Department of Defense
Fiscal Year (FY) 2014 President's Budget Submission

April 2013

Navy

Justification Book Volume 3 of 5

Research, Development, Test & Evaluation, Navy

Budget Activity 5

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Department of Defense
FY 2014 President's Budget
Exhibit R-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Feb 2013

Appropriation	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base
Research, Development, Test & Eval, Navy	17,723,271	17,848,141	60,119		17,908,260	15,974,780
Total Research, Development, Test & Evaluation	17,723,271	17,848,141	60,119		17,908,260	15,974,780

R-1C: FY 2014 President's Budget (Published Version), as of February 27, 2013 at 13:28:53
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Department of Defense
FY 2014 President's Budget
Exhibit R-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

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Summary Recap of Budget Activities	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base
Basic Research	590,619	605,021			605,021	615,306
Applied Research	812,531	790,302			790,302	834,538
Advanced Technology Development	674,173	584,402			584,402	583,116
Advanced Component Development & Prototypes	4,361,733	4,335,297	4,600		4,339,897	4,641,385
System Development & Demonstration	5,980,572	5,747,232	2,173		5,749,405	5,028,476
Management Support	1,167,031	845,077	5,200		850,277	886,137
Operational Systems Development	4,136,612	3,975,546	48,146		4,023,692	3,385,822
Undistributed		965,264			965,264	
Total Research, Development, Test & Evaluation	17,723,271	17,848,141	60,119		17,908,260	15,974,780
Summary Recap of FYDP Programs						
Strategic Forces	150,203	161,263			161,263	153,018
General Purpose Forces	1,429,687	1,422,932	6,762		1,429,694	1,489,417
Intelligence and Communications	1,327,153	1,176,330	7,600		1,183,930	671,724
Research and Development	13,393,865	12,883,923	11,973		12,895,896	12,391,516
Central Supply and Maintenance	80,174	87,270			87,270	83,973
Administration and Associated Activities	441	965,264			965,264	
Classified Programs	1,341,748	1,151,159	33,784		1,184,943	1,185,132
Total Research, Development, Test & Evaluation	17,723,271	17,848,141	60,119		17,908,260	15,974,780

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(Dollars in Thousands)

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	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base
Summary Recap of Non-RDT&E Title FYDP Programs						
Mobility Forces	50,632	42,811			42,811	56,058
Total Research, Development, Test & Evaluation	50,632	42,811			42,811	56,058

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Basic Research	590,619	605,021			605,021	615,306
Applied Research	812,531	790,302			790,302	834,538
Advanced Technology Development	674,173	584,402			584,402	583,116
Advanced Component Development & Prototypes	4,361,733	4,335,297	4,600		4,339,897	4,641,385
System Development & Demonstration	5,980,572	5,747,232	2,173		5,749,405	5,028,476
Management Support	1,167,031	845,077	5,200		850,277	886,137
Operational Systems Development	4,136,612	3,975,546	48,146		4,023,692	3,385,822
Undistributed		965,264			965,264	
Total Research, Development, Test & Evaluation	17,723,271	17,848,141	60,119		17,908,260	15,974,780
Summary Recap of FYDP Programs						
Strategic Forces	150,203	161,263			161,263	153,018
General Purpose Forces	1,429,687	1,422,932	6,762		1,429,694	1,489,417
Intelligence and Communications	1,327,153	1,176,330	7,600		1,183,930	671,724
Research and Development	13,393,865	12,883,923	11,973		12,895,896	12,391,516
Central Supply and Maintenance	80,174	87,270			87,270	83,973
Administration and Associated Activities	441	965,264			965,264	
Classified Programs	1,341,748	1,151,159	33,784		1,184,943	1,185,132
Total Research, Development, Test & Evaluation	17,723,271	17,848,141	60,119		17,908,260	15,974,780

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Department of the Navy
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(Dollars in Thousands)

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Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base	Sec
1	0601103N	University Research Initiatives	01	126,836	113,690			113,690	112,617	U
2	0601152N	In-House Laboratory Independent Research	01	17,642	18,261			18,261	18,230	U
3	0601153N	Defense Research Sciences	01	446,141	473,070			473,070	484,459	U
	Basic Research			590,619	605,021			605,021	615,306	
4	0602114N	Power Projection Applied Research	02	98,452	89,189			89,189	104,513	U
5	0602123N	Force Protection Applied Research	02	194,050	143,301			143,301	145,307	U
6	0602131M	Marine Corps Landing Force Technology	02	43,901	46,528			46,528	47,334	U
7	0602235N	Common Picture Applied Research	02	70,935	41,696			41,696	34,163	U
8	0602236N	Warfighter Sustainment Applied Research	02	97,107	44,127			44,127	49,689	U
9	0602271N	Electromagnetic Systems Applied Research	02	104,457	78,228			78,228	97,701	U
10	0602435N	Ocean Warfighting Environment Applied Research	02	46,891	49,635			49,635	45,685	U
11	0602651M	Joint Non-Lethal Weapons Applied Research	02	4,652	5,973			5,973	6,060	U
12	0602747N	Undersea Warfare Applied Research	02	114,251	96,814			96,814	103,050	U
13	0602750N	Future Naval Capabilities Applied Research	02		162,417			162,417	169,710	U
14	0602782N	Mine and Expeditionary Warfare Applied Research	02	37,835	32,394			32,394	31,326	U
	Applied Research			812,531	790,302			790,302	834,538	
15	0603114N	Power Projection Advanced Technology	03	103,710	56,543			56,543	48,201	U
16	0603123N	Force Protection Advanced Technology	03	41,666	18,616			18,616	28,328	U
17	0603235N	Common Picture Advanced Technology	03	46,530						U
18	0603236N	Warfighter Sustainment Advanced Technology	03	68,955						U

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Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base	Sec
19	0603271N	Electromagnetic Systems Advanced Technology	03	125,674	54,858			54,858	56,179	U
20	0603640M	USMC Advanced Technology Demonstration (ATD)	03	120,141	130,598			130,598	132,400	U
21	0603651M	Joint Non-Lethal Weapons Technology Development	03	12,035	11,706			11,706	11,854	U
22	0603673N	Future Naval Capabilities Advanced Technology Development	03		256,382			256,382	247,931	U
23	0603729N	Warfighter Protection Advanced Technology	03	55,867	3,880			3,880	4,760	U
24	0603747N	Undersea Warfare Advanced Technology	03	43,729						U
25	0603758N	Navy Warfighting Experiments and Demonstrations	03	50,062	51,819			51,819	51,463	U
26	0603782N	Mine and Expeditionary Warfare Advanced Technology	03	5,804					2,000	U
		Advanced Technology Development		674,173	584,402			584,402	583,116	
27	0603207N	Air/Ocean Tactical Applications	04	46,274	34,085			34,085	42,246	U
28	0603216N	Aviation Survivability	04	10,720	8,783			8,783	5,591	U
29	0603237N	Deployable Joint Command and Control	04	3,418	3,773			3,773	3,262	U
30	0603251N	Aircraft Systems	04	10,040	24,512			24,512	74	U
31	0603254N	ASW Systems Development	04	7,610	8,090			8,090	7,964	U
32	0603261N	Tactical Airborne Reconnaissance	04	8,294	5,301			5,301	5,257	U
33	0603382N	Advanced Combat Systems Technology	04	1,107	1,506			1,506	1,570	U
34	0603502N	Surface and Shallow Water Mine Countermeasures	04	126,760	190,622			190,622	168,040	U
35	0603506N	Surface Ship Torpedo Defense	04	122,311	93,346			93,346	88,649	U
36	0603512N	Carrier Systems Development	04	61,909	108,871			108,871	83,902	U

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37	0603525N	PILOT FISH	04	98,052	101,169			101,169	108,713	U
38	0603527N	RETRACT LARCH	04	80,180	74,312			74,312	9,316	U
39	0603536N	RETRACT JUNIPER	04	120,904	90,730			90,730	77,108	U
40	0603542N	Radiological Control	04	1,312	777			777	762	U
41	0603553N	Surface ASW	04	38,943	6,704			6,704	2,349	U
42	0603561N	Advanced Submarine System Development	04	843,646	555,123			555,123	852,977	U
43	0603562N	Submarine Tactical Warfare Systems	04	9,008	9,368			9,368	8,764	U
44	0603563N	Ship Concept Advanced Design	04	16,837	24,609			24,609	20,501	U
45	0603564N	Ship Preliminary Design & Feasibility Studies	04	17,611	13,710			13,710	27,052	U
46	0603570N	Advanced Nuclear Power Systems	04	463,683	249,748			249,748	428,933	U
47	0603573N	Advanced Surface Machinery Systems	04	17,721	29,897			29,897	27,154	U
48	0603576N	CHALK EAGLE	04	573,676	509,988			509,988	519,140	U
49	0603581N	Littoral Combat Ship (LCS)	04	297,125	429,420			429,420	406,389	U
50	0603582N	Combat System Integration	04	48,999	56,551			56,551	36,570	U
51	0603609N	Conventional Munitions	04	4,660	7,342			7,342	8,404	U
52	0603611M	Marine Corps Assault Vehicles	04	37,000	95,182			95,182	136,967	U
53	0603635M	Marine Corps Ground Combat/Support System	04	52,992	10,496			10,496	1,489	U
54	0603654N	Joint Service Explosive Ordnance Development	04	33,012	52,331	4,600		56,931	38,422	U
55	0603658N	Cooperative Engagement	04	54,422	56,512			56,512	69,312	U
56	0603713N	Ocean Engineering Technology Development	04	9,802	7,029			7,029	9,196	U

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57	0603721N	Environmental Protection	04	21,407	21,080			21,080	18,850	U
58	0603724N	Navy Energy Program	04	69,844	55,324			55,324	45,618	U
59	0603725N	Facilities Improvement	04	3,754	3,401			3,401	3,019	U
60	0603734N	CHALK CORAL	04	76,540	45,966			45,966	144,951	U
61	0603739N	Navy Logistic Productivity	04	4,054	3,811			3,811	5,797	U
62	0603746N	RETRACT MAPLE	04	272,049	341,305			341,305	308,131	U
63	0603748N	LINK PLUMERIA	04	54,816	181,220			181,220	195,189	U
64	0603751N	RETRACT ELM	04	114,374	174,014			174,014	56,358	U
65	0603764N	LINK EVERGREEN	04	142,858	68,654			68,654	55,378	U
66	0603787N	Special Processes	04	42,805	44,487			44,487	48,842	U
67	0603790N	NATO Research and Development	04	9,402	9,389			9,389	7,509	U
68	0603795N	Land Attack Technology	04	411	16,132			16,132	5,075	U
69	0603851M	Joint Non-Lethal Weapons Testing	04	40,189	44,994			44,994	51,178	U
70	0603860N	Joint Precision Approach and Landing Systems - Dem/Val	04	95,097	137,369			137,369	205,615	U
71	0603889N	Counterdrug RDT&E Projects	04	7,354						U
72	0604272N	Tactical Air Directional Infrared Countermeasures (TADIRCM)	04	71,738	73,934			73,934	37,227	U
73	0604279N	ASE Self-Protection Optimization	04	676	711			711	169	U
74	0604653N	Joint Counter Radio Controlled IED Electronic Warfare (JCREW)	04	60,853	71,300			71,300	20,874	U

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75	0604659N	Precision Strike Weapons Development Program	04	3,381	5,654			5,654	2,257	U
76	0604707N	Space and Electronic Warfare (SEW) Architecture/ Engineering Support	04	39,250	31,549			31,549	38,327	U
77	0604786N	Offensive Anti-Surface Warfare Weapon Development	04		86,801			86,801	135,985	U
78	0605812M	Joint Light Tactical Vehicle (JLTV) Engineering and Manufacturing Development Ph	04		44,500			44,500	50,362	U
79	0303354N	ASW Systems Development - MIP	04	1,078	13,172			13,172	8,448	U
80	0304270N	Electronic Warfare Development - MIP	04	11,775	643			643	153	U
		Advanced Component Development & Prototypes		4,361,733	4,335,297	4,600		4,339,897	4,641,385	
81	0604212N	Other Helo Development	05	41,473	33,978			33,978	40,558	U
82	0604214N	AV-8B Aircraft - Eng Dev	05	22,810	32,789			32,789	35,825	U
83	0604215N	Standards Development	05	47,406	84,988			84,988	99,891	U
84	0604216N	Multi-Mission Helicopter Upgrade Development	05	16,876	6,866			6,866	17,565	U
85	0604218N	Air/Ocean Equipment Engineering	05	5,492	4,060			4,060	4,026	U
86	0604221N	P-3 Modernization Program	05	3,294	3,451			3,451	1,791	U
87	0604230N	Warfare Support System	05	9,761	13,071			13,071	11,725	U
88	0604231N	Tactical Command System	05	75,683	71,645			71,645	68,463	U
89	0604234N	Advanced Hawkeye	05	129,414	119,065			119,065	152,041	U
90	0604245N	H-1 Upgrades	05	65,617	31,105			31,105	47,123	U
91	0604261N	Acoustic Search Sensors	05	49,353	34,299			34,299	30,208	U
92	0604262N	V-22A	05	71,938	54,412			54,412	43,084	U

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93	0604264N	Air Crew Systems Development	05	2,620	2,717			2,717	11,401	U
94	0604269N	EA-18	05	14,770	13,009			13,009	11,138	U
95	0604270N	Electronic Warfare Development	05	93,692	51,304			51,304	34,964	U
96	0604273N	VH-71A Executive Helo Development	05	58,994	61,163			61,163	94,238	U
97	0604274N	Next Generation Jammer (NGJ)	05	160,793	187,024			187,024	257,796	U
98	0604280N	Joint Tactical Radio System - Navy (JTRS-Navy)	05	601,347	337,480			337,480	3,302	U
99	0604307N	Surface Combatant Combat System Engineering	05	211,968	260,616			260,616	240,298	U
100	0604311N	LPD-17 Class Systems Integration	05	858	824			824	1,214	U
101	0604329N	Small Diameter Bomb (SDB)	05	23,188	31,064			31,064	46,007	U
102	0604366N	Standard Missile Improvements	05	55,546	63,891			63,891	75,592	U
103	0604373N	Airborne MCM	05	48,614	73,246			73,246	117,854	U
104	0604376M	Marine Air Ground Task Force (MAGTF) Electronic Warfare (EW) for Aviation	05		10,568			10,568	10,080	U
105	0604378N	Naval Integrated Fire Control - Counter Air Systems Engineering	05	28,279	39,974			39,974	21,413	U
106	0604404N	Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) System	05	71,182	122,481			122,481	146,683	U
107	0604501N	Advanced Above Water Sensors	05	245,946	255,516			255,516	275,871	U
108	0604503N	SSN-688 and Trident Modernization	05	89,083	82,620			82,620	89,672	U
109	0604504N	Air Control	05	6,116	5,633			5,633	13,754	U
110	0604512N	Shipboard Aviation Systems	05	47,903	55,826			55,826	69,615	U

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111	0604518N	Combat Information Center Conversion	05	3,315	918			918		U
112	0604558N	New Design SSN	05	109,117	165,230			165,230	121,566	U
113	0604562N	Submarine Tactical Warfare System	05	47,318	49,141			49,141	49,143	U
114	0604567N	Ship Contract Design/ Live Fire T&E	05	121,008	196,737			196,737	155,254	U
115	0604574N	Navy Tactical Computer Resources	05	3,003	3,889			3,889	3,689	U
116	0604601N	Mine Development	05	3,874	8,335			8,335	5,041	U
117	0604610N	Lightweight Torpedo Development	05	25,457	49,818			49,818	26,444	U
118	0604654N	Joint Service Explosive Ordnance Development	05	11,954	10,099			10,099	8,897	U
119	0604703N	Personnel, Training, Simulation, and Human Factors	05	12,552	7,348			7,348	6,233	U
120	0604727N	Joint Standoff Weapon Systems	05	7,303	5,518			5,518	442	U
121	0604755N	Ship Self Defense (Detect & Control)	05	71,094	87,662			87,662	130,360	U
122	0604756N	Ship Self Defense (Engage: Hard Kill)	05	20,041	64,079			64,079	50,209	U
123	0604757N	Ship Self Defense (Engage: Soft Kill/EW)	05	179,033	151,489			151,489	164,799	U
124	0604761N	Intelligence Engineering	05	2,196					1,984	U
125	0604771N	Medical Development	05	32,118	12,707	2,173		14,880	9,458	U
126	0604777N	Navigation/ID System	05	38,389	47,764			47,764	51,430	U
127	0604800M	Joint Strike Fighter (JSF) - EMD	05	617,695	737,149			737,149	512,631	U
128	0604800N	Joint Strike Fighter (JSF) - EMD	05	632,042	743,926			743,926	534,187	U
129	0605013M	Information Technology Development	05	19,080	12,143			12,143	5,564	U
130	0605013N	Information Technology Development	05	28,919	72,209			72,209	69,659	U

R-1C: FY 2014 President's Budget (Published Version), as of February 27, 2013 at 13:28:53
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Department of the Navy
FY 2014 President's Budget
Exhibit R-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Feb 2013

Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base	Sec
131	0605018N	Navy Integrated Military Human Resources System (N-IMHRS)	05	2,367						U
132	0605212N	CH-53K RDTE	05	606,255	606,204			606,204	503,180	U
133	0605450N	Joint Air-to-Ground Missile (JAGM)	05	108,395					5,500	U
134	0605500N	Multi-mission Maritime Aircraft (MMA)	05	595,532	421,102			421,102	317,358	U
135	0204202N	DDG-1000	05	249,780	124,655			124,655	187,910	U
136	0304231N	Tactical Command System - MIP	05	979	1,170			1,170	2,140	U
137	0304785N	Tactical Cryptologic Systems	05	31,740	23,255			23,255	9,406	U
138	0305124N	Special Applications Program	05	100,000					22,800	U
		System Development & Demonstration		5,980,572	5,747,232	2,173		5,749,405	5,028,476	
139	0604256N	Threat Simulator Development	06	27,687	30,790			30,790	43,261	U
140	0604258N	Target Systems Development	06	52,561	59,221			59,221	71,872	U
141	0604759N	Major T&E Investment	06	36,670	35,894			35,894	38,033	U
142	0605126N	Joint Theater Air and Missile Defense Organization	06	2,896	7,573			7,573	1,352	U
143	0605152N	Studies and Analysis Support - Navy	06	18,431	20,963			20,963	5,566	U
144	0605154N	Center for Naval Analyses	06	46,312	46,856			46,856	48,345	U
145	0605502N	Small Business Innovative Research	06	325,202						U
146	0605804N	Technical Information Services	06	1,230	796			796	637	U
147	0605853N	Management, Technical & International Support	06	56,441	32,782			32,782	76,585	U
148	0605856N	Strategic Technical Support	06	3,192	3,306			3,306	3,221	U

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Department of the Navy
FY 2014 President's Budget
Exhibit R-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Feb 2013

Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base	Sec
149	0605861N	RDT&E Science and Technology Management	06	72,778	70,302			70,302	72,725	U
150	0605863N	RDT&E Ship and Aircraft Support	06	134,087	144,033			144,033	141,778	U
151	0605864N	Test and Evaluation Support	06	333,344	342,298			342,298	331,219	U
152	0605865N	Operational Test and Evaluation Capability	06	16,464	16,399			16,399	16,565	U
153	0605866N	Navy Space and Electronic Warfare (SEW) Support	06	4,152	4,579	5,200		9,779	3,265	U
154	0605867N	SEW Surveillance/Reconnaissance Support	06	7,642	8,000			8,000	7,134	U
155	0605873M	Marine Corps Program Wide Support	06	26,303	18,490			18,490	24,082	U
156	0305885N	Tactical Cryptologic Activities	06	1,198	2,795			2,795	497	U
157	0909999N	Financing for Cancelled Account Adjustments	06	441						U
		Management Support		1,167,031	845,077	5,200		850,277	886,137	
159	0604227N	HARPOON Modifications	07						699	U
160	0604402N	Unmanned Combat Air Vehicle (UCAV) Advanced Component and Prototype Development	07	202,188	142,282			142,282	20,961	U
161	0604717M	Marine Corps Combat Services Support	07	392						U
162	0604766M	Marine Corps Data Systems	07	1,617					35	U
163	0605525N	Carrier Onboard Delivery (COD) Follow On	07						2,460	U
164	0605555N	Strike Weapons Development	07						9,757	U
165	0101221N	Strategic Sub & Weapons System Support	07	87,454	105,892			105,892	98,057	U
166	0101224N	SSBN Security Technology Program	07	32,464	34,729			34,729	31,768	U
167	0101226N	Submarine Acoustic Warfare Development	07	6,210	1,434			1,434	1,464	U

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Department of the Navy
FY 2014 President's Budget
Exhibit R-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

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Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base	Sec
168	0101402N	Navy Strategic Communications	07	24,075	19,208			19,208	21,729	U
169	0203761N	Rapid Technology Transition (RTT)	07	32,959	25,566			25,566	13,561	U
170	0204136N	F/A-18 Squadrons	07	148,313	188,299			188,299	131,118	U
171	0204152N	E-2 Squadrons	07	11,276	8,610			8,610	1,971	U
172	0204163N	Fleet Telecommunications (Tactical)	07	2,035	15,695			15,695	46,155	U
173	0204228N	Surface Support	07	3,292	4,171			4,171	2,374	U
174	0204229N	Tomahawk and Tomahawk Mission Planning Center (TMPC)	07	8,581	11,265			11,265	12,407	U
175	0204311N	Integrated Surveillance System	07	29,275	45,922			45,922	41,609	U
176	0204413N	Amphibious Tactical Support Units (Displacement Craft)	07	5,085	8,435			8,435	7,240	U
177	0204460M	Ground/Air Task Oriented Radar (G/ATOR)	07		75,088			75,088	78,208	U
178	0204571N	Consolidated Training Systems Development	07	38,055	20,229			20,229	45,124	U
179	0204574N	Cryptologic Direct Support	07	1,447	1,756			1,756	2,703	U
180	0204575N	Electronic Warfare (EW) Readiness Support	07	17,686	19,843			19,843	19,563	U
181	0205601N	HARM Improvement	07	11,748	11,477			11,477	13,586	U
182	0205604N	Tactical Data Links	07	62,367	118,818			118,818	197,538	U
183	0205620N	Surface ASW Combat System Integration	07	28,927	27,342			27,342	31,863	U
184	0205632N	MK-48 ADCAP	07	45,130	28,717			28,717	12,806	U
185	0205633N	Aviation Improvements	07	101,135	89,157			89,157	88,607	U
186	0205658N	Navy Science Assistance Program	07	1,937	3,450			3,450		U

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Department of the Navy
FY 2014 President's Budget
Exhibit R-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

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Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base	Sec
187	0205675N	Operational Nuclear Power Systems	07	82,705	86,435			86,435	116,928	U
188	0206313M	Marine Corps Communications Systems	07	313,832	219,054			219,054	178,753	U
189	0206623M	Marine Corps Ground Combat/Supporting Arms Systems	07	153,435	181,693			181,693	139,594	U
190	0206624M	Marine Corps Combat Services Support	07	45,803	58,393	6,762		65,155	42,647	U
191	0206625M	USMC Intelligence/Electronic Warfare Systems (MIP)	07	19,627	22,966			22,966	34,394	U
192	0207161N	Tactical AIM Missiles	07	8,463	21,107			21,107	39,159	U
193	0207163N	Advanced Medium Range Air-to-Air Missile (AMRAAM)	07	2,803	2,857			2,857	2,613	U
194	0208058N	Joint High Speed Vessel (JHSV)	07	3,991	1,932			1,932	986	U
199	0303109N	Satellite Communications (SPACE)	07	258,812	188,482			188,482	66,231	U
200	0303138N	Consolidated Afloat Network Enterprise Services (CANES)	07	24,039	16,749			16,749	24,476	U
201	0303140N	Information Systems Security Program	07	38,747	26,307			26,307	23,531	U
202	0303150M	WWMCCS/Global Command and Control System	07	1,226	500			500		U
203	0303238N	Consolidated Afloat Network Enterprise Services (CANES) - MIP	07	6,602						U
205	0305149N	COBRA JUDY	07	40,605	17,091			17,091		U
206	0305160N	Navy Meteorological and Ocean Sensors-Space (METOC)	07	820	810			810	742	U
207	0305192N	Military Intelligence Program (MIP) Activities	07	4,099	8,617			8,617	4,804	U
208	0305204N	Tactical Unmanned Aerial Vehicles	07	9,353	9,066			9,066	8,381	U
209	0305206N	Airborne Reconnaissance Systems	07	20,000						U

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Department of the Navy
FY 2014 President's Budget
Exhibit R-1 FY 2014 President's Budget
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(Dollars in Thousands)

27 Feb 2013

Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base	Sec
210	0305207N	Manned Reconnaissance Systems	07		30,654			30,654		U
211	0305208M	Distributed Common Ground/Surface Systems	07	22,309	25,917			25,917	5,535	U
212	0305208N	Distributed Common Ground/Surface Systems	07	27,495	14,676			14,676	19,718	U
213	0305220N	RQ-4 UAV	07	548,617	657,483			657,483	375,235	U
214	0305231N	MQ-8 UAV	07	110,011	99,600			99,600	48,713	U
215	0305232M	RQ-11 UAV	07	979	495			495	102	U
216	0305233N	RQ-7 UAV	07	872	863	7,600		8,463	710	U
217	0305234N	Small (Level 0) Tactical UAS (STUASL0)	07	20,287	9,734			9,734	5,013	U
218	0305237N	Medium Range Maritime UAS	07	13,237						U
219	0305239M	RQ-21A	07	24,201	22,343			22,343	11,122	U
220	0305241N	Multi-Intelligence Sensor Development	07						28,851	U
221	0308601N	Modeling and Simulation Support	07	8,072	5,908			5,908	5,116	U
222	0702207N	Depot Maintenance (Non-IF)	07	24,473	27,391			27,391	28,042	U
223	0708011N	Industrial Preparedness	07	51,778	54,879			54,879	50,933	U
224	0708730N	Maritime Technology (MARITECH)	07	3,923	5,000			5,000	4,998	U
9999	9999999999	Classified Programs		1,341,748	1,151,159	33,784		1,184,943	1,185,132	U
		Operational Systems Development		4,136,612	3,975,546	48,146		4,023,692	3,385,822	
225	0901560N	Continuing Resolution Programs	20		965,264			965,264		U
		Undistributed			965,264			965,264		

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Department of the Navy
FY 2014 President's Budget
Exhibit R-1 FY 2014 President's Budget
Total Obligational Authority
(Dollars in Thousands)

27 Feb 2013

Appropriation: 1319N Research, Development, Test & Eval, Navy

Line No	Program Element Number	Item	Act	FY 2012 (Base & OCO)	FY 2013 Base Request with CR Adj*	FY 2013 OCO Request with CR Adj*	Emergency Disaster Relief Act of 2013	FY 2013 Total Request with CR Adj*	FY 2014 Base	Sec
Total Research, Development, Test & Eval, Navy				17,723,271	17,848,141	60,119		17,908,260	15,974,780	

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Program Element Table of Contents (by Budget Activity then Line Item Number)

Budget Activity 05: System Development & Demonstration (SDD)
Appropriation 1319: Research, Development, Test & Evaluation, Navy

Line Item	Budget Activity	Program Element Number	Program Element Title	Page
81	05	0604212N	Other Helicopter Development	Volume 3 - 1
82	05	0604214N	AV-8B Aircraft - Engine Dev	Volume 3 - 35
83	05	0604215N	Standards Development	Volume 3 - 49
84	05	0604216N	Multi-Mssn Helicopter Upgrade Dev	Volume 3 - 101
85	05	0604218N	Air/Ocean Equipment Engineering	Volume 3 - 111
86	05	0604221N	P-3 Modernization Program	Volume 3 - 127
87	05	0604230N	Warfare Support System	Volume 3 - 141
88	05	0604231N	Tactical Command System	Volume 3 - 167
89	05	0604234N	Advanced Hawkeye	Volume 3 - 247
90	05	0604245N	H-1 Upgrades	Volume 3 - 277
91	05	0604261N	Acoustic Search Sensors	Volume 3 - 295
92	05	0604262N	V-22A	Volume 3 - 311
93	05	0604264N	Air Crew Systems Development	Volume 3 - 321
94	05	0604269N	EA-18 Squadrons	Volume 3 - 339
95	05	0604270N	Electronic Warfare (EW) Dev	Volume 3 - 349

Budget Activity 05: System Development & Demonstration (SDD)
Appropriation 1319: Research, Development, Test & Evaluation, Navy

Line Item	Budget Activity	Program Element Number	Program Element Title	Page
96	05	0604273N	VH-71 Executive Helo Development	Volume 3 - 383
97	05	0604274N	Next Generation Jammer (NGJ)	Volume 3 - 393
98	05	0604280N	JT Tact Radio Sys (JTRS)	Volume 3 - 403
99	05	0604307N	Surface Combatant Cmbt Sys Eng	Volume 3 - 449
100	05	0604311N	LPD-17 Class Systems Integration	Volume 3 - 471
101	05	0604329N	Small Diameter Bomb (SDB)	Volume 3 - 479
102	05	0604366N	Standard Missile Improvements	Volume 3 - 497
103	05	0604373N	Airborne Mine Countermeasures (AMCM)	Volume 3 - 515
104	05	0604376M	(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio	Volume 3 - 569
105	05	0604378N	Nav Integrated Fire Control-Counter Air Sys Eng	Volume 3 - 579
106	05	0604404N	(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys	Volume 3 - 591
107	05	0604501N	Advanced Above Water Sensors	Volume 3 - 603
108	05	0604503N	SSN-688 & Trident Modernization	Volume 3 - 645
109	05	0604504N	Air Control	Volume 3 - 685
110	05	0604512N	Shipboard Aviation Systems	Volume 3 - 705
111	05	0604518N	Combat Information Center Conv	Volume 3 - 727
112	05	0604558N	New Design SSN	Volume 3 - 735
113	05	0604562N	Submarine Tactical Warfare System	Volume 3 - 767

Budget Activity 05: System Development & Demonstration (SDD)
Appropriation 1319: Research, Development, Test & Evaluation, Navy

Line Item	Budget Activity	Program Element Number	Program Element Title	Page
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115	05	0604574N	Navy Tactical Computer Resources	Volume 3 - 825
116	05	0604601N	Mine Development	Volume 3 - 835
117	05	0604610N	Lightweight Torpedo Development	Volume 3 - 843
118	05	0604654N	JT Service EOD	Volume 3 - 853
119	05	0604703N	Personnel, Trng, Sim, & Human Factors	Volume 3 - 859
120	05	0604727N	Joint Standoff Weapon Systems	Volume 3 - 871
121	05	0604755N	Ship Self Def (Detect & Cntrl)	Volume 3 - 881
122	05	0604756N	Ship Self Def (Engage: Hard Kill)	Volume 3 - 917
123	05	0604757N	Ship Self Def (Engage: Soft Kill/EW)	Volume 3 - 941
124	05	0604761N	Intelligence Engineering	Volume 3 - 991
125	05	0604771N	Medical Development	Volume 3 - 997
126	05	0604777N	Navigation/Id System	Volume 3 - 1019
127	05	0604800M	(U)Joint Strike Fighter (JSF) - EMD	Volume 3 - 1059
128	05	0604800N	JT Strike Fighter (JSF) - EMD	Volume 3 - 1099
129	05	0605013M	Marine Corps IT Dev/Mod	Volume 3 - 1145
130	05	0605013N	Information Technology Development	Volume 3 - 1161
131	05	0605018N	(U)Navy Integrated Mil Human Res Sys(N-IMHRS)	Volume 3 - 1253

Budget Activity 05: System Development & Demonstration (SDD)
Appropriation 1319: Research, Development, Test & Evaluation, Navy

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133	05	0605450N	Joint Air-to-ground Missile (JAGM)	Volume 3 - 1269
134	05	0605500N	Multi-mssn Maritime Aircraft (MMA) (P-8A)	Volume 3 - 1277
135	05	0204202N	DDG-1000	Volume 3 - 1307
136	05	0304231N	Tactical Command System - MIP	Volume 3 - 1323
137	05	0304785N	Tactical Cryptologic Systems	Volume 3 - 1331
138	05	0305124N	Special Applications Program	Volume 3 - 1349

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(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio	0604376M	104	05	Volume 3 - 569
(U)Navy Integrated Mil Human Res Sys(N-IMHRS)	0605018N	131	05	Volume 3 - 1253
(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys	0604404N	106	05	Volume 3 - 591
AV-8B Aircraft - Engine Dev	0604214N	82	05	Volume 3 - 35
Acoustic Search Sensors	0604261N	91	05	Volume 3 - 295
Advanced Above Water Sensors	0604501N	107	05	Volume 3 - 603
Advanced Hawkeye	0604234N	89	05	Volume 3 - 247
Air Control	0604504N	109	05	Volume 3 - 685
Air Crew Systems Development	0604264N	93	05	Volume 3 - 321
Air/Ocean Equipment Engineering	0604218N	85	05	Volume 3 - 111
Airborne Mine Countermeasures (AMCM)	0604373N	103	05	Volume 3 - 515
CH-53K	0605212N	132	05	Volume 3 - 1257
Combat Information Center Conv	0604518N	111	05	Volume 3 - 727
DDG-1000	0204202N	135	05	Volume 3 - 1307
EA-18 Squadrons	0604269N	94	05	Volume 3 - 339
Electronic Warfare (EW) Dev	0604270N	95	05	Volume 3 - 349

Program Element Title	Program Element Number	Line Item	Budget Activity	Page
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Information Technology Development	0605013N	130	05	Volume 3 - 1161
Intelligence Engineering	0604761N	124	05	Volume 3 - 991
JT Service EOD	0604654N	118	05	Volume 3 - 853
JT Strike Fighter (JSF) - EMD	0604800N	128	05	Volume 3 - 1099
JT Tact Radio Sys (JTRS)	0604280N	98	05	Volume 3 - 403
Joint Air-to-ground Missile (JAGM)	0605450N	133	05	Volume 3 - 1269
Joint Standoff Weapon Systems	0604727N	120	05	Volume 3 - 871
LPD-17 Class Systems Integration	0604311N	100	05	Volume 3 - 471
Lightweight Torpedo Development	0604610N	117	05	Volume 3 - 843
Marine Corps IT Dev/Mod	0605013M	129	05	Volume 3 - 1145
Medical Development	0604771N	125	05	Volume 3 - 997
Mine Development	0604601N	116	05	Volume 3 - 835
Multi-Mssn Helicopter Upgrade Dev	0604216N	84	05	Volume 3 - 101
Multi-mssn Maritime Aircraft (MMA) (P-8A)	0605500N	134	05	Volume 3 - 1277
Nav Integrated Fire Control-Counter Air Sys Eng	0604378N	105	05	Volume 3 - 579
Navigation/Id System	0604777N	126	05	Volume 3 - 1019
Navy Tactical Computer Resources	0604574N	115	05	Volume 3 - 825
New Design SSN	0604558N	112	05	Volume 3 - 735

Program Element Title	Program Element Number	Line Item	Budget Activity	Page
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Other Helicopter Development	0604212N	81	05	Volume 3 - 1
P-3 Modernization Program	0604221N	86	05	Volume 3 - 127
Personnel, Trng, Sim, & Human Factors	0604703N	119	05	Volume 3 - 859
SSN-688 & Trident Modernization	0604503N	108	05	Volume 3 - 645
Ship Contract Design/ Live Fire T&E	0604567N	114	05	Volume 3 - 779
Ship Self Def (Detect & Cntrl)	0604755N	121	05	Volume 3 - 881
Ship Self Def (Engage: Hard Kill)	0604756N	122	05	Volume 3 - 917
Ship Self Def (Engage: Soft Kill/EW)	0604757N	123	05	Volume 3 - 941
Shipboard Aviation Systems	0604512N	110	05	Volume 3 - 705
Small Diameter Bomb (SDB)	0604329N	101	05	Volume 3 - 479
Special Applications Program	0305124N	138	05	Volume 3 - 1349
Standard Missile Improvements	0604366N	102	05	Volume 3 - 497
Standards Development	0604215N	83	05	Volume 3 - 49
Submarine Tactical Warfare System	0604562N	113	05	Volume 3 - 767
Surface Combatant Cmbt Sys Eng	0604307N	99	05	Volume 3 - 449
Tactical Command System	0604231N	88	05	Volume 3 - 167
Tactical Command System - MIP	0304231N	136	05	Volume 3 - 1323
Tactical Cryptologic Systems	0304785N	137	05	Volume 3 - 1331

Program Element Title	Program Element Number	Line Item	Budget Activity	Page
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VH-71 Executive Helo Development	0604273N	96	05	Volume 3 - 383
Warfare Support System	0604230N	87	05	Volume 3 - 141

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	732.346	41.473	33.978	40.558	-	40.558	46.130	10.489	6.710	6.785	Continuing	Continuing
1109: *CH/MH-53*	41.477	3.247	2.455	2.668	-	2.668	2.685	2.714	2.789	2.819	Continuing	Continuing
2415: *H-60 Development*	664.860	29.502	29.743	33.773	-	33.773	25.158	0.000	0.000	0.000	0.000	783.036
2460: *VH-3/VH-60*	26.009	1.724	1.780	2.230	-	2.230	11.719	1.742	1.779	1.799	Continuing	Continuing
3355: *MH-XX Development*	0.000	0.000	0.000	1.887	-	1.887	6.568	6.033	2.142	2.167	Continuing	Continuing
9999: *Congressional Adds*	0.000	7.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	7.000
MDAP/MAIS Code(s): 282												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This Program Element includes funding for the development support for improvements to current systems for CH/MH-53, MH-60 development, VH-3/VH-60, and MH-XX. The H-53 is the premier heavy lift helicopter for the Marine Corps and only operational airborne mine sweeping platform for the Navy. H-53 RDT&E efforts focus on trade studies and risk reduction measures to identify candidate survivability, safety, avionics, cargo handling, cockpit and other airframe specific improvements to extend the service life. The MH-60S Helicopter has three primary mission areas; Combat Support, Organic Airborne Mine Countermeasures and Armed Helo. The VH-3/VH-60 is required to provide safe and timely transportation for the President and Vice President of the United States, heads of state and others as directed by the White House Military Office. The MH-XX Development will provide the Navy's next generation of Anti-Submarine Warfare, Surface Warfare, and Logistics support Helicopters.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	42.651	33.978	26.381	-	26.381
Current President's Budget	41.473	33.978	40.558	-	40.558
Total Adjustments	-1.178	0.000	14.177	-	14.177
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.245	0.000			
• SBIR/STTR Transfer	-0.933	0.000			
• Program Adjustments	0.000	0.000	14.028	-	14.028
• Rate/Misc Adjustments	0.000	0.000	0.149	-	0.149

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Project: 9999: *Congressional Adds*		
Congressional Add: *VH-3/VH-60 (Cong)*	7.000	-
Congressional Add Subtotals for Project: 9999	7.000	0.000
Congressional Add Totals for all Projects	7.000	0.000

Change Summary Explanation

Technical: Not Applicable

Schedule:
1109 CH/MH-53: Not Applicable

2415 Airborne Mine Countermeasures (AMCM): The AQS-20A sonar mine detection system and Organic Airborne Surface Influence Sweep systems were removed from the MH-60S AMCM mission set. Initial Operational Test and Evaluation (IOT&E) periods with the Airborne Laser Mine Detection System and Airborne Mine Neutralization System were replaced with Operational Assessments leading to Littoral Combat Ship (LCS) Mine Countermeasures (MCM) Mission Package (MP) IOT&E. The MH-60S AMCM Initial Operational Capability milestone has been moved to follow LCS MCM MP IOT&E.

2415 Forward Firing Weapon: Not Applicable

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604212N: *Other Helicopter Development*

2460 VH-3/VH-60: The schedule has been updated to reflect the evaluation of a wideband Line Of Site system for integration, prototype and test for integration into the VH Communications Suite.
3355 MH-XX Development: Not Applicable

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 1109: *CH/MH-53*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1109: *CH/MH-53*	41.477	3.247	2.455	2.668	-	2.668	2.685	2.714	2.789	2.819	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The H-53 helicopter is the premier heavy lift helicopter for the Marine Corps and the only operational airborne mine sweeping platform for the Navy. Through FY2018, H-53 efforts will continue to develop and qualify components, prior to production and approval decisions, in order to replace obsolete system components. Emphasis will be placed on supportability improvement modifications that will sustain the H-53 aircraft until the transition of the H-53K is complete. These efforts combined, will significantly improve the readiness of the H-53 fleet while reducing long term operational and supportability costs. Modeling and simulation will be used to the maximum practical extent throughout this effort. Manned Flight Simulator will be utilized to develop, install and test interim modifications to existing H-53 legacy avionics, while maintaining the original basic system footprint and functionality. As a part of this effort, a complete Electro Magnetic Vulnerability assessment will be required for the affected and/or modified systems.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: H-53 Avionics	0.544	0.544	0.544
Articles:	0	0	0
FY 2012 Accomplishments: Integrate software applique for cockpit and avionics improvements, to include the development of new sensors. Develop flight control computer and test set design modifications to address anticipated obsolesence issues. Conduct Business Case Analyses to determine impact of high Operation and Support cost drivers and address alternatives to mitigate identified issues.			
FY 2013 Plans: Integrate software applique for cockpit and avionics improvements, to include the development of new sensors. Develop flight control computer and test set design modifications to address anticipated obsolescence issues. Conduct Business Case Analyses to determine impact of high Operation and Support cost drivers and address alternatives to mitigate identified issues.			
FY 2014 Plans: Integrate software applique for cockpit and avionics improvements, to include the development of new sensors. Develop flight control computer and test set design modifications to address anticipated obsolescence issues. Conduct Business Case Analyses to determine impact of high Operation and Support cost drivers and address alternatives to mitigate identified issues.			
Title: H-53 Survivability	0.406	0.405	0.405

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 1109: *CH/MH-53*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:	0	0	0
FY 2012 Accomplishments: Perform trade studies, risk reduction, design, development, model, integration and test activities for H-53 survivability systems to include effectiveness of the ballistic vulnerability (armor) package. ***FY 2013 Plans:*** Perform trade studies, risk reduction, design, development, model, integration and test activities for H-53 survivability systems to include effectiveness of the ballistic vulnerability (armor) package. ***FY 2014 Plans:*** Perform trade studies, risk reduction, design, development, model, integration and test activities for H-53 survivability systems to include effectiveness of the ballistic vulnerability (armor) package.			
Title: H-53 Propulsion	1.241	0.451	0.670
Articles:	0	0	0
FY 2012 Accomplishments: Perform trade studies, risk reduction, design, development, integration and test activities for H-53 T64 engine and related systems. ***FY 2013 Plans:*** Provide in-house, field activity, and contractor support of Integrated Product Teams (IPTs) to allow for studies and analyses, preparation of acquisition documentation and examination of equipment and avionics for the H-53. Efforts include, but are not limited to, government development support, engineering support, product management support, system engineering and logistics support, and travel for the H-53 program. ***FY 2014 Plans:*** Provide in-house, field activity, and contractor support of IPTs to allow for studies and analyses, preparation of acquisition documentation and examination of equipment and avionics for the H-53. Efforts include, but are not limited to, government development support, engineering support, product management support, system engineering and logistics support, and travel for the H-53 program.			
Title: Project Management Support	0.732	0.731	0.725
Articles:	0	0	0
FY 2012 Accomplishments: Provide in-house, field activity, and contractor support of Integrate Product Teams (IPTs)to allow for studies and analyses, preparation of acquisition documentation and examination of equipment and avionics for the H-53. Efforts include, but are not			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 1109: *CH/MH-53*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
limited to, government development support, engineering support, product management support, system engineering and logistics support, and travel for the H-53 program. ***FY 2013 Plans:*** Provide in-house, field activity, and contractor support of IPTs to allow for studies and analyses, preparation of acquisition documentation and examination of equipment and avionics for the H-53. Efforts include, but are not limited to, government development support, engineering support, product management support, system engineering and logistics support, and travel for the H-53 program. ***FY 2014 Plans:*** Provide in-house, field activity, and contractor support of IPTs to allow for studies and analyses, preparation of acquisition documentation and examination of equipment and avionics for the H-53. Efforts include, but are not limited to, government development support, engineering support, product management support, system engineering and logistics support, and travel for the H-53 program.			
Title: H-53 Airframe	0.324	0.324	0.324
Articles:	0	0	0
FY 2012 Accomplishments: Perform trade studies, risk reduction, design, development, integration and test activities for the H-53 airframe to include, but not limited to, main rotorhead, cowlings, aircraft structure, drive train, and various dynamic components. ***FY 2013 Plans:*** Perform trade studies, risk reduction, design, development, integration and test activities for the H-53 airframe to include, but not limited to, main rotor head, cowlings, aircraft structure, drive train, and various dynamic components. ***FY 2014 Plans:*** Perform trade studies, risk reduction, design, development, integration and test activities for the H-53 airframe to include, but not limited to, main rotor head, cowlings, aircraft structure, drive train, and various dynamic components.			
Accomplishments/Planned Programs Subtotals	3.247	2.455	2.668

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0528: *H-53 Series*	117.374	61.437	67.675		67.675	48.586	36.666	33.639	30.953	230.346	1,886.391

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 1109: *CH/MH-53*

D. Acquisition Strategy

This is a non-ACAT program. H-53 RDT&E efforts will focus on trade studies and risk reduction measures to identify candidate survivability, safety, avionics, cargo handling, cockpit and other airframe specific improvements to extend the service life.

E. Performance Metrics

Successfully perform studies, analysis and develop software to address emergent H-53 issues. Successfully support developmental and operation test activities to qualify aircraft modifications/upgrades.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 1109: *CH/MH-53*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	Various	Various:Various	2.493	0.420	Mar 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Ancillary Hardware Development	Various	Various:Various	1.794	0.224	Mar 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWC AD:Patuxent River, MD	2.384	0.524	Nov 2011	0.544	Nov 2012	0.544	Nov 2013	-		0.544	Continuing	Continuing	Continuing
Prior Year Prod Dev no longer funded in the FYDP	Various	Various:Various	14.544	0.000		0.000		0.000		-		0.000	0.000	14.544	
		Subtotal	21.215	1.168		0.544		0.544		0.000		0.544			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	Various	Various:Various	2.071	0.326	Mar 2012	0.379	Mar 2013	0.396	Mar 2014	-		0.396	Continuing	Continuing	Continuing
GFE	Various	NAWC AD:Patuxent River, MD	1.741	0.421	Nov 2011	0.421	Nov 2012	0.640	Nov 2013	-		0.640	Continuing	Continuing	Continuing
		Subtotal	3.812	0.747		0.800		1.036		0.000		1.036			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various:Various	5.143	0.870	Mar 2012	0.700	Mar 2013	0.700	Mar 2014	-		0.700	Continuing	Continuing	Continuing
		Subtotal	5.143	0.870		0.700		0.700		0.000		0.700			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 1109: *CH/MH-53*	

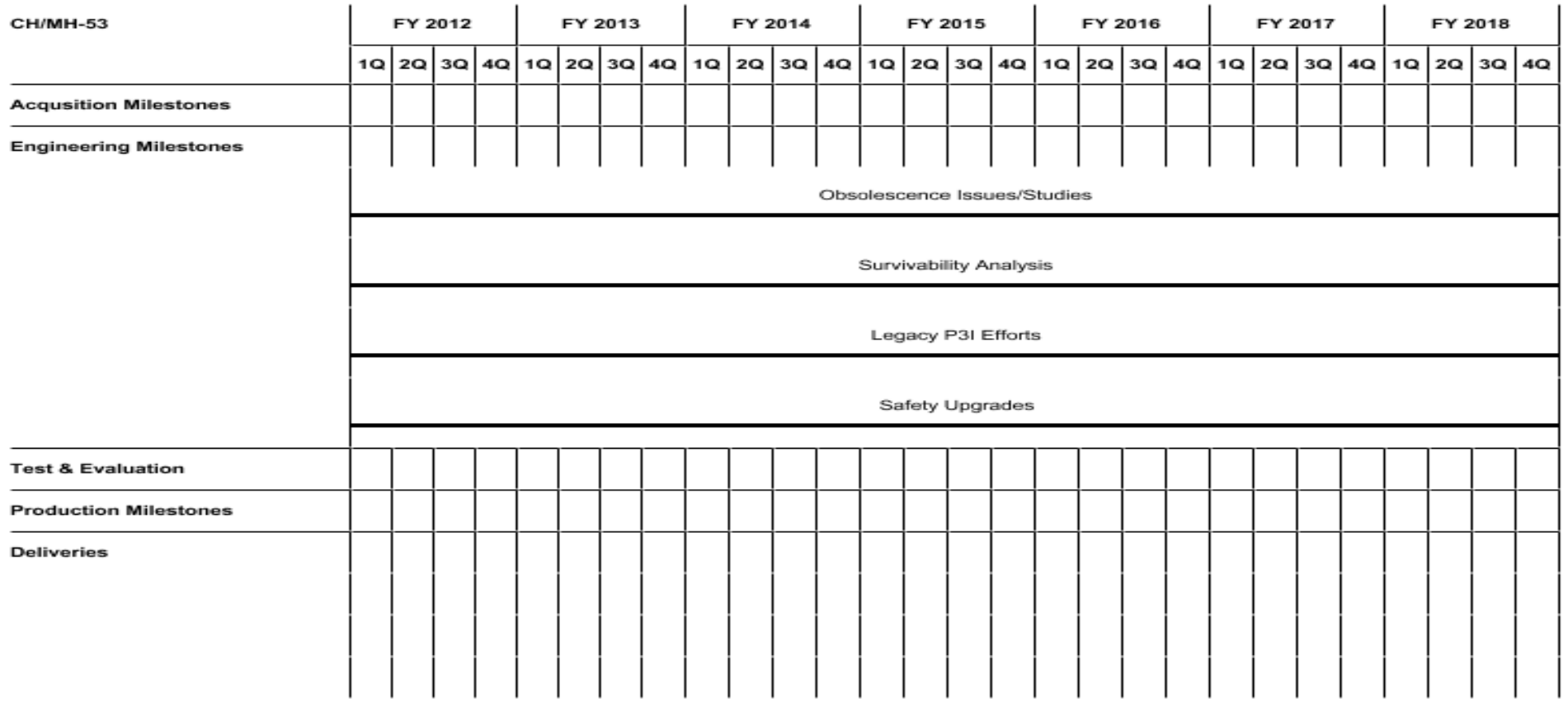
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWC AD:Patuxent River, MD	5.077	0.307	Nov 2011	0.286	Nov 2012	0.286	Nov 2013	-		0.286	Continuing	Continuing	Continuing
Travel	Various	Various:Various	1.556	0.155	Oct 2011	0.125	Oct 2012	0.102	Oct 2013	-		0.102	Continuing	Continuing	Continuing
Prior Year Mgmt no longer funded in the FYDP	Various	Various:Various	4.674	0.000		0.000		0.000		-		0.000	0.000	4.674	
		Subtotal	11.307	0.462		0.411		0.388		0.000		0.388			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	41.477	3.247		2.455		2.668		0.000		2.668			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 1109: *CH/MH-53*



2014OSD - 0604212N - 1109

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604212N: *Other Helicopter Development*	**PROJECT** 1109: *CH/MH-53*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
CH/MH-53				
Engineering Milestones: - Obsolescence Issues/Studies	1	2012	4	2018
Engineering Milestones: - Survivability Analysis	1	2012	4	2018
Engineering Milestones: - Legacy P3I Efforts	1	2012	4	2018
Engineering Milestones: - Safety Upgrades	1	2012	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2415: *H-60 Development*	664.860	29.502	29.743	33.773	-	33.773	25.158	0.000	0.000	0.000	0.000	783.036
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Helicopter Combat Support mission is to maintain forward deployed fleet sustainability through rapid airborne delivery of materials and personnel and to support amphibious operations through search and rescue coverage. The primary roles of the aircraft are to conduct vertical replenishment, day/night ship-to-ship, ship-to-shore, and shore-to-ship external transfer of cargo; internal transport of passengers, mail and cargo, vertical on board delivery; airhead operations, and day/night search and rescue. Armed Helo and Airborne Mine Countermeasures (AMCM) were added as primary mission areas for the MH-60S, being completed as block upgrades to the platform. The MH-60S Operational Requirements Document (ORD) was modified in May 2000 to add AMCM as a primary mission for the MH-60S. ORD Change II was validated and approved by the Joint Requirements Oversight Council on 15 February 2008 updating key performance parameters. AMCM provides an organic capability for the Littoral Combat Ship Mine Countermeasures Mission Package. Armed Helo provides Combat Search and Rescue, Surface Warfare and Maritime Interdiction Operations capability with Link 16 and Forward Firing Weapons (FFW) which includes rockets and anti-swarm weapons to address the Fast Attack Craft/Fast Inshore Attack Craft Threat. Aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations, and SEAL team and Explosive Ordnance Disposal support.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: MH-60S Airframe Development and Integration	5.706	5.500	7.500
Articles:	0	0	0
Description: The effort includes design, development, integration, correction of deficiencies and support of the AMCM unique items into the MH-60S airframe. Test and Evaluation on AMCM Mission Kits for the sensor/weapon systems as integrated on the MH-60S. AMCM training development to include situational analysis and Instructional System Development documentation. Conduct trade studies and analysis, develop and qualify components in order to replace obsolete system components on the MH-60S. Analyze, design, integrate, test, and support FFW/Rockets.			
FY 2012 Accomplishments: Continue AMCM sensor/weapon system integration and testing. Initiate AMCM Spiral Upgrade efforts. Continue FFW 20mm Gun System testing and reporting.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue AMCM sensor/weapon system testing. Continue AMCM Spiral Upgrade efforts. Analyze, design, integrate, and support follow-on FFW/Rockets capability to include training development. Complete FFW 20mm Gun System testing and reporting. ***FY 2014 Plans:*** Complete Airborne Mine Countermeasures (AMCM) sensor/weapon system testing. Continue AMCM Spiral Upgrade efforts. Analyze, design, integrate, and support follow-on Forward Firing Weapons (FFW)/Rockets capability to include training development of complete FFW capability.			
Title: MH-60S Avionics Development and Integration	5.778	9.000	13.050
Articles:	0	0	0
Description: Developmental efforts on the avionics architecture and systems of the MH-60S helicopter. Development of the operator consoles, as well as software modifications/improvements, to support AMCM systems. AMCM training development to include situational analysis, and Instructional System Development documentation for various sensors. Link 16 software development/upgrades and test for AMCM messages. Software development/improvements to support FFW/Rockets integration. ***FY 2012 Accomplishments:*** Continue AMCM Block 2B sensor/weapon system testing. Support AMCM Spiral Upgrade efforts. ***FY 2013 Plans:*** Continue AMCM test efforts/AMCM Spiral Upgrades; Support FFW/Rockets integration. ***FY 2014 Plans:*** Complete AMCM test efforts/AMCM Spiral Upgrades; Support FFW/Rockets integration. The increase in FY14 is associated with the efforts required to support the FFW/Rockets integration which include avionics hardware and associated software improvements to enhance FFW/Rockets effectiveness.			
Title: MH-60S Test, Engineering, Logistics, Management Support	18.018	15.243	13.223
Articles:	0	0	0
Description: Navy field activity systems engineering, logistics support, management and travel for the AMCM MH-60S Weapons System Integration Team for airframe and avionics, and FFW integration. Support/conduct MH-60S aircraft integration testing for AMCM sensor/weapon systems and FFW. ***FY 2012 Accomplishments:*** Continue support of test and integration of AMCM 2B sensor/weapon system and complete FFW 20mm Gun integration. ***FY 2013 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue AMCM test and integration of AMCM 2B sensor/weapon system, support AMCM Spiral Upgrades, follow-on FFW/ rockets integration testing and complete 20mm Gun reporting. ***FY 2014 Plans:*** Support Airborne Mine Countermeasures (AMCM) test and integration of AMCM 2B sensor/weapon system, support AMCM Spiral Upgrades, follow-on Forward Firing Weapons (FFW) Rockets Integration/testing.			
Accomplishments/Planned Programs Subtotals	29.502	29.743	33.773

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN1/017900: *MH-60S*	462.900	454.069	421.109		421.109	246.072	28.586	0.000	0.000	0.000	6,920.589
• APN6/060510: *MH-60S SPARES*	8.625	2.824	0.454		0.454	0.340	0.000	0.000	0.000	0.000	176.165
• APN5/053000: *H-60 MODS*	37.955	18.946	43.404		43.404	54.208	46.220	39.985	41.158	38.878	438.567

Remarks

D. Acquisition Strategy

AMCM and Armed Helo are elements of the existing MH-60S ACAT IC Program. MH-60S will employ an evolutionary acquisition approach via the MH-60S Block Upgrades. This allows for future modification for systems still in early development. The block upgrades will maximize commonality across all MH-60S missions and all AMCM/Armed Helo weapon systems, including logistics, training and maintenance. The MH-60S block upgrades are as follows:
-Block 1 - Combat Support Helicopter
-Block 2 - Organic Airborne Mine Countermeasures
-Block 3 - Armed Helo

E. Performance Metrics

Successfully achieve Initial Operational Capability for AMCM. Successfully complete Operational Assessment for AMCM sensor integration and Littoral Combat Ship (LCS) Mine Countermeasures Mission Package. Successfully complete FFW/ Rockets Developmental/Operational Testing.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Dev - Airframe*	SS/CPIF	Sikorsky:Stratford, CT	167.244	2.856	Jan 2012	1.000	Mar 2013	2.000	Dec 2013	-		2.000	0.000	173.100	173.100
Primary Hdw Dev - Airframe FFW	SS/CPFF	Sikorsky:Stratford, CT	9.637	0.000		3.500	Nov 2012	4.500	Nov 2013	-		4.500	3.000	20.637	20.637
Primary Hdw Dev - Avionics*	SS/CPIF	Lockheed Martin:Owego, NY	210.329	5.778	Oct 2011	6.000	Dec 2012	1.500	Dec 2013	-		1.500	0.000	223.607	223.607
Primary Hdw Dev - Avionics*FFW	SS/CPIF	Lockheed Martin:Owego, NY	0.000	0.000		2.000	Nov 2012	2.300	Nov 2013	-		2.300	3.000	7.300	7.300
Primary Hdw Dev - Avionics*FFW	TBD	CRANE:TBD	0.000	0.000		1.000	Apr 2013	6.000	Jan 2014	-		6.000	1.400	8.400	
Primary Hdw Dev - Avionics*FFW	TBD	Raytheon:TBD	0.000	0.000		0.000		2.000	Mar 2014	-		2.000	3.500	5.500	5.500
Primary Hdw Dev - CSTRS	WR	NSWC:Panama City, FL	20.630	1.800	Feb 2012	0.500	Dec 2012	0.500	Dec 2013	-		0.500	0.000	23.430	
Primary Hdw Dev - CSTRS	MIPR	CECOM:APG, MD	11.979	1.050	Dec 2011	0.500	Dec 2012	0.500	Dec 2013	-		0.500	0.000	14.029	
Primary Hdw Dev - Training	TBD	TBD:TBD	0.000	0.000		0.000		1.250	Feb 2014	-		1.250	1.150	2.400	
Prior year Product Dev cost no longer funded in the FYDP	Various	Various:Various	51.554	0.000		0.000		0.000		-		0.000	0.000	51.554	
		Subtotal	471.373	11.484		14.500		20.550		0.000		20.550	12.050	529.957	

Remarks

Remarks: * PY SS/CPAF - 2%
FY05-FY12 SS/CPIF
FY12-FY14 Primary Hdw Dev- Avionics - Lockheed Martin includes Progress Payments aligned to Fixed Price CLIN only.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ILS - MSS (Non FFRDC)	Various	Various:Various	2.669	0.244	Dec 2011	0.244	Dec 2012	0.175	Dec 2013	-		0.175	0.284	3.616	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	Various:Various	5.560	0.899	Nov 2011	1.000	Nov 2012	0.650	Dec 2013	-		0.650	2.000	10.109	
Prior year Support cost no longer funded in the FYDP	Various	Various:Various	8.589	0.000		0.000		0.000		-		0.000	0.000	8.589	
		Subtotal	16.818	1.143		1.244		0.825		0.000		0.825	2.284	22.314	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Evaluation	WR	NAWCAD:Patuxent River, MD	39.871	5.176	Nov 2011	3.000	Nov 2012	2.754	Nov 2013	-		2.754	2.257	53.058	
Dev Test & Evaluation	WR	Various:Various	19.179	4.279	Nov 2011	2.179	Nov 2012	0.913	Nov 2013	-		0.913	0.000	26.550	
Operational Test & Evaluation	WR	OPTEVFOR:Norfolk, VA	4.535	0.971	Feb 2012	1.000	Nov 2012	2.100	Nov 2013	-		2.100	2.000	10.606	
Prior year T&E cost no longer funded in the FYDP	Various	Various:Various	6.159	0.000		0.000		0.000		-		0.000	0.000	6.159	
		Subtotal	69.744	10.426		6.179		5.767		0.000		5.767	4.257	96.373	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Eng & Tech Srvc (Non FFRDC)	Various	Various:Various	16.465	1.606	Jan 2012	2.142	Jan 2013	2.300	Jan 2014	-		2.300	1.741	24.254	
Government Engineering Support	WR	NAWCAD:Patuxent River, MD	12.020	1.750	Nov 2011	2.804	Nov 2012	1.538	Nov 2013	-		1.538	1.689	19.801	
Government Engineering Support	WR	NSWC:Panama City, FL	30.346	1.489	Nov 2011	1.615	Nov 2012	0.750	Nov 2013	-		0.750	0.686	34.886	
Government Engineering Support	WR	Various:Various	25.123	0.537	Dec 2011	0.400	Dec 2012	1.373	Dec 2013	-		1.373	1.750	29.183	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*

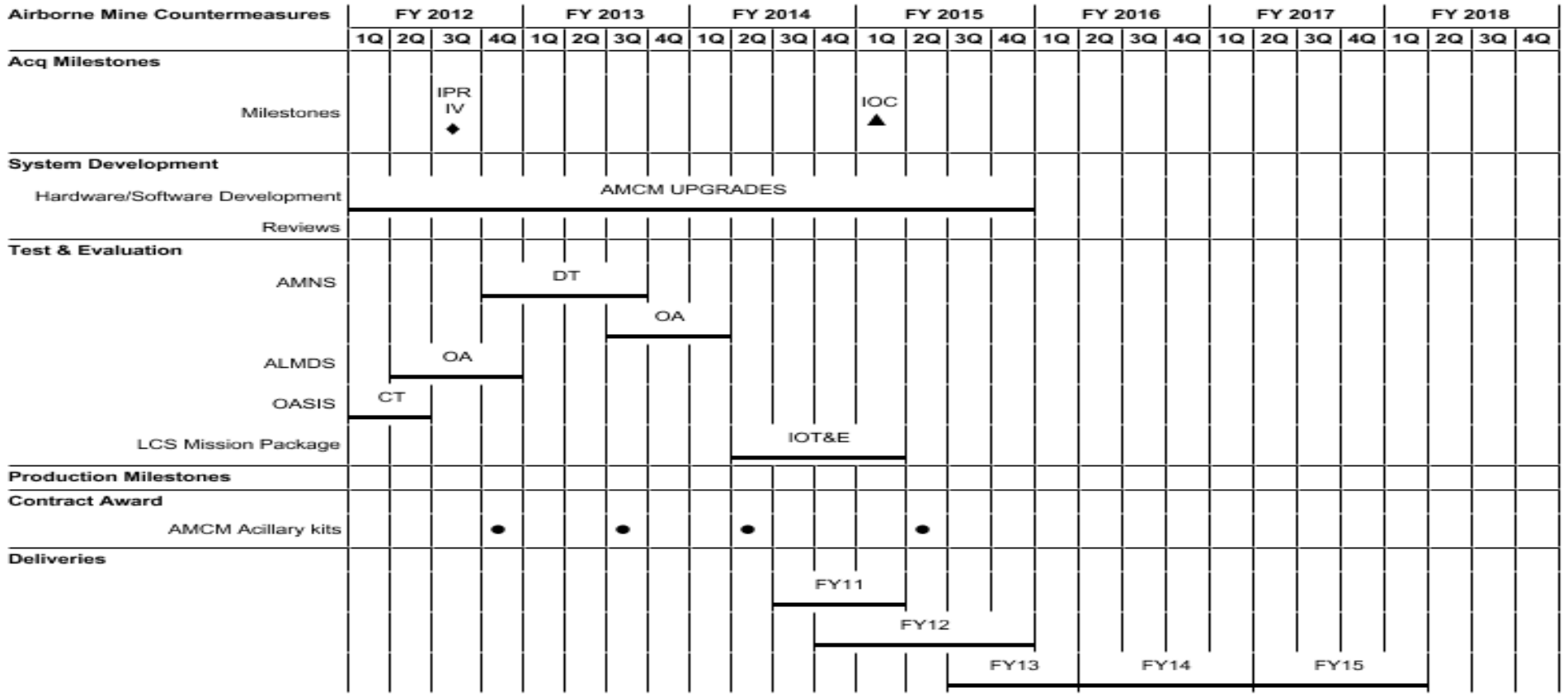
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Mgmt Support CSS	WR	Various:Various	5.380	0.177	Jan 2012	0.177	Jan 2013	0.180	Jan 2014	-		0.180	0.180	6.094	
Program Mgmt Support	WR	Various:Various	13.681	0.690	Nov 2011	0.482	Nov 2012	0.290	Nov 2013	-		0.290	0.321	15.464	
Travel	WR	Various:Various	2.926	0.200	Nov 2011	0.200	Nov 2012	0.200	Nov 2013	-		0.200	0.200	3.726	
Prior year Mgmt cost no longer funded in the FYDP	Various	Various:Various	0.984	0.000		0.000		0.000		-		0.000	0.000	0.984	
		Subtotal	106.925	6.449		7.820		6.631		0.000		6.631	6.567	134.392	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	664.860	29.502		29.743		33.773		0.000		33.773	25.158	783.036	

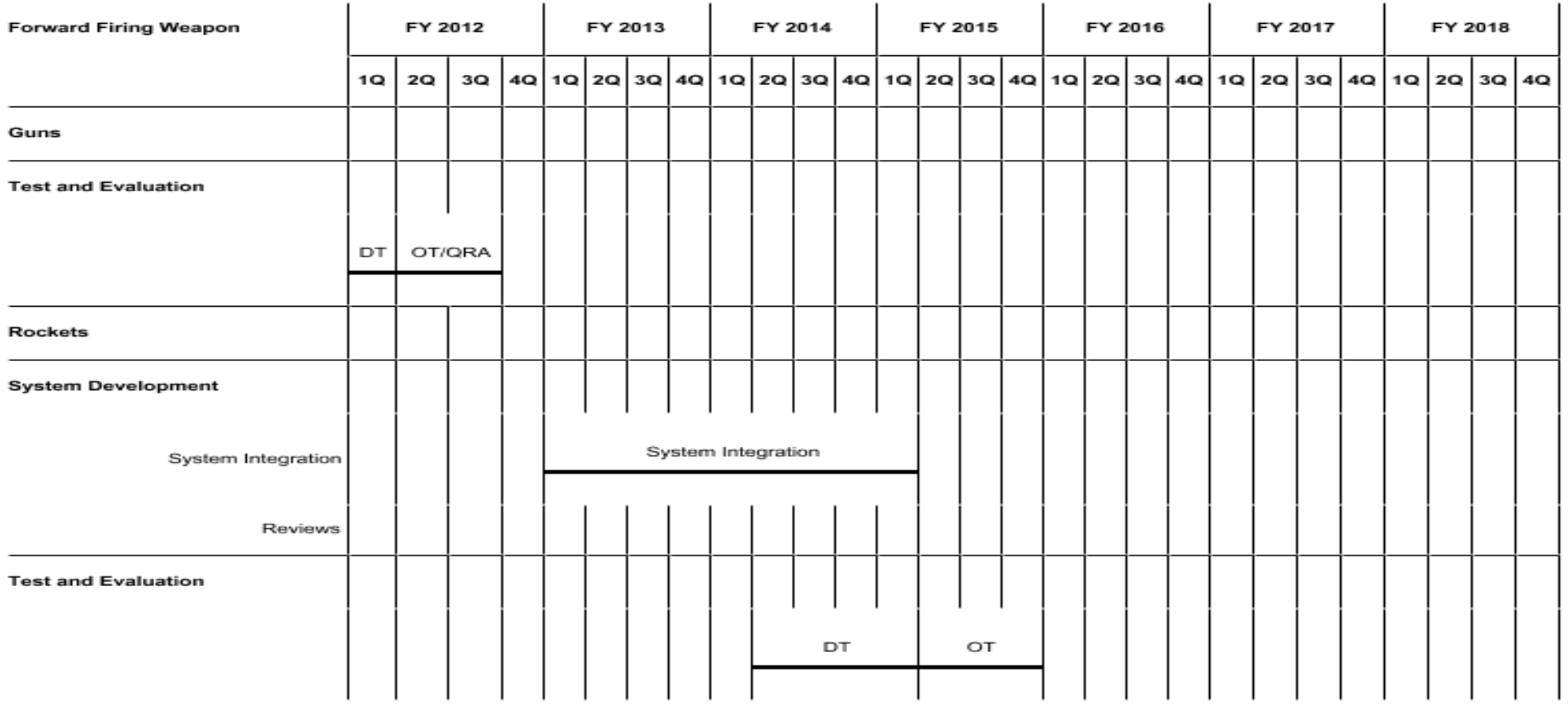
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*



2014PB - 0604212N - 2415

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*



2014PB - 0604212N - 2415

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Airborne Mine Countermeasures				
Acq Milestones: Milestones: - Initial Operational Capability-AMCM	1	2015	1	2015
Acq Milestones: Milestones: - IPR IV AMCM	3	2012	3	2012
System Development: Hardware/Software Development: - AMCM Spiral Upgrades	1	2012	4	2015
Test & Evaluation: AMNS: - Developmental Testing (DT) (AMNS)	4	2012	3	2013
Test & Evaluation: AMNS: - Operational Assessment (OA) (AMNS)	3	2013	1	2014
Test & Evaluation: ALMDS: - Operational Assessment (OA) (ALMDS)	2	2012	4	2012
Test & Evaluation: OASIS: - Contractor Test (OASIS)	1	2012	2	2012
Test & Evaluation: LCS Mission Package: Initial Operational Test and Evaluation (IOT&E)	2	2014	1	2015
Contract Award: AMCM Acillary kits: - Contract Award - Production (AMCM Ancillary Kits-FY12)	4	2012	4	2012
Contract Award: AMCM Acillary kits: - Contract Award - Production (AMCM Ancillary Kits-FY13)	3	2013	3	2013
Contract Award: AMCM Acillary kits: - Contract Award - Produciton (AMCM Ancillary Kits-FY14)	2	2014	2	2014
Contract Award: AMCM Acillary kits: - Contract Award - Produciton (AMCM Ancillary Kits-FY15)	2	2015	2	2015
Deliveries: - LRIP Delivery (AMCM Ancillary Kits-FY11)	3	2014	1	2015
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY12)	4	2014	4	2015
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY13)	3	2015	1	2016
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY14)	2	2016	1	2017
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY15)	2	2017	1	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2415: *H-60 Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Forward Firing Weapon				
Test and Evaluation: - Developmental Testing (DT) (FFW)	1	2012	1	2012
Test and Evaluation: - Operational Testing (OT)/QRA (FFW)	2	2012	3	2012
System Development: System Integration: System Integration	1	2013	1	2015
Test and Evaluation: Developmental Testing (DT) (FFW)	2	2014	1	2015
Test and Evaluation: Operational Testing (OT) (FFW)	2	2015	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2460: *VH-3/VH-60*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2460: *VH-3/VH-60*	26.009	1.724	1.780	2.230	-	2.230	11.719	1.742	1.779	1.799	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Marine Helicopter Squadron One (HMX-1) is required to provide safe and timely transportation for the President and Vice President of the United States, heads of state and others as directed by the White House Military Office. Currently two Type, Model, Series aircraft are used by HMX-1 for the Presidential support mission - the VH-3D and the VH-60N. This project currently funds the VH Executive Helicopter's Aircraft Life Management Plan.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: VH Executive Helicopter Aircraft Life Management Plan	1.724	1.780	2.230
Articles:	0	0	0
Description: VH Executive Helicopter Aircraft Life Management Program: Provides for management and improvement of all Executive Helicopter systems readiness including safety, operational weight, mission availability, structural integrity, component reliability, maintainability, software, and obsolescence issues as they arise.			
FY 2012 Accomplishments: Provides government support and contract award for efforts associated with the Aircraft Life Management Program for the VH-3D and VH-60N.			
FY 2013 Plans: Provides government support and contract award for efforts associated with the Aircraft Life Management Program for the VH Executive Helicopters.			
FY 2014 Plans: Provide government support and contract awards for efforts associated with the Aircraft Life Management Program for VH Executive Helicopters. Evaluation of a wideband Line Of Site system for prototype and test for integration into the VH Communications Suite.			
Accomplishments/Planned Programs Subtotals	1.724	1.780	2.230

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2460: *VH-3/VH-60*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/056600: *Executive Helicopters Series*	77.511	58.163	85.537		85.537	107.661	128.433	88.218	67.316	95.834	1,154.550

Remarks

D. Acquisition Strategy

VH Executive Helicopter Aircraft Life Management Plan will include trade studies necessary to address safety, operational weight, mission availability, structural integrity, component reliability, maintainability, software, and obsolescence issues as they arise. Results of these trade studies will lead to modifications to be addressed through the program's Obsolescence Management Program Operational Safety and Improvement Program.

E. Performance Metrics

Completion of VH Executive Helicopter Aircraft Life Management Program efforts.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2460: *VH-3/VH-60*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	SS/CPFF	Sikorsky:Stratford, CT	15.111	0.899	Feb 2012	0.000		0.000		-		0.000	7.206	23.216	23.216
Systems Engineering	SS/FFP	Rockwell Collins:Cedar Rapids, IA	0.000	0.439	May 2012	0.000		0.000		-		0.000	0.000	0.439	0.439
Prior Year Prod Dev no longer funded in the FYDP	Various	Various:Various	5.426	0.000		0.000		0.000		-		0.000	0.000	5.426	
		Subtotal	20.537	1.338		0.000		0.000		0.000		0.000	7.206	29.081	

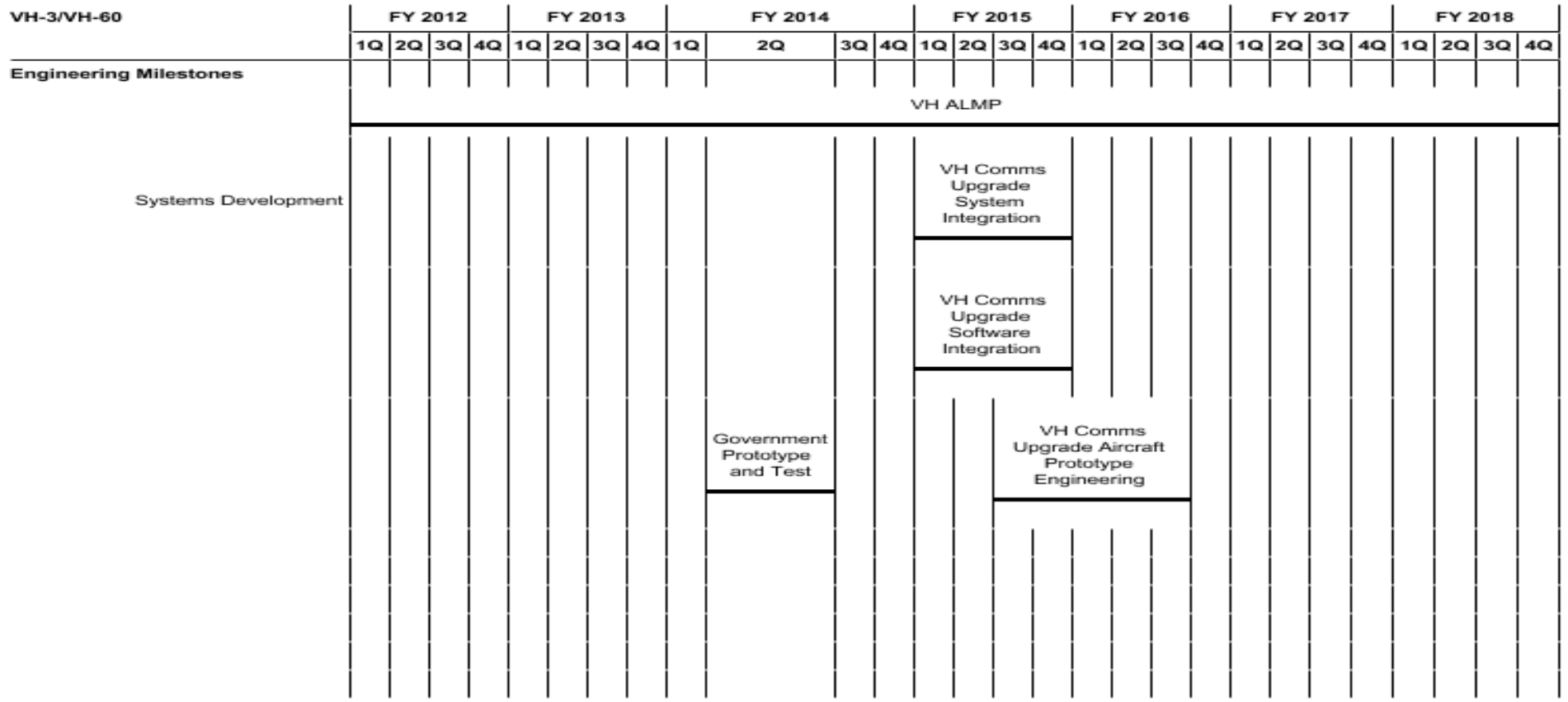
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD:Patuxent River, MD	4.564	0.286	Nov 2011	1.353	Nov 2012	1.548	Nov 2013	-		1.548	Continuing	Continuing	Continuing
Program Management Support	WR	NAWCAD:Patuxent River, MD	0.764	0.050	Nov 2011	0.399	Nov 2012	0.661	Nov 2013	-		0.661	Continuing	Continuing	Continuing
Travel	Various	Various:Various	0.144	0.050	Oct 2011	0.028	Oct 2012	0.021	Oct 2013	-		0.021	Continuing	Continuing	Continuing
		Subtotal	5.472	0.386		1.780		2.230		0.000		2.230			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	26.009	1.724		1.780		2.230		0.000		2.230			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 2460: *VH-3/VH-60*



2014PB - 0604212N - 2460

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604212N: *Other Helicopter Development*	**PROJECT** 2460: *VH-3/VH-60*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
VH-3/VH-60				
Engineering Milestones: VH-3D / VH-60N ALMP	1	2012	4	2018
Engineering Milestones: Systems Development: VH Comms Upgrade System Integration	1	2015	4	2015
Engineering Milestones: Systems Development: VH Comms Upgrade Software Integration	1	2015	4	2015
Engineering Milestones: Systems Development: VH Comms Upgrade Aircraft Prototype Engineering	3	2015	3	2016
Engineering Milestones: Systems Development: Government Prototype and Test	2	2014	2	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 3355: *MH-XX Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3355: *MH-XX Development*	0.000	0.000	0.000	1.887	-	1.887	6.568	6.033	2.142	2.167	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

New Start

A. Mission Description and Budget Item Justification

The MH-XX project supports Naval Aviation developmental activities to support the replacement of Navy H-60 series helicopters. These aircraft will be used extensively to protect the surface Navy from both surface and sub-surface threats. Additionally, other mission areas will include Combat Search and Rescue, Naval Special Warfare support and Logistics support. Systems engineering activities will be conducted to evolutionize operational requirements into design requirements. Efforts include: requirements synthesis/analysis to properly identify capability gaps, design trades and affordability studies. This will allow system level optimization to provide the maximum war fighting capability at the lowest possible costs. This will provide Naval Aviation the means to maintain war fighting capability effectively and efficiently and support the Navy's 30 year plan.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: MH-XX Development Engineering Support	0.000	0.000	1.887
Articles:			0
Description: Provide systems engineering support for the Naval Aviation developmental activities to provide for replacement of the Navy H-60 series Helicopter with the MH-XX.			
FY 2014 Plans: Provide Systems engineering support for MH-XX Development Program.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	1.887

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Activities will be predominantly government. The results of these activities will establish the acquisition strategy for the remainder of the program.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 3355: *MH-XX Development*

E. Performance Metrics

Completion of Systems Design Specification and Milestone Documentation.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 3355: *MH-XX Development*

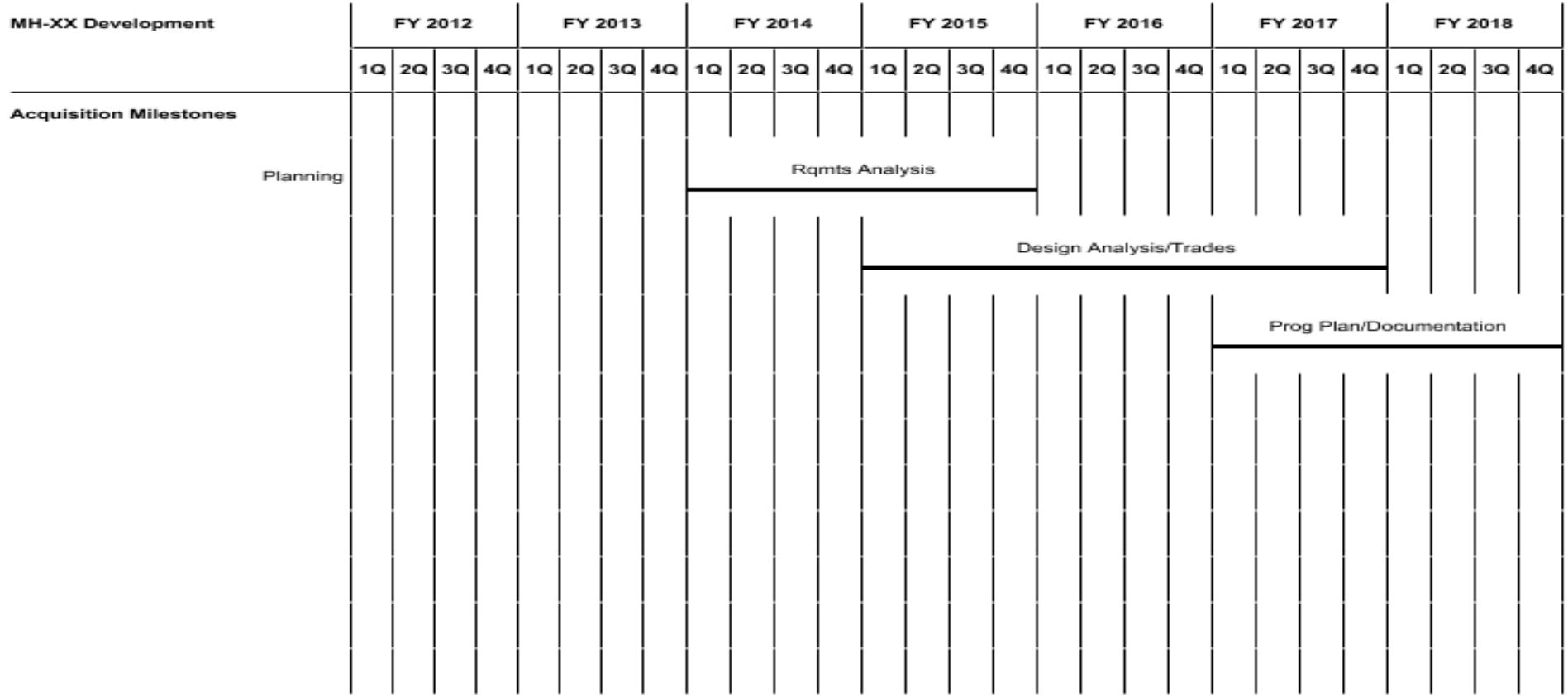
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Govt Engineering/Log Supt	WR	NAWC AD:Patuxent River MD	0.000	0.000		0.000		0.599	Oct 2013	-		0.599	Continuing	Continuing	Continuing
Contr Engineering Supt	TBD	NAWC AD:Patuxent River MD	0.000	0.000		0.000		1.061	Nov 2013	-		1.061	Continuing	Continuing	Continuing
Program Management	WR	NAWC AD:Patuxent River MD	0.000	0.000		0.000		0.198	Nov 2013	-		0.198	Continuing	Continuing	Continuing
Travel	Various	Various:Not Specified	0.000	0.000		0.000		0.029	Oct 2013	-		0.029	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		1.887		0.000		1.887			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		1.887		0.000		1.887			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 3355: *MH-XX Development*



2014OSD - 0604212N - 3355

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604212N: *Other Helicopter Development*	**PROJECT** 3355: *MH-XX Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MH-XX Development				
Acquisition Milestones: Planning: Requirements Analysis	1	2014	4	2015
Acquisition Milestones: Planning: Design Analysis/Trade Studies	1	2015	4	2017
Acquisition Milestones: Planning: Program Planning/Documentation	1	2017	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	7.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	7.000
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Congressional Add

B. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013
Congressional Add: VH-3/VH-60 (Cong)	7.000	-
FY 2012 Accomplishments: N/A		
Congressional Adds Subtotals	7.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/056600: *Executive Helicopters Series*	77.511	58.163	85.537		85.537	107.661	128.433	88.218	67.316	95.834	1,154.550

Remarks

D. Acquisition Strategy

Not required for Congressional Adds.

E. Performance Metrics

Not required for Congressional Adds.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604212N: *Other Helicopter Development*	PROJECT 9999: *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	C/CPFF	Sikorsky:Stratford, CT	0.000	4.430	Dec 2012	0.000		0.000		-		0.000	0.000	4.430	
Systems Engineering	C/FFP	Rockwell Collins:Cedar Rapids, IA	0.000	1.460	Jun 2012	0.000		0.000		-		0.000	0.000	1.460	
		Subtotal	0.000	5.890		0.000		0.000		0.000		0.000	0.000	5.890	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD:Patuxent River, MD	0.000	1.110	Nov 2011	0.000		0.000		-		0.000	0.000	1.110	
		Subtotal	0.000	1.110		0.000		0.000		0.000		0.000	0.000	1.110	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	7.000		0.000		0.000		0.000		0.000	0.000	7.000	

Remarks

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	265.699	22.810	32.789	35.825	-	35.825	15.000	18.691	19.248	19.576	Continuing	Continuing
0652: *AV-8B*	265.699	22.810	32.789	35.825	-	35.825	15.000	18.691	19.248	19.576	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The program provides for AV-8B Design, Development, Integration and Test of various platform improvements such as: Engine Life Management Program (ELMP), Escape Systems, Joint Mission Planning System (JMPS), and Block upgrades to various mission systems, communications systems, navigation equipment, weapons carriage and countermeasures, and the Obsolescence Replacement (OR)/Readiness Management Plan (RMP). The JMPS is required as part of the DON directed migration to a common Navy and Marine Corps mission planning system. OR/RMP represents all engineering activities for development and design to support aircraft safety flight clearances, concept explorations, and developments to support POM objectives. The program's Evolutionary Acquisition Strategy includes Design, Development, Integration and Test activities under the consolidated effort of Block Developments: H6.1 and follow-on block upgrades. The H6.1/H6.1.1 update will provide enhancements and software corrections that improve the AV-8B platform combat effectiveness, survivability, and relevance through avionics processor upgrades, mission planning updates, and Litening Operational Flight Program. A H6.2 update, accomplished by the Common Avionics Program, provides AV-8B a self-contained GPS navigation capability that is required to access preferred airspaces. AV-8B funding supports peculiar flight test requirements. The ELMP is a comprehensive plan to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine and accessories. PMA-257 will accomplish this mission by conducting Engineering Project Description investigations and performing a series of planned Endurance Tests to derive engineering improvements to the engine. The OR/RMP is required to ensure the AV-8B air vehicle's sustained mission availability, and safe and reliable operational readiness until end of service. Air vehicle sustainment requires component and system analyses, technical planning, identification and diagnosis of problems and the development, testing and flight clearance of engineering solutions in the areas of flight, crew safety, and escape systems and structural integrity, obsolescence, systems reliability and maintainability, inventory preservation, alternative mission development, or other emergent material or equipment conditions affecting AV-8B systems readiness. Activities include research/ analysis for system safety deficiency corrections, fuel system safety improvements, structural analyses, monitoring and integrity analysis, component obsolescence analyses including development of display computer and other computer/processor alternatives, explorations for aging equipment, reliability improvement analyses and design developments. FY14 continues development efforts and associated obsolescence and readiness requirements for ELMP, RMP and Operational Flight Program updates.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	30.676	32.789	35.932	-	35.932
Current President's Budget	22.810	32.789	35.825	-	35.825
Total Adjustments	-7.866	0.000	-0.107	-	-0.107
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-7.181	0.000			
• SBIR/STTR Transfer	-0.685	0.000			
• Program Adjustments	0.000	0.000	-0.076	-	-0.076
• Rate/Misc Adjustments	0.000	0.000	-0.031	-	-0.031

Change Summary Explanation

Technical: H6.2 update is accomplished by the Common Avionics Program.

Schedule:
Acquisition Milestones for H6.1/H6.1.1 DT/IT, H6.1/H6.1.1 software delivery, and H6.1/H6.1.1 IOC changed due to delay in software development.
Acquisition Milestones for H6.2 DT/IT, H6.2 software delivery were added since PB13.
Airborne Variable Message Format Terminal Initial Operating Capability deleted due to removal of FY14 APN5 OCO for PB14 controls.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0652: *AV-8B*	265.699	22.810	32.789	35.825	-	35.825	15.000	18.691	19.248	19.576	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program provides for AV-8B Design, Development, Integration and Test of the following improvements: The Engine Life Management Program (ELMP), Escape System and Readiness Management Plan (RMP). The ELMP is a comprehensive plan to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine and Gas Turbine Starter, as well as other critical engine components. The Program Office will accomplish this mission through the Component Improvement Program, which entails Engineering Project Description investigations and a series of planned Endurance Tests to derive safety and reliability improvements to the engine and engine components. The Joint Mission Planning System is required as part of the DON directed migration to a common Navy and Marine Corps mission planning system. H6.1 provides enhancements and software corrections, and H6.2 (Common Avionics Program) provides GPS navigation capabilities. Other specific efforts include Airborne Variable Message Format Terminal, Flight Control Computer. The program is working closely with the Common Avionics program and the Allies (Spain and Italy) on all efforts. RMP represents all engineering activities for development and design to support aircraft safety, flight clearance and concept exploration for resolution of emergent safety, service life, escape systems, obsolescence, and readiness issues.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Development of RMP Engineering Change Proposals	7.417	22.779	27.341
Articles:	0	0	0

Description: Improve safety, structural integrity, and systems reliability of the AV-8B aircraft, development obsolescence solutions and develop an improved Flight Control Computer (FCC).

FY 2012 Accomplishments:

Radar display computer development and testing accomplished. Additionally, the program conducted studies concerning improvements and correction of deficiencies and issues including obsolescence and structural fatigue as well as conducting component obsolescence analyses including alternatives explorations and development for obsolete aging equipment, to include aircrew and environmental systems, flight controls and other safety deficiency corrections.

FY 2013 Plans:

Development efforts begin for the obsolescence replacement for the FCC. Efforts are initiated for the Rate Gyro replacement and Fatigue Tracking Users Program. Funds support emergent and ongoing efforts for system analyses, identification, and diagnosis of problems and the development and testing of engineering solutions in the areas of flight and crew safety, structural

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
integrity, obsolescence, and systems reliability, and other material and equipment conditions affecting AV-8B systems readiness. Additionally, the program will conduct studies concerning improvements and correction of deficiencies and issues including obsolescence and structural fatigue as well as conducting component obsolescence analyses including alternatives explorations and development for obsolete aging equipment, to include aircrew and environmental systems, flight controls and other safety deficiency corrections. Other efforts include the continuation of development and testing of Radar Display Computer. ***FY 2014 Plans:*** Extensions to AV-8B End of Service date require extensive obsolescence mitigation efforts to preclude aircraft on ground. The program begun in PB-13 will continue to address known, predicted, and emergent obsolescence equipment issues. Systems engineering will support ongoing and emergent analysis and design / development efforts required to identify ECP requirements to correct systems safety, structural integrity, and readiness issues.			
Title: F402-RR-408 Engine Safety and Reliability Enhancements ***Articles:*** ***Description:*** Improve Safety and Reliability of the F402-RR-408 Engine for the AV-8B Harrier. ***FY 2012 Accomplishments:*** Conducted research, analysis, and development of design changes and improvements to the engine and engine accessories. Continued the Component Improvement Program (CIP) to ensure safe, reliable performance of the F402-RR-408 and related components. Continue redesign and obsolescence mitigation efforts through redesign and procurement of Test Cell Facilities and Support Equipment. ***FY 2013 Plans:*** The CIP will conduct investigations to develop improvements and develop design solutions for correction of deficiencies and issues resulting from safety, obsolescence and structural fatigue for the engine and accessories. Continue EVICS and Gas Turbine Starter evaluation and improvements. Continue redesign and obsolescence mitigation efforts through redesign and procurement of Test Cell Facilities and Support Equipment. ***FY 2014 Plans:*** The CIP will conduct investigations to develop improvements and develop design solutions for correction of deficiencies and issues resulting from safety, obsolescence and structural fatigue for the engine and accessories.	6.973 0	7.320 0	6.916 0
Title: Operational Flight Program (OFP) and Avionics Weapons Systems Development and Integration ***Articles:*** ***Description:*** Develop Airborne Variable Message Format Terminal, formerly Strikelink/A, Aircraft OFP updates, mission planning updates, Litening Pod software updates, and support aircraft avionics development efforts.	8.420 0	2.690 0	1.568 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Completion of Airborne Variable Message Format Terminal development and testing, future capability expansion studies and analyses, and aircraft Operational Flight Program (OFP)/Litening Pod software updates and developmental test as part of the H6.1 block upgrade. ***FY 2013 Plans:*** Funds will provide for future capability expansion studies and analyses, peculiar flight test requirements, and aircraft OFP/Litening Pod software updates and developmental test as part of the H6.1 block upgrade. ***FY 2014 Plans:*** Funds will provide for future capability expansion studies and analyses, peculiar flight test requirements, and aircraft OFP/Litening Pod software updates and developmental test as part of the H6.1/H6.1.1 and H6.2 block upgrades.			
Accomplishments/Planned Programs Subtotals	22.810	32.789	35.825

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0514: *AV-8B Series Modification*	98.233	80.941	41.575		41.575	50.654	26.218	20.621	36.897	Continuing	Continuing

Remarks

D. Acquisition Strategy

All efforts under Aircraft Handling/Readiness Management Program provide investigations and analysis of testing and flight clearance authorization necessary to assess overall system capability and integration of projects. Funding for the Engine Life Management Program will be placed on a cost-type contract to Rolls Royce to address safety of flight issues, top readiness degraders, engine removal and mission failure drivers in order to improve Fleet readiness and reduce cost of ownership. It is also developed to assess life management program issues and design fixes for any service revealed deficiencies. The program's Evolutionary Acquisition Strategy includes Design, Development, Integration and Test activity under the consolidated effort of Block Developments: H2.0, H4.0, H5.0, H6.0, H6.1/H6.1.1, H6.2 (Common Avionics) and following systems. The development and integration of Joint Mission Planning System occurred concurrently with H2.0. H4.0 Block improvements included the Tactical Aircraft Moving Map Capability. H5.0 Block Upgrade provided Dual Mode Laser Guided Bomb, Litening Centerline/Station 4 (improvement of current weapons carriage capability). The program is working closely with the Allies (Spain and Italy) and the Common Avionics program on these efforts for H6.0 and H6.1. H6.0 provides weapons carriage expansion. The H6.1/H6.1.1 update will provide enhancements and software corrections that improve the AV-8B platform combat effectiveness, survivability, and relevance through avionics processor upgrades and Litening Common Operational Flight Program. The H6.2 update is being accomplished by the Common Avionics Program and provides a GPS Navigation capability for AV-8B.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*

E. Performance Metrics

Achieve Engine Life Management Program Rolls-Royce Component Improvement Program contract award and Goodrich contract award 1Q FY2014. Continue Flight Control Computer System Development in 2Q FY2014, and complete developmental test for Readiness Management Plan Display Computer.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/CPFF	Rolls-Royce PLC:Bristol, GB	22.918	2.186	Dec 2011	1.907	Jan 2013	1.618	Dec 2013	-		1.618	11.108	39.737	39.737
Primary Hardware Development	C/FFP	Goodrich PS:Pitstone, GB	4.450	0.722	Feb 2012	0.999	May 2013	0.900	Feb 2014	-		0.900	0.000	7.071	7.071
Primary Hardware Development	WR	NAWCWD:China Lake, CA	45.035	1.576	Dec 2011	0.634	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Primary Hardware Development	C/CPFF	GE Aviation DS:Grand Rapids, MI	16.839	0.000	Feb 2012	0.000		0.000		-		0.000	3.371	20.210	20.210
Primary Hardware Development	C/CPFF	Stauder:St. Peters, MO	11.099	1.500	Jan 2012	0.000		0.000		-		0.000	7.580	20.179	20.179
Primary Hardware Development	WR	NAWCAD:Patuxent River, MD	0.000	0.558	Nov 2011	0.100	Nov 2012	0.000		-		0.000	0.000	0.658	
Primary Hardware Development	C/CPFF	TBD (FCC):TBD	0.027	0.000		15.254	Sep 2013	21.317	Jan 2014	-		21.317	0.000	36.598	36.598
Primary Hardware Development	WR	Depot:Cherry Pt, NC	0.000	0.000		0.075	Nov 2012	0.000		-		0.000	0.000	0.075	
Systems Engineering	Various	McDonnell Douglas:St. Louis, MO	8.400	1.202	Dec 2011	2.335	Jun 2013	2.912	Dec 2013	-		2.912	0.177	15.026	15.026
Systems Engineering	Various	Various:Various	0.520	0.000		1.250	Jan 2013	1.313	Jan 2014	-		1.313	0.000	3.083	3.083
Systems Engineering	WR	NAWCWD:China Lake, CA	1.073	0.270	Dec 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWCAD:Patuxent River, MD	0.000	1.232	Nov 2011	1.729	Nov 2012	1.643	Nov 2013	-		1.643	0.000	4.604	
Prior year cost no longer funded in the FYDP	Various	Various:Various	12.274	0.000		0.000		0.000		-		0.000	0.000	12.274	
		Subtotal	122.635	9.246		24.283		29.703		0.000		29.703			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	WR	NAWCWD:China Lake, CA	10.889	2.670	Dec 2011	0.354	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Studies and Analysis	Various	Various:Various	2.542	0.136	Jun 2012	0.145	Jun 2013	0.000		-		0.000	3.900	6.723	6.723
Technical Data	C/CPFF	Various:Various	2.331	0.115	Nov 2011	0.000		0.000		-		0.000	0.320	2.766	2.766
Prior year cost no longer funded in the FYDP	Various	Various:Various	31.083	0.000		0.000		0.000		-		0.000	0.000	31.083	
		Subtotal	46.845	2.921		0.499		0.000		0.000		0.000			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	C/CPFF	McDonnell Douglas:St. Louis, MO	0.000	1.500	Jul 2012	0.000		0.000		-		0.000	5.689	7.189	7.189
Developmental Test & Evaluation	WR	NAWCWD:China Lake, CA	41.130	4.040	Jan 2012	2.624	Jan 2013	1.250	Jan 2014	-		1.250	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	COMOPTEVFOR:Norfolk, VA	22.923	0.206	Oct 2011	0.213	Jan 2013	0.000		-		0.000	0.000	23.342	
Prior year cost no longer funded in the FYDP	Various	Various:Various	3.796	0.000		0.000		0.000		-		0.000	0.000	3.796	
		Subtotal	67.849	5.746		2.837		1.250		0.000		1.250			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering & Tec SRVC (Non-FFRDC)	C/CPFF	Various:Various	2.924	0.524	Jan 2012	0.664	Jan 2013	0.615	Jan 2014	-		0.615	7.432	12.159	12.227
Government Engineering Support	WR	Various:Various	8.886	1.146	Nov 2011	1.089	Nov 2012	1.102	Nov 2013	-		1.102	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MGT & PROF SUPPT SRVC (NON-FFRDC)	C/CPFF	Various:Various	6.756	1.002	Nov 2011	1.070	Jan 2013	0.740	Nov 2013	-		0.740	12.542	22.110	22.192
Program Management Support	WR	Various:Various	8.884	2.096	Nov 2011	2.223	Nov 2012	2.312	Nov 2013	-		2.312	Continuing	Continuing	Continuing
Travel	WR	Various:Various	0.920	0.129	Oct 2011	0.124	Oct 2012	0.103	Oct 2013	-		0.103	Continuing	Continuing	Continuing
		Subtotal	28.370	4.897		5.170		4.872		0.000		4.872			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	265.699	22.810		32.789		35.825		0.000		35.825			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*

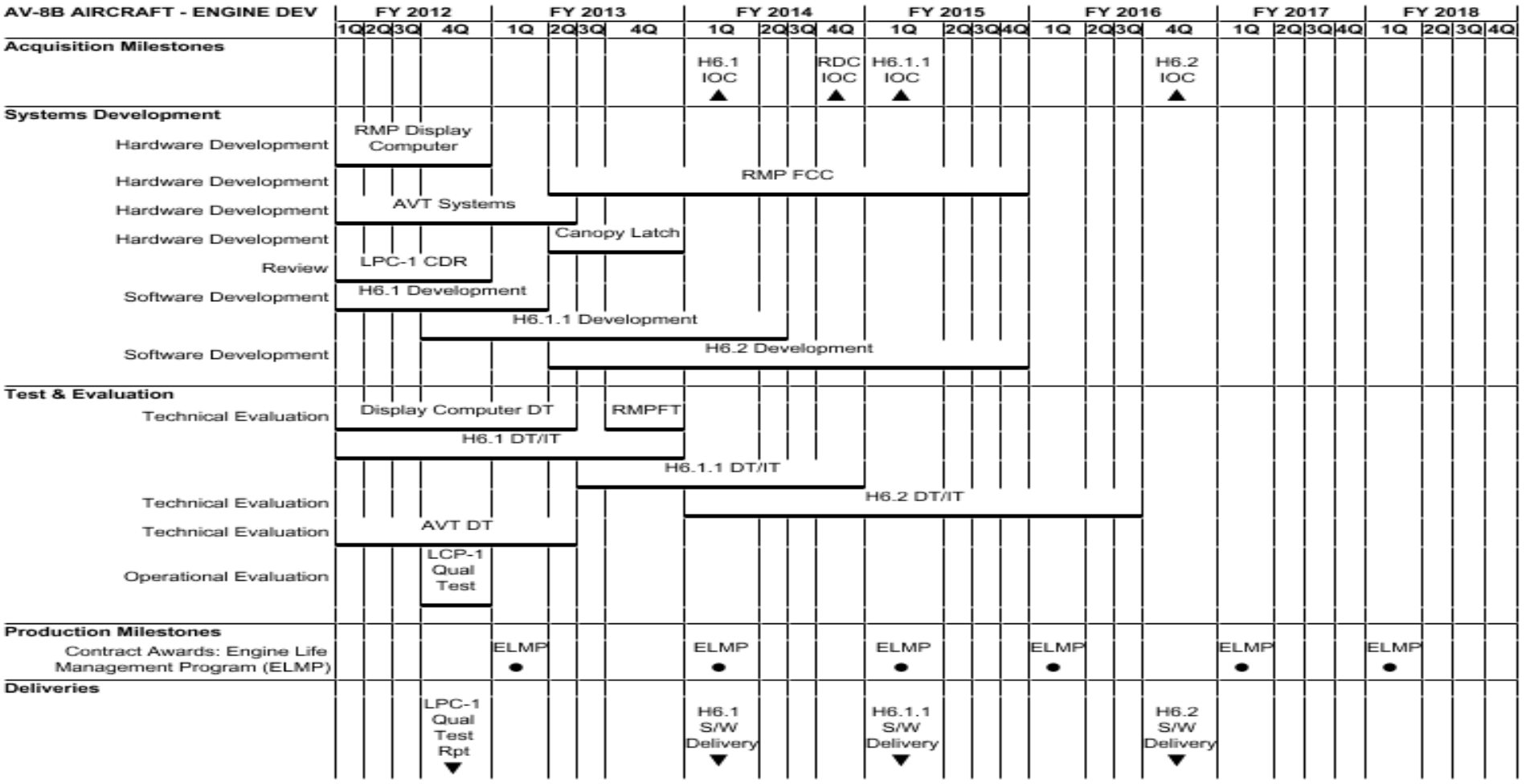


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*

2014PB - 0604214N - 0652

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*

Schedule Details

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
AV-8B AIRCRAFT - ENGINE DEV				
Acquisition Milestones: H6.1 IOC	1	2014	1	2014
Acquisition Milestones: RDC IOC	4	2014	4	2014
Acquisition Milestones: H6.1.1 IOC	1	2015	1	2015
Acquisition Milestones: H6.2 IOC	4	2016	4	2016
Systems Development: Hardware Development: RMP Display Computer System Development (program started in 2010)	1	2012	4	2012
Systems Development: Hardware Development: RMP Flight Control Computer System (FCC) Development	2	2013	4	2015
Systems Development: Hardware Development: AVT Systems Development	1	2012	2	2013
Systems Development: Hardware Development: Canopy Latch	2	2013	4	2013
Systems Development: Review: LPC-1 CDR	1	2012	4	2012
Systems Development: Software Development: H6.1 Development (program started in 2010)	1	2012	1	2013
Systems Development: Software Development: H6.1.1 Development	4	2012	2	2014
Systems Development: Software Development: H6.2 Development	2	2013	4	2015
Test & Evaluation: Technical Evaluation: Display Computer DT (program started in 2010)	1	2012	2	2013
Test & Evaluation: Technical Evaluation: RMPFT	4	2013	4	2013
Test & Evaluation: Technical Evaluation: H6.1 DT/IT	1	2012	4	2013
Test & Evaluation: Technical Evaluation: H6.1.1 DT/IT	3	2013	4	2014
Test & Evaluation: Technical Evaluation: H6.2 DT/IT	1	2014	3	2016
Test & Evaluation: Technical Evaluation: AVT DT	1	2012	2	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604214N: *AV-8B Aircraft - Engine Dev*	PROJECT 0652: *AV-8B*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test & Evaluation: Operational Evaluation: LCP-1 Qual Test	4	2012	4	2012
Production Milestones: Contract Awards: Engine Life Management Program (ELMP): ELMP Contract Award FY13	1	2013	1	2013
Production Milestones: Contract Awards: Engine Life Management Program (ELMP): ELMP Contract Award FY14	1	2014	1	2014
Production Milestones: Contract Awards: Engine Life Management Program (ELMP): ELMP Contract Award FY15	1	2015	1	2015
Production Milestones: Contract Awards: Engine Life Management Program (ELMP): ELMP Contract Award FY16	1	2016	1	2016
Production Milestones: Contract Awards: Engine Life Management Program (ELMP): ELMP Contract Award FY17	1	2017	1	2017
Production Milestones: Contract Awards: Engine Life Management Program (ELMP): ELMP Contract Award FY18	1	2018	1	2018
Deliveries: LPC-1 Qual Test Reports	4	2012	4	2012
Deliveries: H6.1 S/W Delivery	1	2014	1	2014
Deliveries: H6.1.1 S/W Delivery	1	2015	1	2015
Deliveries: H6.2 S/W Delivery	4	2016	4	2016

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	909.720	47.406	84.988	99.891	-	99.891	69.670	55.110	59.729	64.769	Continuing	Continuing
0572: *JT Service/NV Std Avionics CP/SB*	762.197	33.454	69.745	85.236	-	85.236	54.733	40.027	44.218	49.007	Continuing	Continuing
1857: *Calibration Standards*	7.698	1.338	1.856	1.835	-	1.835	1.909	1.939	1.985	2.011	Continuing	Continuing
2311: *Stores Planning and Weaponeering Module*	126.104	11.748	12.508	12.256	-	12.256	12.469	12.564	12.854	13.068	Continuing	Continuing
2312: *Common Helicopters*	13.721	0.866	0.879	0.564	-	0.564	0.559	0.580	0.672	0.683	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project provides for the identification, study, design, development, demonstration, test, evaluation, and qualification of standard avionics capabilities for Navy use, and wherever practicable, use across all Services and Foreign Military Sales. Such air combat electronics developments include communications and airborne networking, navigation and sensors, flight avionics, safety systems, and flight mission information systems for both forward fit and retrofit aircraft. These efforts continue to maintain federated systems while encouraging transition of procurements to support a modular system for enhanced performance and affordability. Consideration is given up front to reduce acquisition costs through larger procurement quantities that satisfy multi-aircraft customer requirements and that reduce life cycle costs in the areas of reliability, maintainability, and training. This project also provides a Navy-wide program to develop required calibration standards (hardware) in all major measurement technology areas in support of Navy Hull, Mechanical and Electrical (HM&E) systems as well as Navy Weapons systems, ground and air, throughout the Fleet. It funds Navy lead-service responsibilities in the DOD and Joint Services Metrology Research and Development program. This project supports the military requirement to verify the performance of all test systems used to validate the operation of HM&E as well as Navy Weapon Systems with calibration standards traceable to the National Institute of Standards and Technology.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	49.439	84.988	91.136	-	91.136
Current President's Budget	47.406	84.988	99.891	-	99.891
Total Adjustments	-2.033	0.000	8.755	-	8.755
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.139	0.000			
• SBIR/STTR Transfer	-0.894	0.000			
• Program Adjustments	0.000	0.000	9.207	-	9.207
• Rate/Misc Adjustments	0.000	0.000	-0.452	-	-0.452

Change Summary Explanation

Technical: Not applicable.

Schedule:

0572:

Communication, Navigation, Surveillance/Air Traffic Management - Developing a model to ensure the design of Mode S systems in developmental platforms meets diversity requirements. Evaluating ADS-B (Out) technologies and developing solutions that will support platform integrations on the E-2D, P-8A, JSF, CH-53K, and UAVs to meet 2020 mandate in CONUS. CNS/ATM Common Component software being developed to support RNP RNAV certification of platforms to include the E-2D, CH-53K, and JSF. P-8A Required Navigation Performance Area Navigation Test and Evaluation and certification extended into 3Q FY13 due to technical challenges. MH-53E Automatic Dependent Surveillance-Broadcast DT/OT removed from schedule due to reprioritization by OPNAV.

Ground Proximity Warning System/Terrain Awareness Warning System (GPWS/TAWS) - H-60 TAWS II MS B moved to 3Q FY13, MS C moved to 2Q FY17, and IT&E changed to DT due to change in acquisition strategy. MH-60 TAWS II S/W Development and Integration start date moved from 3Q FY12 to 4Q FY13 and end date moved from 4Q FY15 to 2Q FY15 due to change in acquisition strategy and to align with platform schedule. H-1 GPWS DT start moved from 1Q FY12 to 2Q FY13 and end moved from 4Q FY12 to 3Q FY13 due to change in platform test schedule. H-1 GPWS S/W Development added 2Q-4Q FY12 to align with platform schedule. MV-22 TAWS II Requirements Development start moved from 4Q FY17 to 3Q FY17 to align with platform schedule.

Military Flight Operations Quality Assurance - Program re-baselined in December 2011 due to requirements changes and testing delays. MS C and IOC moved from 3Q FY12 to 2Q FY14.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
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Collaborative Warfare - Added FLEX 13 2Q FY12 to 3Q FY13 due to the next step beyond TRIDENT WARRIOR 11 to use an integrated tactical network for netted sensors correlation and fusion. NEXT Gate 1 Resource Requirements Review Board (R3B) moved from 1Q FY11 to 4Q FY13 due to a timeline extension required to align with the Offensive Anti-Surface Warfare Weapon Analysis of Alternatives (AoA) as directed by the R3B, and an administrative staffing error between the approving authority and the Capabilities Based Assessment sponsor.

Advanced Digital Data Set - FY12 Development contract and MS B delayed from 3Q FY12 to 3Q FY13 due to New Acquisition documentation requirements mandated by DoDI 5000.2E and changes to the acquisition strategy. Specifically, requirement for independent AoA was levied on all new start programs.

Mid Air Collision Avoidance Capability (MCAC) - Revised MCAC Acquisition Milestones: MS B 3Q FY14. Revised MCAC Systems Development and T&E Milestones based on current acquisition plans. Revised Integration efforts to account for MH-60R/S and UH-1Y/AH-1Z software update schedules.

1857: Not Applicable.

2311: Acquisition Milestone Changes:

Due to efficiencies gained from competing the Primary Software Development contract, the Weaponeering and Stores Planning (WASP) schedule for V3.2, V3.3, and V3.4/V4.0 were able to be accelerated in order to better meet the fleet's requirements.

V3.2 Milestones were adjusted accordingly: Software Requirements Review (SRR) from 3QFY14 to 4QFY13, Preliminary Design Review (PDR) from 3QFY14 to 1QFY14, Critical Design Review (CDR) from 4QFY14 to 1QFY14, Test Readiness Review (TRR) from 2QFY15 to 3QFY14, Technical Information Review Board (TIRB) from 4QFY15 to 1QFY15, Functional Qualification Test (FQT) from 4QFY15 to 1QFY15, Test & Evaluation (T&E) from 2QFY15 to 3QFY14, and Initial Operational Capability (IOC) from 2QFY16 to 3QFY15.

V3.3 Milestones were adjusted accordingly: SRR from 1QFY16 to 1QFY15, PDR from 1QFY16 to 2QFY15, CDR from 2QFY16 to 2QFY15, TRR from 4QFY16 to 4QFY15, TIRB from 2QFY17 to 2QFY16, FQT from 2QFY17 to 2QFY16, Test & Evaluation (T&E) from 4QFY16 to 4QFY15, and Initial Operational Capability (IOC) from 3QFY17 to 3QFY16.

V3.4 was replaced by V4.0 due to the transition to 64-bit technology, and to align with Joint Mission Planning System (JMPS) 1.5 framework.
2312: Not Applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 0572: *JT Service/NV Std Avionics CP/SB*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0572: *JT Service/NV Std Avionics CP/SB*	762.197	33.454	69.745	85.236	-	85.236	54.733	40.027	44.218	49.007	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

FY14 New Start - Mid Air Collision Avoidance Capability (MCAC).
FY14 Advanced Digital Data Set (ADDS) RDT&E Articles (21) for F/A-18.

A. Mission Description and Budget Item Justification

Joint Services/Navy Standard Avionics Components and Subsystems: This project provides for the identification, study, design, development, demonstration, test, evaluation, and qualification of standard avionics capabilities for Navy use, and wherever practicable, use across all Services and Foreign Military Sales. Standard avionics capabilities under development include the Joint Service Review Committee for Avionics Standardization (JSRC-AS), Communication Navigation Surveillance Air Traffic Management (CNS/ATM), Tactical Communications (TACCOM), Ground Proximity Warning System/Terrain Awareness Warning System (GPWS/TAWS), Military Flight Operations Quality Assurance (MFOQA), Collaborative Warfare (CW), Avionics Component Improvement Program (AvCIP), ADDS and MCAC. Participation in Human Factors Quality Management Board ensures Navy safety upgrades and mandatory safety improvements for naval aircraft.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Joint Service Review Committee for Avionics Standardization (JSRC-AS)	1.258	2.000	2.181
Articles:	0	0	0

Description: The JSRC-AS program supports Congressional and ASN (RDA) direction to control the growing proliferation of unique avionics and improve coordination among the services through the identification, development, and promotion of investigative and development efforts across the services and U.S. Coast Guard. The JRSC-AS supports the development, analysis and review of new avionics requirements with potential for joint service application. The JSRC-AS consists of an O-6 Level principal from each service and Coast Guard as well as the appropriate staff to support joint service working group efforts. The JSRC-AS reports to the O-7 level tri-service Aviation Common Systems Board who reports to the O-9 level Joint Aeronautical Commanders Group.

FY 2012 Accomplishments:

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Provided leadership in support of the Navy's interest to the JSRC tri-service committee promoting commonality and joint programs with focus on interoperability, communications, CNS/ATM, Joint Services avionics obsolescence management and updated of the Core Avionics Master Plan (CAMP). ***FY 2013 Plans:*** Provide leadership and strategic vision as naval aviation's representatives to the JSRC-AS. Participate in joint working groups and promote efforts that makes good technical and economic sense to more than one service. ***FY 2014 Plans:*** Provide leadership and strategic vision as naval aviation's represenatives to the JSRC-AS. Participate in joint working groups and promote efforts that make good technical and economic sense to more than one service.			
Title: Communication Navigation Surveillance/Air Traffic Management (CNS/ATM)	1.480	7.082	22.128
Articles:	0	0	0
Description: This program will conduct and support CNS/ATM research, studies, development, integration, demonstration, test and evaluation efforts for Naval Aviation platforms in development. Platform integration of Mode S, 8.33kHz, Reduced Vertical Separation Minimums (RVSM), Required Navigation Performance Area Navigation (RNP/RNAV), and Automatic Dependent Surveillance-Broadcast (ADS-B) functional integration and certification efforts into naval aircraft. Assist with insertion of communication, navigation, surveillance, and supporting technologies and conduct capability certification on developmental platforms such as E-2D, P-8A, Joint Strike Fighter (JSF), CH-53K, and Unmanned Air Systems. Capabilities include Mode S, 8.33kHz, RVSM, RNP/RNAV, ADS-B, and other civil and military capabilities. ***FY 2012 Accomplishments:*** Commenced integration and certification of 8.33 kHz, MODE S, Reduced Vertical Separation Minimums (RVSM) and RPN RNAV. Assisted with insertion of CNS/ATM technologies on and certification of developmental platforms. ***FY 2013 Plans:*** Develop Mode S diversity requirements and develop solutions for developmental platforms. Evaluate ADS-B (Out) technologies and develop solutions to support platform integrations. Develop CNS/ATM Common Component to support RNP RNAV developmental platform requirements. Assist with insertion of CNS/ATM technologies on and certification of developmental platforms. ***FY 2014 Plans:*** Research Mode S diversity requirements and design solutions for developmental platforms. Evaluate ADS-B (Out) technologies and develop solutions to support platform integrations. Assist with insertion of CNS/ATM technologies on and certification of			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
developmental platforms. Where practical, new technologies will be designed to maximize reuse on future platforms through open architectures including the Future Airborne Capability Environment (FACE).			
Title: Tactical Communications (TACCOM) ***Articles:*** ***Description:*** This program will conduct research, studies, development, integration, demonstration, test and evaluation efforts to ensure tactical communication systems and capabilites are developed and available to support naval aviation requirements. Perform tactical communication platform integration studies and activities to determine technical and cost effective solutions across Naval Aviation. Develop tactical communications (voice/data) requirements, concepts and systems which have application across Naval Aviation. Support all necessary tasks to ensure evolution of legacy communications systems incorporating programmable Communication Security/Information Assurance, Variable Message Format (VMF), Beyond Line-of-Sight, Satellite Communication, High Frequency, civil interoperability, and Joint Precision Approach Landing System data link into the ARC-210 system. Support for networking requirements development and prototyping, Integrated Waveform (IW), Intelligence Broadcast System, Joint Tactical Radio System, Tactical Networks, Datalinks and Link 16. ***FY 2012 Accomplishments:*** Received Joint Interopeability Testing Center (JITC) and NSA certification of the RT-1990(C) and RT-1939(C). Continued development of the Tactical Secure Voice, Crypto Algorithm and IW. Completed release of S/W version 3. ***FY 2013 Plans:*** Continue SATCOM and Variable Message Format (VMF) P3I S/W development. Complete IW and complete release of S/W version 4. ***FY 2014 Plans:*** Continue development of IW and VMF.	6.409 0	3.369 0	2.434 0
Title: Ground Proximity Warning System/Terrain Awareness Warning System (GPWS/TAWS) ***Articles:*** ***Description:*** This program will conduct research, studies, development, integration, demonstration, test and evaluation efforts to meet Naval Aviation GPWS/TAWS requirements. Perform GPWS/TAWS platform integration studies and activities to determine technical and cost effective solutions across Naval Aviation. Develop GPWS/TAWS algorithm tailored to platform performance and missions. Develop simulation models for use at manned flight simulator (MFS) as required for platform tailoring, including procurement of test article hardware for MFS. Evaluate aircraft simulation models for suitability in GPWS/TAWS development effort. Develop GPWS/TAWS algorithms utilizing MFS as real-time hardware and pilot in the loop tool. Develop and evaluate	2.293 0	8.304 0	12.099 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
algorithm interfaces necessary for integration of the algorithm within platform host computer. Develop software code to execute GPWS/TAWS algorithm in host platforms. ***FY 2012 Accomplishments:*** Completed H-1 GPWS software development for Software Configuration Set (SCS) 7.0. Initiated TAWS with obstacles acquisition documentation to support H-60. ***FY 2013 Plans:*** Conduct DT of H-1 GPWS in platform Software Configuration Set (SCS) 7.0. Achieve MS-B for H-60 TAWS with obstacles. Continue TAWS with obstacles requirements definition and software development for H-60. ***FY 2014 Plans:*** Continue H-60 TAWS II S/W development and integration.			
Title: Military Flight Operations Quality Assurance (MFOQA) ***Articles:*** ***Description:*** This program will develop a MFOQA baseline software integration framework using Government procured software modules to perform functions such as flight data analysis, post mission aircrew debrief, aircraft maintenance and system troubleshooting, and mishap investigation to meet Naval Aviation requirements. Additional efforts will include software development and integration for fleet wide shore based and shipboard MFOQA implementation. Develop and evaluate aircraft recorder systems and requirements to meet current and future MFOQA requirements. Prepare and conduct MFOQA acquisition events such as Systems Readiness Review, Preliminary Design Review, Critical Design Review, Developmental Testing, Milestone C (MS C) and follow-on Decision Reviews in support of initial Fixed Wing (Phase 1) and Rotary Wing (Phase 2) platforms. ***FY 2012 Accomplishments:*** Completed Critical Design and initiated Phase 1 Systems Integration. ***FY 2013 Plans:*** Complete Phase 1 Systems Integration; Complete Phase 1 Integrated Test and Initiate Phase 2 Requirements Definition. ***FY 2014 Plans:*** Achieve MS C and initiate fielding to F/A-18C-F and EA-18G. Complete Requirements Definition and software design for Phase 2 (MH-60R/S, M/CH-53, AH-1Z, and UH-1Y).	16.096 0	15.284 0	17.852 0
Title: Collaborative Warfare (CW) ***Articles:***	0.448 0	0.540 0	0.181 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Description: The CW component is a Research & Development effort to identify targeting gaps and determine the warfighting benefit of integrating networked capabilities into naval aircraft to fill those gaps. The CW component also addresses targeting gaps for naval aircraft to operate more effectively with other military services. The following efforts are included: 1) A concept refinement Joint Capability Integration Development System activity, specifically, the Naval Effects Cross Domain Targeting (NEXT) Capabilities Based Assessment and Initial Capabilities Document. 2) Netted sensors proof of concept prototype demonstrations leveraging the Navy's Fleet Experimentation (FLEX) campaign. 3) An integration of Netted Sensors/Sensor Fusion into Naval Aviation Integrated Capabilities Packages supporting multi-mission capability enhancements; a comprehensive Naval Aviation Tactical Networking Strategy; and the Integrated Targeting and Fire Control Roadmap. 4) A Modeling Simulation and Analysis Study to quantify benefits of collaborative warfare capabilities, assess feasibility, and derive initial decomposition to system requirements for use by various platform's Program Objective Memorandum issue sheets. 5) Provide resource sponsor oversight on an Office of Naval Research Future Naval Capability Enabling Capability for an Advanced Tactical Data Link (ATDL) for Naval Aviation. 6) Develop a Joint Tactical Networking Concept of Employment that aligns Navy ATDL and Joint Aerial Layer Network - Maritime with USAF future strategies. ***FY 2012 Accomplishments:*** Initiated Joint Tactical networking Concept of Employment (JTN CONEMP) analysis to identify Navy and Air Force interoperability gaps for the Counter Air and Offensive Anti-Surface Warfare (OASuW) mission areas. This analysis will directly inform Navy and Air Force Service Chief Decisions in the 2013 Air Force-Navy Warfighter Talks as well as contribute to other critical analytical efforts such as the joint Aerial layer network (JALN) AoA, OASuW AoA, and the NEXT CBA/ICD. Completed the first draft of the Naval Effects Cross-domain Targeting (NEXT) Initial Capabilities Document (ICD), articulating collaborative functional gaps across dissimilar nodes in the battle space. Led the effort to organize and prepare for the TRIDENT WARRIOR 13 netted sensors Family of Systems (FoS) experiment. This experiment will demonstrate the military utility of a Tactical Targeting Network Technology (TTNT) and Network Centric Collaborative Targeting (NCCT)-enabled multi-INT correlation architecture and reduce technical risks associated with developing and fielding the relevant technologies. ***FY 2013 Plans:*** Complete the first iteration of the JTN CONEMP and brief results to the March 2013 Air Force - Navy Warfighter Talks. Solicit inputs to refine the NEXT CID, generate AoA guidance, and present to Gate 1 Resourcing Requirements Review Board (R3B) for approval to move forward with an AoA. Complete preparations and execute the TRIDENT WARRIOR 13 netted sensors FoS experiment. ***FY 2014 Plans:*** Develop requirements, standards, and architectures in support of new and updated netted-sensors' CONOPS and capabilities.			
Title: Avionics Component Improvement Program (AvCIP)	1.845	2.423	5.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:	0	0	0
Description: Investigate high value Return On Investment (ROI) component improvement candidate projects in support of NAVAIR Commander's third focus area - Improve "capital A" Affordability. Stop operating and sustainment cost growth by reducing costs for fielded systems and implementing life-cycle cost reduction initiatives as part of new systems development. This program positions resources for next year application to fast-track corrections to existing problematic systems. Projects address critical readiness issues (significant back-orders or impending sustainability failures that threaten to down aircraft), functional performance obsolescence issues (system failing to support mission requirement), and top sustainment cost drivers (out of proportion annual maintenance or repair costs). Resources enable design and development of technology insertion and product redesign or replacement to meet readiness goals, meet mission objectives, or reduce overall sustainment costs. Candidate projects are submitted via a rigorous template, reviewed by a panel of Avionics professionals, and selected based upon urgency, warfighting contributions, breadth of application and scope of ROI. Resources cover engineering elements (including design and development, prototypes, platform integration, test and evaluation), program management and associated logistics elements (including technical data preparation, support equipment, provisioning, and training). Analysis shows that funding applied under this program between 2006 and 2011 will enable sustainment and procurement cost avoidances exceeding a five to one margin by 2020. FY12 AVCIP funding has been moved from PE 0702239N, Project Unit 3170. ***FY 2012 Accomplishments:*** Addressed current fleet problem avionics systems (top readiness degraders, cost drivers, obsolescence-driven sustainability, capability loss, fleet head-hurters). ***FY 2013 Plans:*** Address current fleet problem avionics systems (top readiness degraders, cost drivers, obsolescence-driven sustainability, capability loss, fleet head-hurters). ***FY 2014 Plans:*** Address current fleet problem avionics systems (top readiness degraders, cost drivers, obsolescence-driven sustainability, capability loss, fleet head-hurters).			
Title: Advanced Digital Data Set (ADDS)	3.625	30.743	13.500
Articles:	0	0	21
Description: This program consists of enabling hardware and software solution for an advanced digital data military operating environment replacing the current data transfer systems. This system includes removable memory , secure data management and storage high speed data transfer of Mission and Map data, recording data (including mission, sensor, audio, and video),			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
and maintenance diagnostics. This approach will include development, test, integration, and delivery of development hardware. ADDS will increase mission effectiveness by providing situational awareness, reduce crew workload, and enhanced capability for navigation, and mission planning. Data Transfer Unit (DTU) is a form/fit replacement for the existing Digital Memory Device (DMD), it will perform all the data loader/recorder functions that DMD provides. DTU will add data at rest protection via encryption for all data stored on removable memory; this includes NSA type 1 encryption for mission data and FIPS 140 encryption for maintenance data. DTU will also provide enhanced download speed and increased storage capacity for mission and maintenance data. In order to support full time encryption, DTU will include a ground encryption device for use with the Joint Mission Planning System (JMPS) and software to be integrated into the Automated Maintenance Environment (AME). These enhancements will allow Naval Aircraft to support future weapons, systems, and tactics as well as comply with data at rest requirements. ***FY 2012 Accomplishments:*** Completed Analysis of Alternatives (AOA) and Material Development Decision/Acquisition Strategy Review (MDD/ASR). Developed system specification and Request for Proposal. Initiated coordination with NSA for information assurance. ***FY 2013 Plans:*** Award developmental contract(s). Conduct Systems Requirements Review (SRR) and Preliminary Design Review (PDR). Initiate NSA certification with the vendor to develop Type 1 Encryption. Begin JMPS, AME, and aircraft integration. ***FY 2014 Plans:*** Conduct Critical Design Review and Test Readiness Review. NSA will continue to support the vendor in developing and certifying the Type I encryption. Continue integration efforts and perform flight qualification testing, carrier suitability, and ElectroMagnetic Interference testing.			
Title: Mid Air Collision Avoidance Capability (MCAC) ***Articles:*** ***Description:*** This program will conduct research, studies, development, integration, demonstration, test and evaluation efforts to meet Naval Aviation MCAC requirements. Perform MCAC platform integration studies and activities to determine technical and cost effective solutions across Naval Aviation. Develop MCAC algorithm tailored to platform performance and missions. Develop simulation models for use at manned flight simulator (MFS) as required for platform tailoring, including procurement of test article hardware for MFS. Evaluate aircraft simulation models for suitability in MCAC development effort. Develop MCAC algorithms utilizing MFS as real-time hardware and pilot in the loop tool. Develop and evaluate algorithm interfaces necessary for integration of the algorithm within platform host computers and/or Original Manufacture Equipment Military Transponders.	0.000	0.000	9.861 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2014 Plans: Conduct Materiel Development Decision/Acquisition Strategy Review. Conduct pre-Engineering Manufacturing and Development meeting with Milestone Decision Authority. Conduct Specification Review Board, System Readiness Review/System Functional Review and Preliminary Design Review for software algorithms. Achieve Milestone B and begin engineering changes required in military transponder. Initiate engineering, manufacturing, and development efforts.			
Accomplishments/Planned Programs Subtotals	33.454	69.745	85.236

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/05770: *Common Avionics*	150.660	96.753	120.660		120.660	136.841	165.419	156.070	154.604	406.398	3,467.663

Remarks

D. Acquisition Strategy

CNS/ATM program is a system of systems. The program will encompass the integration of various systems that are currently post-MS C. Systems will be procured utilizing existing contracts for integration on forward-fit and retrofit platforms to provide CNS/ATM functionality. TACCOM is utilizing a firm fixed price contract to Rockwell Collins for research and development of the ARC-210 Gen 5 and other Navy contract vehicles for integration studies. The Navy will integrate systems and components to satisfy platform requirements to achieve tactical communication capability as determined by analyses. GPWS/TAWS Software Modules will be developed by a Government Software Product Team in collaboration with Industry where required. MFOQA Government activities include integrating a combination of existing aircraft hardware, ground support equipment, commercial off the shelf (COTS), government off the shelf hardware and software products. MFOQA program interfaces will be created to share data captured by the automated maintenance systems (e.g., AME, HUMS) and existing databases. The Navy conducted a full and open competition for both the MFOQA software development, integration and support contract as well as the COTS software data analysis product. Follow-on Sole Source Product Contracts will be awarded to complete MFOQA development, as required. AvCIP will annually review, compete and select candidate component improvement proposals according to urgency, criticality of warfighting contributions, technical risk, breadth of application, and scope of Return On Investment. Projects are selected by a panel of Avionics management experts, including representatives from OPNAV N98, NAVAIR, NAVICP, and the Fleet. Projects are executed by managers in platform or commodity offices that own the component. The AvCIP program management team manages project selection, allocates funds, monitors multiple project executions against proposed spend plans, and tracks solution performance and achievement of projected ROI's over time using Fleet maintenance and component performance databases. Cost avoidances are coordinated with OPNAV N98 to balance Flying Hour Program costs. Component improvement solutions include modular hardware, software and material upgrades. Resources cover engineering elements (including design and development, prototypes, platform integration, test and evaluation), program management and associated logistics elements (including technical data preparation, support equipment, provisioning, and training). ADDS will award a contract(s) to Industry for the development and procurement of enabling hardware and software in collaboration with platform program offices utilizing competitive methods wherever possible. Mid Air Collision Avoidance Capability (MCAC) is the capability umbrella which encompasses all systems

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 0572: *JT Service/NV Std Avionics CP/SB*

designed and developed which may aid in air-to-air collison avoidance. Systems include but are not limited to Traffic Collision Avoidance Systems, and Mid-Air Collision Avoidance Systems. MCAC Software Modules will be developed by a Government Software Product Team in collaboration with Industry where required.

E. Performance Metrics

JSRC - Provide leadership in support of the Navy's interest to the JSRC tri-service committee promoting commonality and joint programs with focus on interoperability, communications, CNS/ATM, Joint Services avionics obsolescence management and the update of the CAMP. Support and participate in NARG panels, OAG, and HFQMB.

CNS/ATM - Successfully complete platform integration, test, and certifications.

TACCOM - Achieve JITC and NSA certifications on system developmental efforts to meet operational requirements.

GPWS/TAWS - Develop algorithm and software to meet platform specific requirements, successfully complete flight test, and deliver product on schedule.

MFOQA - Successfully complete MS C and IOC on schedule; successfully complete Phase 2 development and fleet introduction.

CW - Identify collaborative warfighting capability gaps and ensure the development of the most intelligent, cost effective, and timely solutions to fill those gaps.

AvCIP - Successful project competition and selection, execution of allocated funds, fielding of solutions, and documentation of component performance enhancement and benefits.

ADDS - Achieve program acquisition milestones on cost and schedule meeting platform requirements.

MCAC - Achieve program acquisition milestones on cost and schedule meeting platform requirements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 0572: *JT Service/NV Std Avionics CP/SB*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Dev MFOQA	SS/CPIF	Mantech:Fairfax, VA	27.485	6.127	Dec 2011	2.922	Dec 2012	2.938	Dec 2013	-		2.938	0.000	39.472	39.471
Primary Hardware Dev MFOQA	SS/CPFF	BGI:Akron, OH	3.981	4.156	May 2012	5.073	Dec 2012	6.058	Dec 2013	-		6.058	0.000	19.268	19.268
Primary Hardware Dev GPWS	TBD	Lockheed Martin:Not Specified	0.000	0.000		2.230	Feb 2013	4.779	Feb 2014	-		4.779	0.000	7.009	7.009
Primary Hardware Dev ADDS	SS/BOA	Physical Optics Corporation:Torrance, CA	0.000	0.000		8.500	May 2013	0.000		-		0.000	0.000	8.500	8.500
Primary Hardware Dev ADDS	TBD	TBD:TBD	0.000	0.000		16.960	Jun 2013	11.040	Dec 2013	-		11.040	8.700	36.700	36.700
Primary Hardware Dev MCAC	TBD	BAE:TBD	0.000	0.000		0.000		7.740	Dec 2013	-		7.740	0.000	7.740	7.740
Primary Hardware Dev	Various	Various:Various	61.464	0.509	Mar 2012	2.502	Mar 2013	3.408	Mar 2014	-		3.408	Continuing	Continuing	Continuing
Aircraft Integration TACCOM	SS/FFP	Rockwell Collins:Cedar Rapids, IA	57.049	0.000		0.000		0.000		-		0.000	0.000	57.049	57.049
Aircraft Integration	Various	Various:Various	41.036	1.360	Mar 2012	0.764	Mar 2013	1.101	Mar 2014	-		1.101	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWCAD:Patuxent River, MD	22.668	3.175	Nov 2011	2.853	Nov 2012	4.577	Dec 2013	-		4.577	Continuing	Continuing	Continuing
Training Development	C/BA	DP Associates:Alexandria, VA	0.000	0.000		0.027	Nov 2012	0.000		-		0.000	0.000	0.027	0.027
Prior year Prod Dev costs no longer funded in FYDP	Various	Various:Various	337.371	0.000		0.000		0.000		-		0.000	0.000	337.371	
		Subtotal	551.054	15.327		41.831		41.641		0.000		41.641			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	Various	Various:Various	2.261	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development CNS/ATM	MIPR	Defense Technical Information Center:Ft. Belvoir, VA	0.000	0.000		0.000		5.661	Dec 2013	-		5.661	0.000	5.661	5.661
Software Development	Various	Various:Various	1.975	0.000		0.000		0.000		-		0.000	0.000	1.975	
Integrated Logistics Support ADDS	SS/FFP	Boeing:St. Louis, MO	0.000	0.000		4.343	Jun 2013	1.000	Dec 2013	-		1.000	0.000	5.343	5.343
Integrated Logistics Support	Various	Vartious:Various	13.558	1.962	Mar 2012	1.772	Mar 2013	2.024	Mar 2014	-		2.024	Continuing	Continuing	Continuing
Studies and Analysis	Various	Various:Various	17.172	0.100	Apr 2012	0.700	Feb 2013	0.000		-		0.000	0.000	17.972	
Prior year Support costs no longer funded in FYDP	Various	Various:Various	25.371	0.000		0.000		0.000		-		0.000	0.000	25.371	
		Subtotal	60.337	2.062		6.815		8.685		0.000		8.685			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test and Evaluation	WR	NAWCAD:Patuxent River, MD	7.821	1.485	Jan 2012	2.394	Jan 2013	5.060	Jan 2014	-		5.060	Continuing	Continuing	Continuing
Prior year T&E costs no longer funded in FYDP	Various	Various:Various	39.111	0.000		0.000		0.000		-		0.000	0.000	39.111	
		Subtotal	46.932	1.485		2.394		5.060		0.000		5.060			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	Various:Various	51.825	7.898	Feb 2012	7.998	Feb 2013	12.429	Feb 2014	-		12.429	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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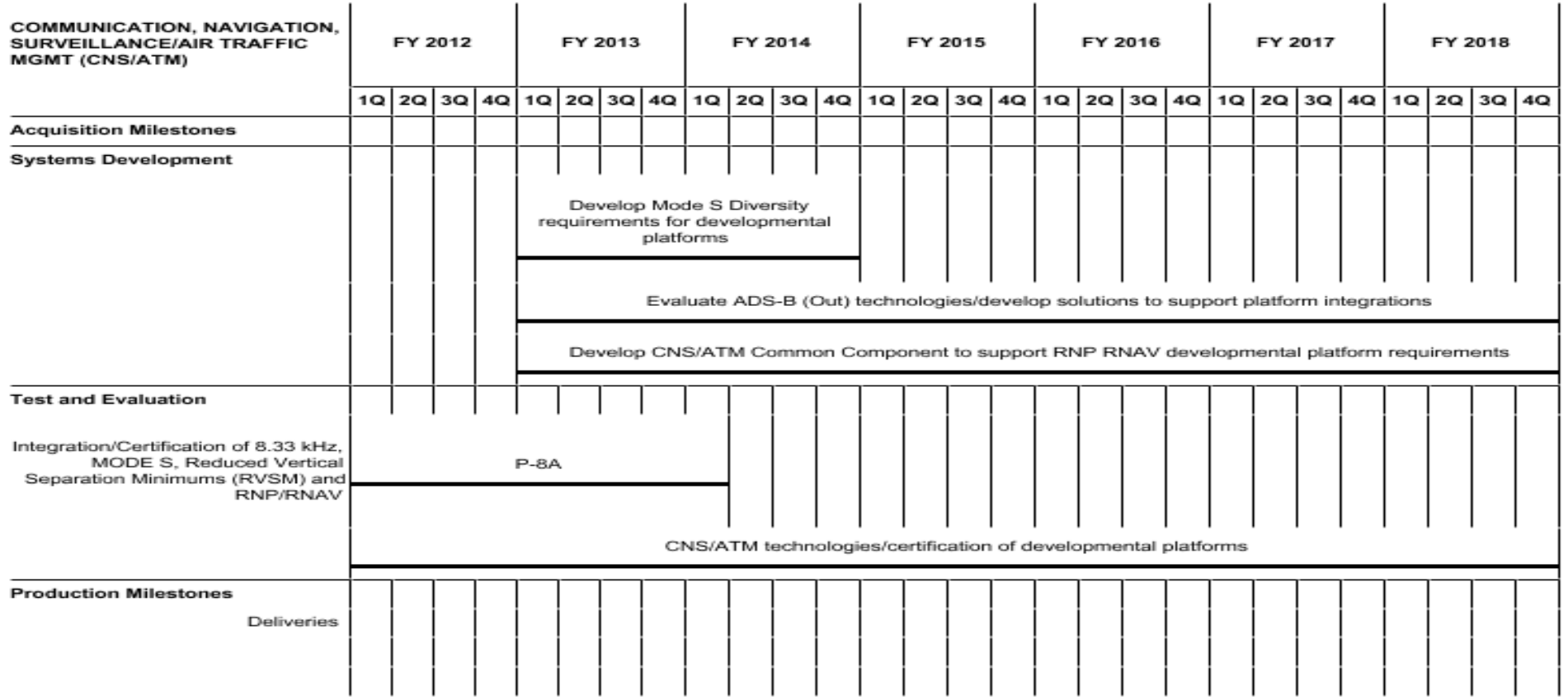
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD:Patuxent River, MD	14.944	4.337	Mar 2012	5.750	Mar 2013	9.075	Mar 2014	-		9.075	Continuing	Continuing	Continuing
Program Management Support	WR	NAWCAD:Patuxent River, MD	14.489	2.285	Mar 2012	4.836	Mar 2013	8.078	Mar 2014	-		8.078	Continuing	Continuing	Continuing
Travel	WR	NAVAIR:Patuxent River, MD	1.080	0.060	Oct 2011	0.121	Oct 2012	0.268	Oct 2013	-		0.268	Continuing	Continuing	Continuing
Prior year Mgmt costs no longer funded in FYDP	Various	Various:Various	21.536	0.000		0.000		0.000		-		0.000	0.000	21.536	
		Subtotal	103.874	14.580		18.705		29.850		0.000		29.850			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	762.197	33.454		69.745		85.236		0.000		85.236			

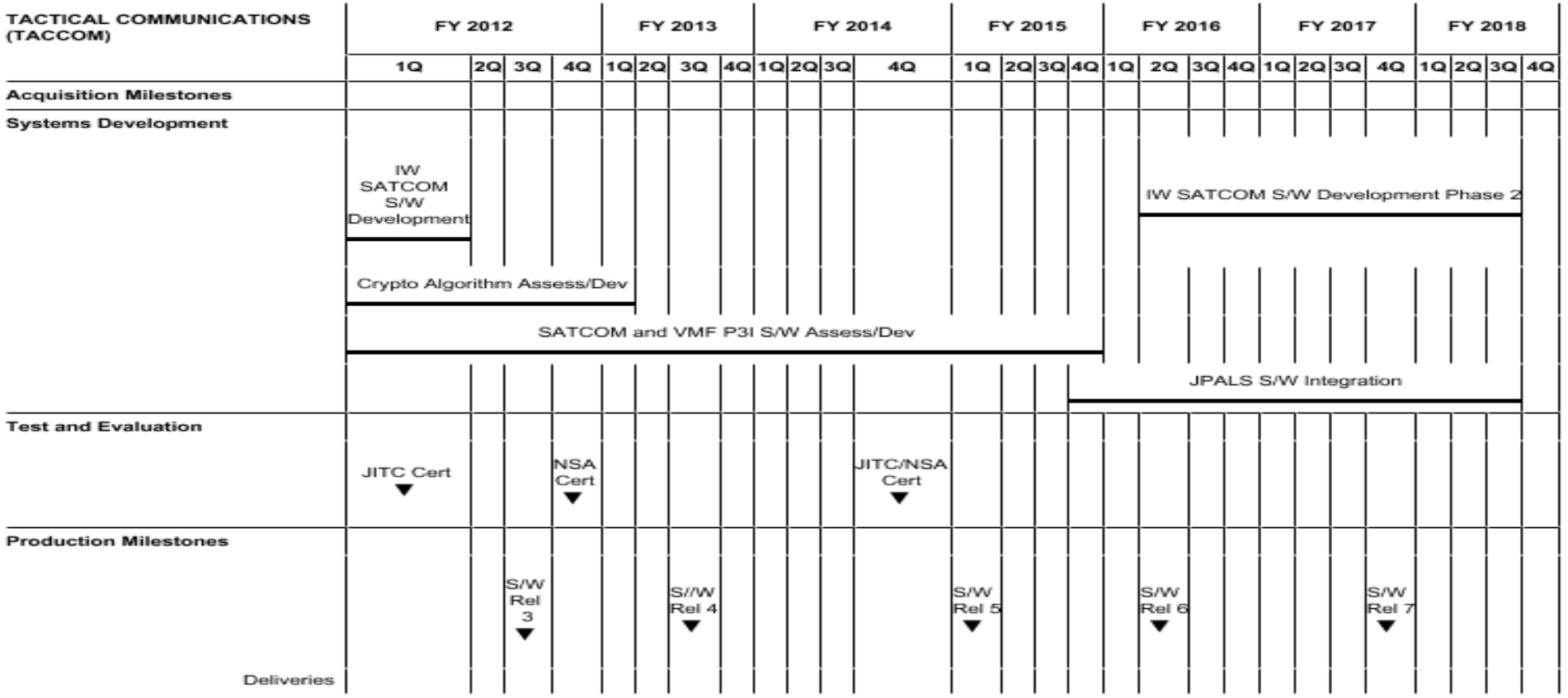
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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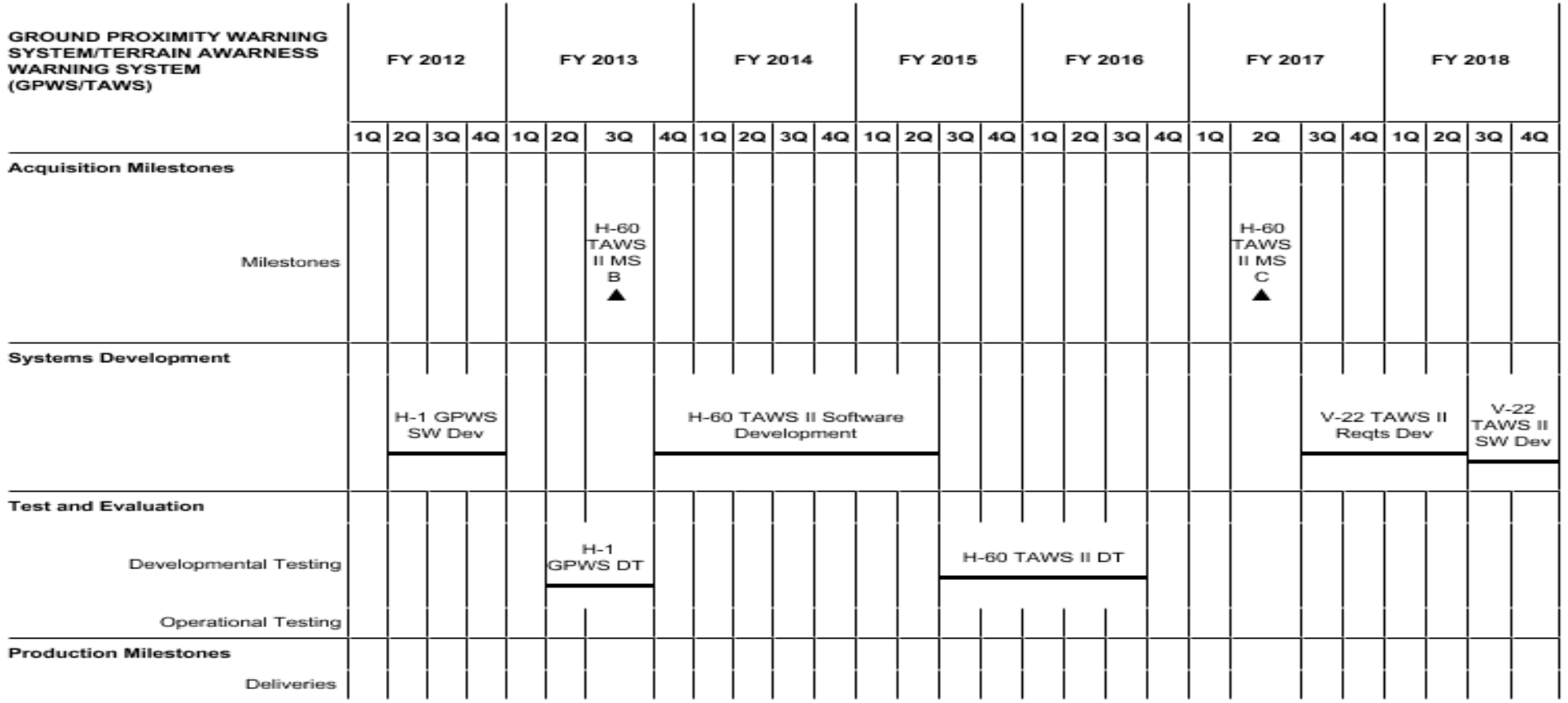
2014PB - 0604215N - 0572

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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2014PB - 0604215N - 0572

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2014PB - 0604215N - 0572

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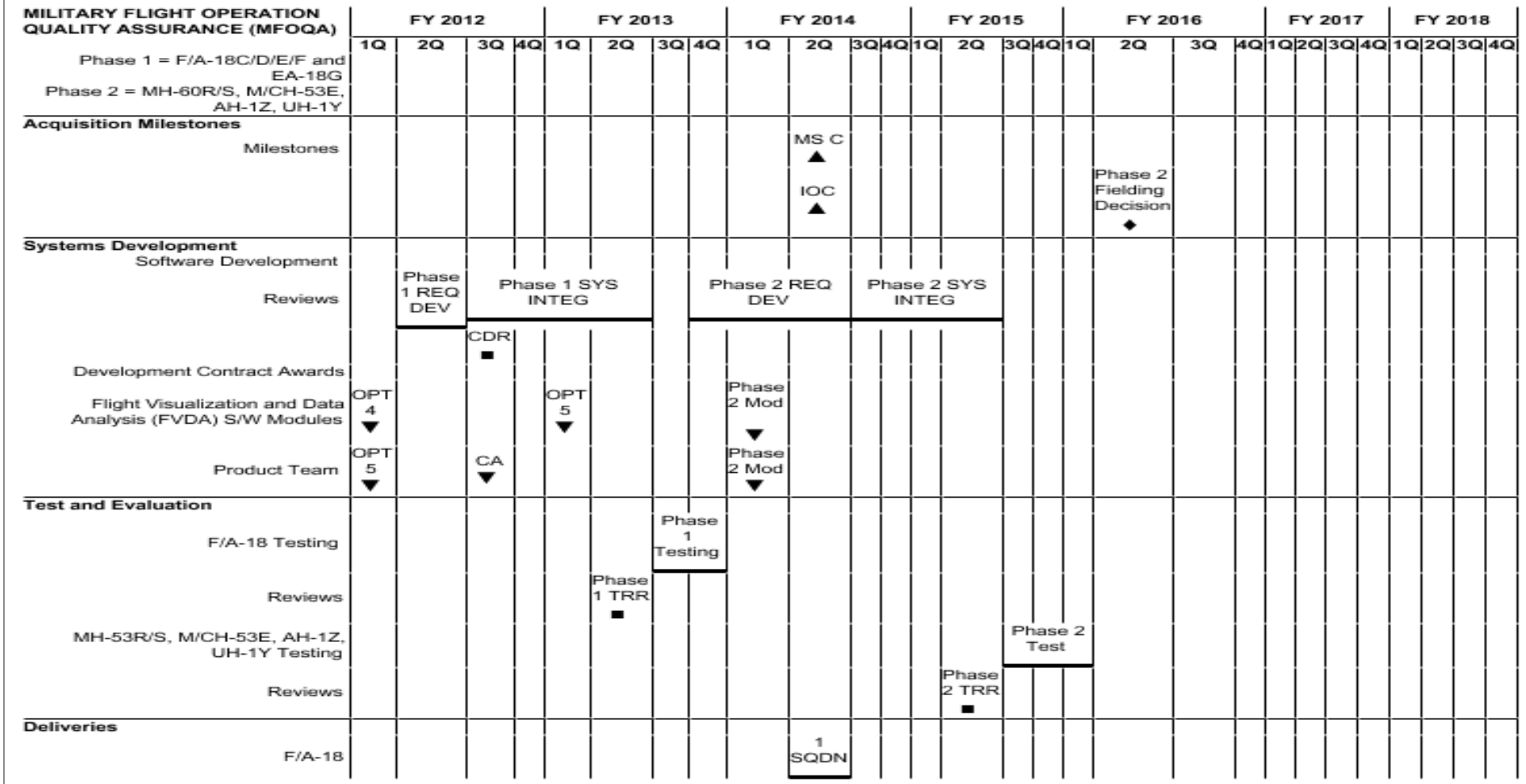
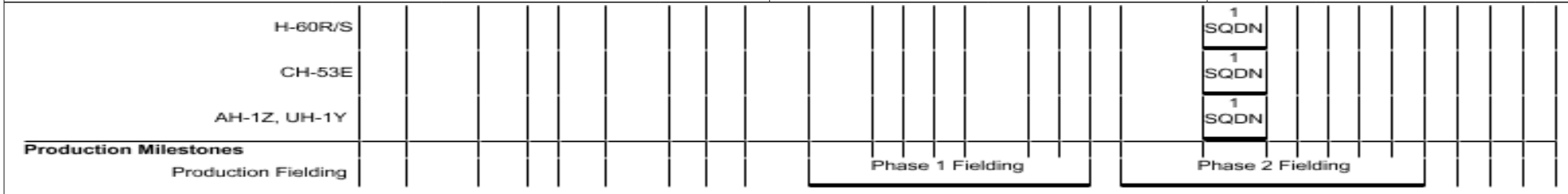
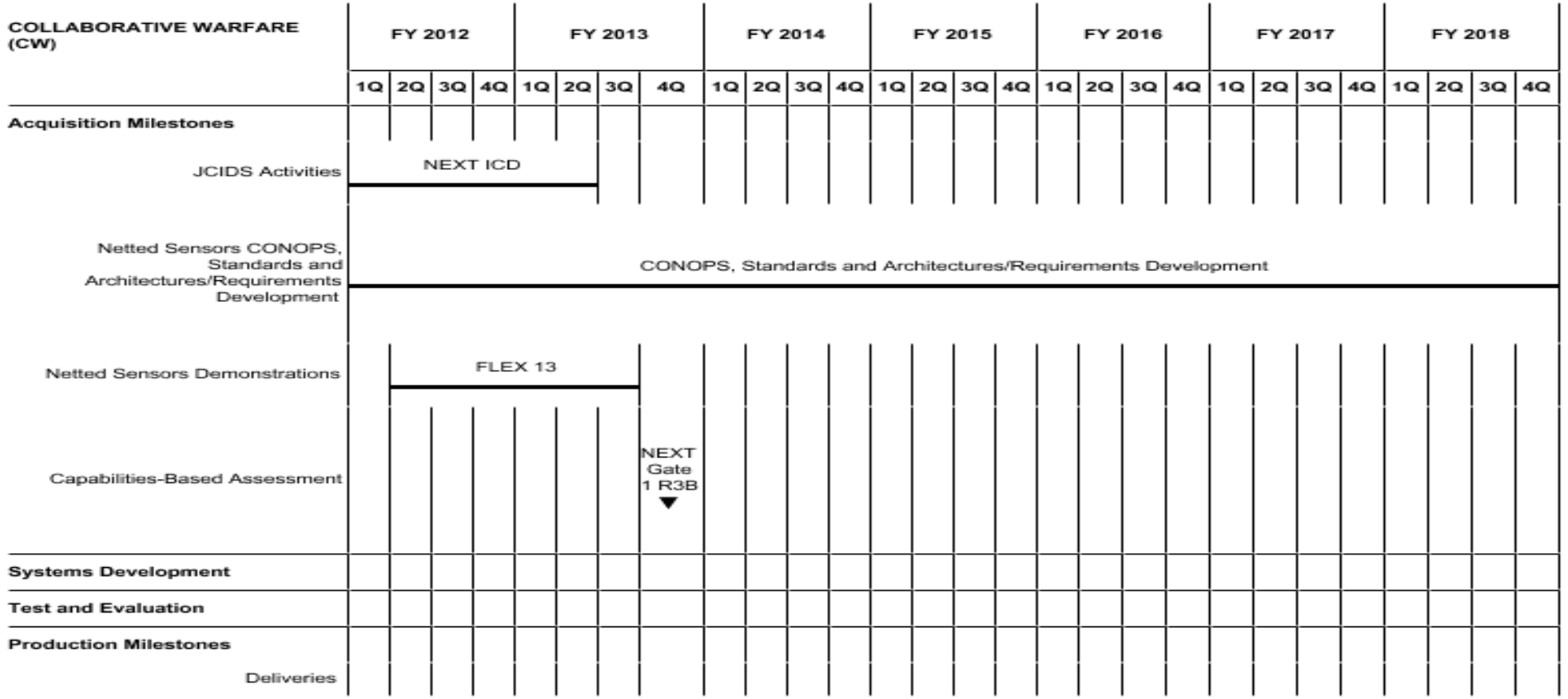


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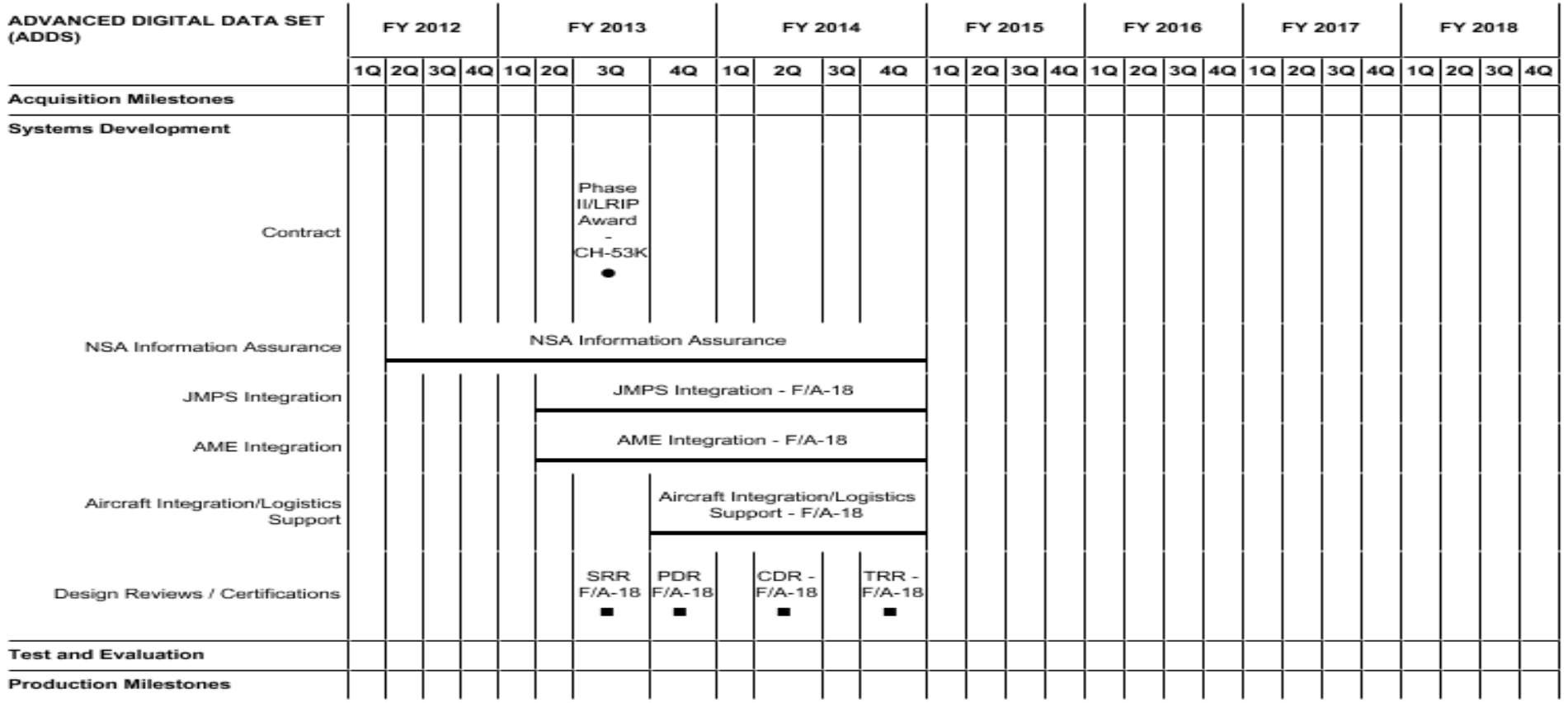
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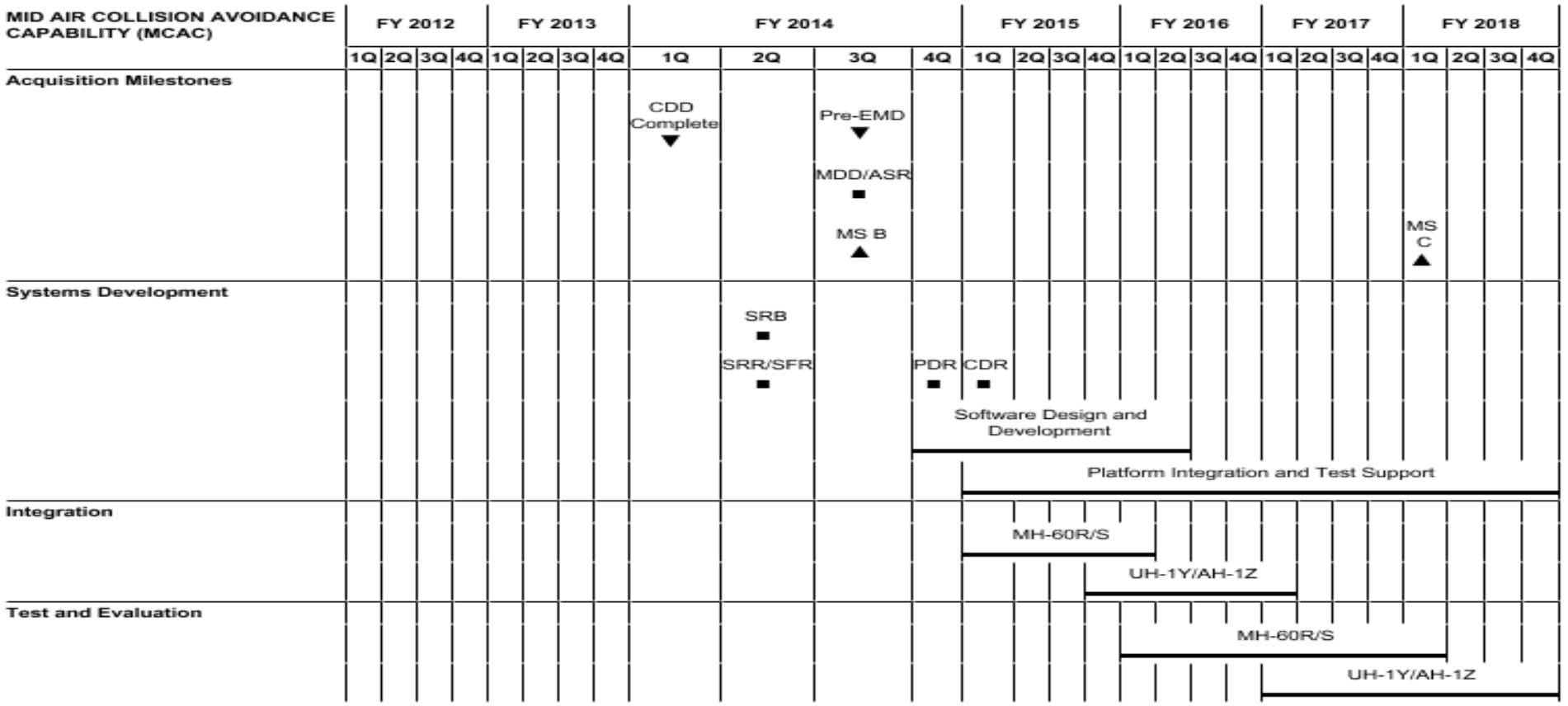
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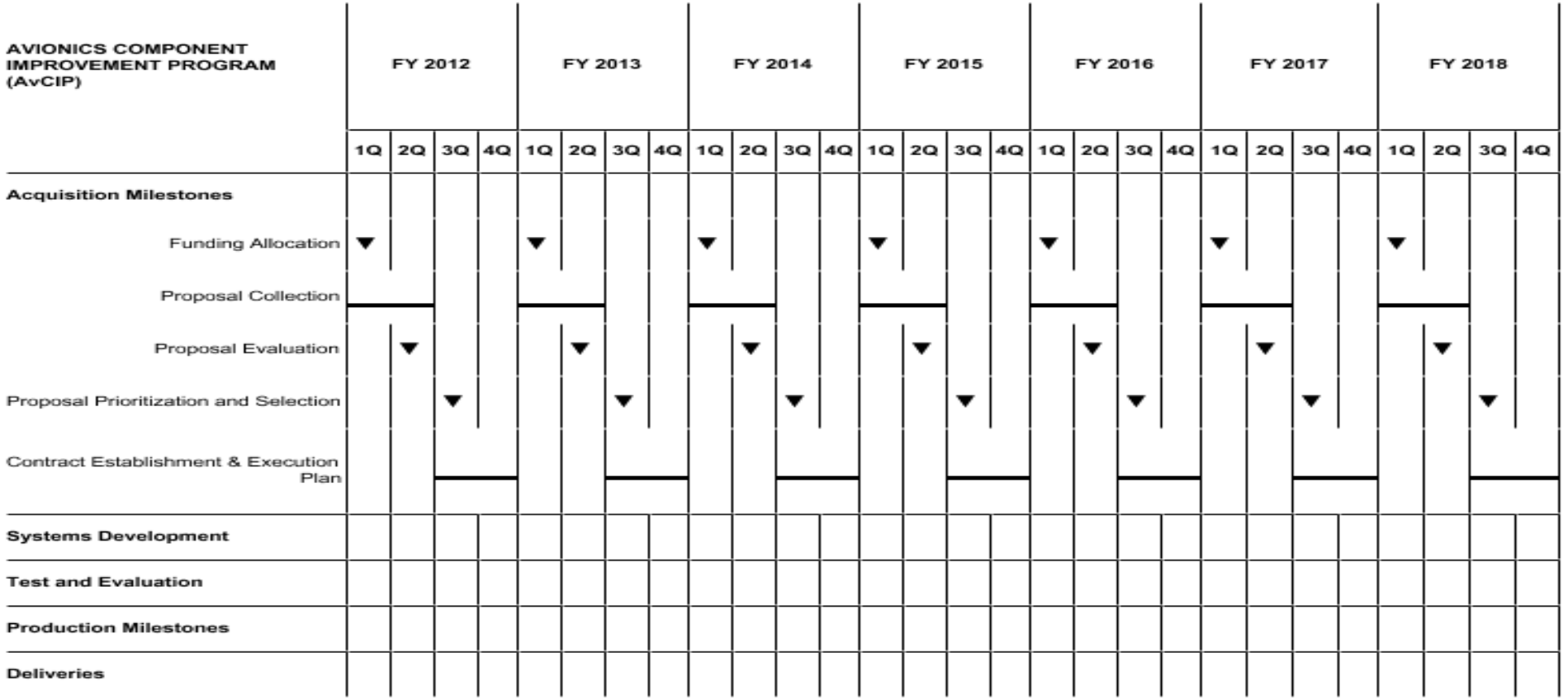
2014PB - 0604215N - 0572

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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2014PB - 0604215N - 0572

Exhibit R-4, **RDT&E Schedule Profile:** PB 2014 Navy		**DATE:** April 2013
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2014PB - 0604215N - 0572

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
COMMUNICATION, NAVIGATION, SURVEILLANCE/AIR TRAFFIC MGMT (CNS/ATM)				
Systems Development: Develop Mode S Diversity requirements for developmental platforms	1	2013	4	2014
Systems Development: Evaluate ADS-B (Out) technologies and develop solutions to support platform integrations	1	2013	4	2018
Systems Development: Develop CNS/ATM Common Component to support RNP RNAV developmental platform requirements	1	2013	4	2018
Test and Evaluation: Integration/Certification of 8.33 kHz, MODE S, Reduced Vertical Separation Minimums (RVSM) and RNP/RNAV: P-8A Integration/Certification 8.33 kHz, MODE S, RVSM, RNP RNAV	1	2012	1	2014
Test and Evaluation: Integration/Certification of 8.33 kHz, MODE S, Reduced Vertical Separation Minimums (RVSM) and RNP/RNAV: CNS/ATM technologies/certification of developmental platforms	1	2012	4	2018
TACTICAL COMMUNICATIONS (TACCOM)				
Systems Development: GEN 5 Integrated Waveform Satellite Communications (SATCOM) S/W Development	1	2012	1	2012
Systems Development: GEN 5 Integrated Waveform Satellite Communications (SATCOM) S/W Development Phase 2	2	2016	3	2018
Systems Development: GEN 5 Crypto Algorithm Assessment/Development	1	2012	1	2013
Systems Development: GEN 5 SATCOM P3I S/W Assessment/Development	1	2012	4	2015
Systems Development: Joint Precision Approach Landing System (S/W) Integration	4	2015	3	2018
Test and Evaluation: GEN 5 JTIC Certification1	1	2012	1	2012
Test and Evaluation: GEN 5 JTIC Certification2	4	2014	4	2014
Test and Evaluation: GEN 5 National Security Agency (NSA) Certification1	4	2012	4	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Production Milestones: GEN 5 Evol S/W Releases 3	3	2012	3	2012
Production Milestones: GEN 5 Evol S/W Releases 4	3	2013	3	2013
Production Milestones: GEN 5 Evol S/W Releases 5	1	2015	1	2015
Production Milestones: GEN 5 Evol S/W Releases 6	2	2016	2	2016
Production Milestones: GEN 5 Evol S/W Releases 7	4	2017	4	2017
GROUND PROXIMITY WARNING SYSTEM/TERRAIN AWARNESS WARNING SYSTEM (GPWS/TAWS)				
Acquisition Milestones: Milestones: H-60 TAWS II MS B	3	2013	3	2013
Acquisition Milestones: Milestones: H-60 TAWS II MS C	2	2017	2	2017
Systems Development: H-1 GPWS SW Dev	2	2012	4	2012
Systems Development: H-60 TAWS II Software Development	4	2013	2	2015
Systems Development: V-22 TAWS II Reqts Dev	3	2017	2	2018
Systems Development: V-22 TAWS II SW Dev	3	2018	4	2018
Test and Evaluation: Developmental Testing: H-1 GPWS DT	2	2013	3	2013
Test and Evaluation: Developmental Testing: H-60 TAWS II DT	3	2015	3	2016
MILITARY FLIGHT OPERATION QUALITY ASSURANCE (MFOQA)				
Acquisition Milestones: Milestones: Milestone C (MS C)	2	2014	2	2014
Acquisition Milestones: Milestones: IOC	2	2014	2	2014
Acquisition Milestones: Milestones: Phase 2 Fielding Decision	2	2016	2	2016
Systems Development: Reviews: Phase 1 Req Dev	2	2012	2	2012
Systems Development: Reviews: Phase 1 Sys Integration	3	2012	2	2013
Systems Development: Reviews: Phase 2 Req Dev	4	2013	2	2014
Systems Development: Reviews: Phase 2 Sys Integration	3	2014	2	2015
Systems Development: Reviews: CDR	3	2012	3	2012
Systems Development: Flight Visualization and Data Analysis (FVDA) S/W Modules: FVDA S/W Modules OPT4	1	2012	1	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Systems Development: Flight Visualization and Data Analysis (FVDA) S/W Modules: FVDA S/W Modules Contract Award RDTEN	1	2013	1	2013
Systems Development: Flight Visualization and Data Analysis (FVDA) S/W Modules: Phase 2 Mod	1	2014	1	2014
Systems Development: Product Team: Product Team Contract Award RDT&EN OPT5	1	2012	1	2012
Systems Development: Product Team: Product Team Contract Award RDT&EN CA	3	2012	3	2012
Systems Development: Product Team: Phase 2 Mod	1	2014	1	2014
Test and Evaluation: F/A-18 Testing: Phase 1 Testing	3	2013	4	2013
Test and Evaluation: Reviews: Phase 1 TRR	2	2013	2	2013
Test and Evaluation: MH-53R/S, M/CH-53E, AH-1Z, UH-1Y Testing: Phase 2 Test	3	2015	1	2016
Test and Evaluation: Reviews: Phase 2 TRR	2	2015	2	2015
Deliveries: F/A-18: 1 Squadron R&D	2	2014	2	2014
Deliveries: H-60R/S: 1 Squadron R&D	3	2016	3	2016
Deliveries: CH-53E: 1 Squadron R&D	3	2016	3	2016
Deliveries: AH-1Z, UH-1Y: 1 Squadron R&D	3	2016	3	2016
Production Milestones: Production Fielding: Phase 1 Fielding	2	2014	4	2015
Production Milestones: Production Fielding: Phase 2 Fielding	2	2016	4	2017
COLLABORATIVE WARFARE (CW)				
Acquisition Milestones: JCIDS Activities: NEXT ICD	1	2012	2	2013
Acquisition Milestones: Netted Sensors CONOPS, Standards and Architectures/ Requirements Development: Netted Sensors CONOPS, Standards, and Architectures/ Requirements Development	1	2012	4	2018
Acquisition Milestones: Netted Sensors Demonstrations: FLEX 13	2	2012	3	2013
Acquisition Milestones: Capabilities-Based Assessment: NEXT Gate 1 R3B	4	2013	4	2013
ADVANCED DIGITAL DATA SET (ADDS)				
Systems Development: Contract: Phase II/LRIP Award - CH-53K	3	2013	3	2013

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APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 0572: *JT Service/NV Std Avionics CP/SB*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Systems Development: NSA Information Assurance: NSA Effort - F/A-18	2	2012	4	2014
Systems Development: JMPS Integration: JMPS Integration - F/A-18	2	2013	4	2014
Systems Development: AME Integration: AME Integration - F/A-18	2	2013	4	2014
Systems Development: Aircraft Integration/Logistics Support: Aircraft Integration/ Logistics Support - F/A-18	4	2013	4	2014
Systems Development: Design Reviews / Certifications: SRR	3	2013	3	2013
Systems Development: Design Reviews / Certifications: PDR - F/A-18	4	2013	4	2013
Systems Development: Design Reviews / Certifications: CDR - F/A-18	2	2014	2	2014
Systems Development: Design Reviews / Certifications: TRR - F/A-18	4	2014	4	2014
MID AIR COLLISION AVOIDANCE CAPABILITY (MCAC)				
Acquisition Milestones: CDD Complete	1	2014	1	2014
Acquisition Milestones: Pre-EMD	3	2014	3	2014
Acquisition Milestones: MDD/ASR	3	2014	3	2014
Acquisition Milestones: MS B	3	2014	3	2014
Acquisition Milestones: MS C	1	2018	1	2018
Systems Development: SRB	2	2014	2	2014
Systems Development: SRR/SFR	2	2014	2	2014
Systems Development: PDR	4	2014	4	2014
Systems Development: CDR	1	2015	1	2015
Systems Development: Software Design and Development	4	2014	2	2016
Systems Development: Platform Integration and Test Support	1	2015	4	2018
Integration: MH-60R/S	1	2015	1	2016
Integration: UH-1Y/AH-1Z	4	2015	1	2017
Test and Evaluation: MH-60R/S	1	2016	1	2018
Test and Evaluation: UH-1Y/AH-1Z	1	2017	4	2018
AVIONICS COMPONENT IMPROVEMENT PROGRAM (AvCIP)				

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 0572: *JT Service/NV Std Avionics CP/SB*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Acquisition Milestones: Funding Allocation: Funding Allocation 12	1	2012	1	2012
Acquisition Milestones: Funding Allocation: Funding Allocation 13	1	2013	1	2013
Acquisition Milestones: Funding Allocation: Funding Allocation 14	1	2014	1	2014
Acquisition Milestones: Funding Allocation: Funding Allocation 15	1	2015	1	2015
Acquisition Milestones: Funding Allocation: Funding Allocation 16	1	2016	1	2016
Acquisition Milestones: Funding Allocation: Funding Allocation 17	1	2017	1	2017
Acquisition Milestones: Funding Allocation: Funding Allocation 18	1	2018	1	2018
Acquisition Milestones: Proposal Collection: Proposal Collection 12	1	2012	2	2012
Acquisition Milestones: Proposal Collection: Proposal Collection 13	1	2013	2	2013
Acquisition Milestones: Proposal Collection: Proposal Collection 14	1	2014	2	2014
Acquisition Milestones: Proposal Collection: Proposal Collection 15	1	2015	2	2015
Acquisition Milestones: Proposal Collection: Proposal Collection 16	1	2016	2	2016
Acquisition Milestones: Proposal Collection: Proposal Collection 17	1	2017	2	2017
Acquisition Milestones: Proposal Collection: Proposal Collection 18	1	2018	2	2018
Acquisition Milestones: Proposal Evaluation: Proposal Evaluation 12	2	2012	2	2012
Acquisition Milestones: Proposal Evaluation: Proposal Evaluation 13	2	2013	2	2013
Acquisition Milestones: Proposal Evaluation: Proposal Evaluation 14	2	2014	2	2014
Acquisition Milestones: Proposal Evaluation: Proposal Evaluation 15	2	2015	2	2015
Acquisition Milestones: Proposal Evaluation: Proposal Evaluation 16	2	2016	2	2016
Acquisition Milestones: Proposal Evaluation: Proposal Evaluation 17	2	2017	2	2017
Acquisition Milestones: Proposal Evaluation: Proposal Evaluation 18	2	2018	2	2018
Acquisition Milestones: Proposal Prioritization and Selection: Proposal Prioritization and Selection 12	3	2012	3	2012
Acquisition Milestones: Proposal Prioritization and Selection: Proposal Prioritization and Selection 13	3	2013	3	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 0572: *JT Service/NV Std Avionics CP/SB*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Acquisition Milestones: Proposal Prioritization and Selection: Proposal Prioritization and Selection 14	3	2014	3	2014
Acquisition Milestones: Proposal Prioritization and Selection: Proposal Prioritization and Selection 15	3	2015	3	2015
Acquisition Milestones: Proposal Prioritization and Selection: Proposal Prioritization and Selection 16	3	2016	3	2016
Acquisition Milestones: Proposal Prioritization and Selection: Proposal Prioritization and Selection 17	3	2017	3	2017
Acquisition Milestones: Proposal Prioritization and Selection: Proposal Prioritization and Selection 18	3	2018	3	2018
Acquisition Milestones: Contract Establishment & Execution Plan: Contract Establishment & Execution Plan 12	3	2012	4	2012
Acquisition Milestones: Contract Establishment & Execution Plan: Contract Establishment & Execution Plan 13	3	2013	4	2013
Acquisition Milestones: Contract Establishment & Execution Plan: Contract Establishment & Execution Plan 14	3	2014	4	2014
Acquisition Milestones: Contract Establishment & Execution Plan: Contract Establishment & Execution Plan 15	3	2015	4	2015
Acquisition Milestones: Contract Establishment & Execution Plan: Contract Establishment & Execution Plan 16	3	2016	4	2016
Acquisition Milestones: Contract Establishment & Execution Plan: Contract Establishment & Execution Plan 17	3	2017	4	2017
Acquisition Milestones: Contract Establishment & Execution Plan: Contract Establishment & Execution Plan 18	3	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 1857: *Calibration Standards*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1857: *Calibration Standards*	7.698	1.338	1.856	1.835	-	1.835	1.909	1.939	1.985	2.011	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

OPNAV sponsored (by instruction), Navy-wide program which addresses Metrology related RDT&E issues for navy weapon systems, shipboard platforms, Naval Air, and Fleet Ground Marines. It supports development of calibration standards (equipment, procedures and technical data) required to resolve Metcal related safety, obsolescence, new and emerging technology support and cost reduction issues. It funds Navy unique and lead service responsibilities in DoD and Joint Services Metrology Research Programs to develop calibration solutions. The line supports development of measurement requirements to verify performance of all test systems used to validate the operation of Navy weapon Systems with calibration standards traceable to the National Institute of Standards and Technology to calibrate, sustain and ensure performance accuracy.

This program also provides benefits and efficiencies in a joint collaborative environment within the Tri-Services. Projects are identified and defined so that they will meet the universal requirement. Development efforts are integrated in order to achieve the common capabilities required at minimum cost. This is also a regular and common business practice within the Navy Metrology Community where R&D efforts are communicated and integrated into the multiple testing and Monitoring Systems. This is done in support of Program Managers, Sponsors, and Principle Executive officers. As a result, common requirements are established, duplication of efforts are eliminated, and best value, high quality Metcal products are produced for the Navy.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Calibration Standards	1.338	1.856	1.835
Articles:	0	0	0
FY 2012 Accomplishments:			
($.130) Transition a calibration standard (hardware) in support of chemical and biological detection systems.			
($.253) Transition a couple of electro optical measurement calibration standards (hardware) to support flight safety and operations.			
($.180) Transition analytical metrology (processes) in support of automated interval and uncertainty analysis.			
($.165) Continue development of calibration standards (hardware) in support of chemical and biological detection systems (chemical warfare agent detection systems).			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 1857: *Calibration Standards*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
($.231) Continue development of physical and mechanical calibration standards (hardware) in support of Fleet shipboard calibration enhancements. ($.250) Continue development of electro optical standards (hardware) in support of safety of flight operations. ($.129) Continue development of analytical metrology (processes) in support of automated interval and uncertainty analysis. ***FY 2013 Plans:*** ($.759) Continue to develop calibration standards (hardware) in support of physical mechanical and chemical biological detection systems. ($.321) Continue development of physical and mechanical calibration standards in support of Fleet shipboard calibration enhancements. ($.776) Continue development of standards in support of electro optical nigh vision systems and boresight calibration. ***FY 2014 Plans:*** ($.632) Transition calibration standards in support of electro optical standards (hardware) in support of safety of flight operations. ($.872) Continue development of calibration standards (hardware) in support of chemical and biological detection systems (chemical warfare agent detection systems). ($.331) Continue development of analytical metrology (processes) in support of automated interval and uncertainty analysis.			
Accomplishments/Planned Programs Subtotals	1.338	1.856	1.835

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Funds provide for in-service engineering initiation of metrology research and developmental efforts of unique non-commercial hardware standards in the development of six key thrust technological areas which correspond to Chembio Defense, Microwave/Millimeter wave, Physical Mechanical, Electro-Optical, Analytical Metrology and Electrical/Electronic systems. These standards will ensure measurement accuracy in advanced and emerging combat weapon systems and associated test equipment.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 1857: *Calibration Standards*

These hardware test standards will also provide for cost effective and efficient system maintenance and calibration measurements that reduce wrong test decisions and will result in lower maintenance cost and higher system performance reliability.

E. Performance Metrics

The U.S. Navy Metrology RDT&E Program will transition 4 current projects within the next 12 months in technology area of Electro Optical, Physical Mechanical, Nuclear, Biological and Chemical, and Analytical metrology in new calibration hardware and processes. Will continue the research and development of 5 projects in progress in the technology areas of Physical Mechanical, Electro Optical, Nuclear, Biological and Chemical, and Analytical metrology for the purpose of ensuring measurement accuracy in new emerging technology measurement requirements of Navy weapon systems. Success measures will be articulated through program goals and a balance score card strategy system.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 1857: *Calibration Standards*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	NSWC Corona:Corona, CA	4.181	0.700	Oct 2011	0.115	Jan 2013	0.322	Mar 2014	-		0.322	Continuing	Continuing	Continuing
		Subtotal	4.181	0.700		0.115		0.322		0.000		0.322			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	WR	NSWC Corona:Corona, CA	1.276	0.300	Oct 2011	0.226	Oct 2012	0.200	Dec 2013	-		0.200	0.000	2.002	
Government Engineering Support	WR	NSWC Corona:Corona, CA	2.170	0.308	Oct 2011	1.480	Oct 2012	1.283	Oct 2013	-		1.283	0.000	5.241	
Defense Acquisition Workforce	Various	Various:Various	0.007	0.000		0.000		0.000		-		0.000	0.000	0.007	
Travel	WR	NSWC Corona:Corona, CA	0.064	0.030	Oct 2011	0.035	Oct 2012	0.030	Oct 2013	-		0.030	0.000	0.159	
		Subtotal	3.517	0.638		1.741		1.513		0.000		1.513	0.000	7.409	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	7.698	1.338		1.856		1.835		0.000		1.835			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 1857: *Calibration Standards*

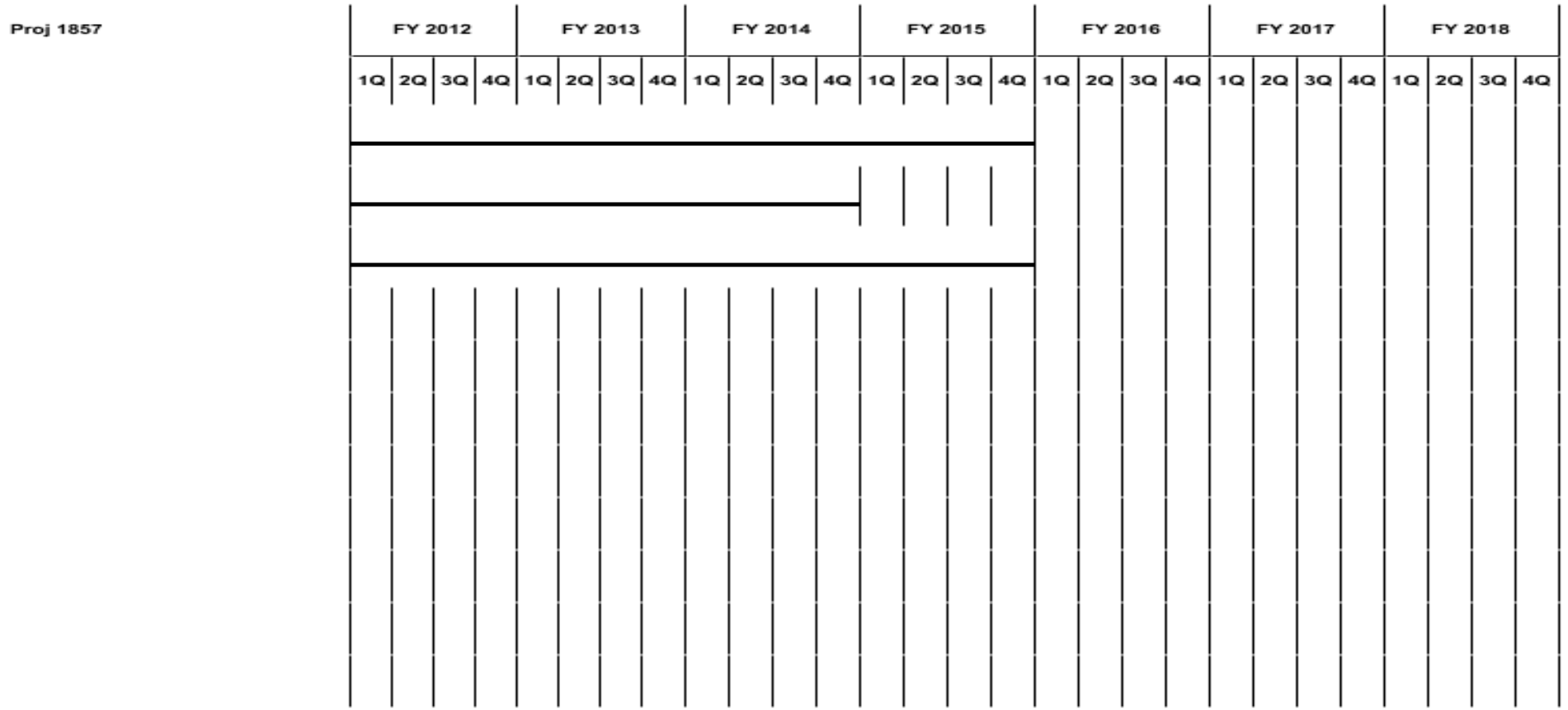


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604215N: *Standards Development*	**PROJECT** 1857: *Calibration Standards*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1857				
Chemical Biological Detection Systems development	1	2012	4	2015
Electro-optical Night Vision Systems and Boresight Calebration Capability	1	2012	4	2014
In-situ Wireless Closed Loop Calibrations development	1	2012	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2311: *Stores Planning and Weaponeering Module*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2311: *Stores Planning and Weaponeering Module*	126.104	11.748	12.508	12.256	-	12.256	12.469	12.564	12.854	13.068	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Project 2311, Stores Planning and Weaponeering Module: The Naval Aircraft Weaponeering Components project, now referred to as the Weaponeering and Stores Planning (WASP) components, are integrated software products that allow aircrew to determine the best combinations of weapons and delivery conditions to achieve the desired level of target damage, eliminate weapon delivery solutions that violate aircraft Type/Model/Series (T/M/S) specific safety-of-flight envelopes, and perform detailed weapons employment planning. WASP is approved by Air Warfare Division (N98) as a flight clearance implementation system for the F/A-18 A, A+, B, C, D, D (RC), E, F; and EA-18G. WASP components will alert pilots if their planned weapon release conditions meet flight clearance limits, will result in bomb-to-bomb collisions, bomb-to-aircraft collisions, aircraft overstress, or excessive risk of aircraft loss/damage in the event of fuze early bursts. Weapon employment planning is fundamental to the Joint Capability Area of Force Application and joint mission areas of Strike and Amphibious Warfare. WASP provides the Navy and Marine Corp with weaponeering capabilities that are critical requirements for Interdiction, Armed Reconnaissance and Close Air Support mission planning. Therefore, WASP product availability is critical to successful employment of the Joint Mission Planning System (JMPS) for the F/A-18 A-F and EA-18G. The WASP product encompasses a multitude of Government Furnished Information software components and tools (aircraft target maneuver simulations, weapon flyout models, target probability of damage calculators). WASP products will require updates as emergent requirements for new aircraft T/M/S, stores and weapons are approved, and new flight clearances and flight restrictions are issued by Naval Air Systems Command Headquarters (NAVAIRSYSCOM).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Product Development	6.405	7.078	6.473
Articles:	0	0	0
Description: Includes associated system engineering design, development, installation, integration and software development for WASP components V3.0, V3.1, V3.1.1, V3.1.2, V3.2, V3.2.1, V3.3, V3.3.1, V4.0 to support F/A-18 A-F; and V3.1 and later to support EA-18G. Naval Air Warfare Center Weapons Division (NAWCWD), Joint Software Support Activity (JSSA) will develop and maintain the AV-8B Weapons and Release Planning (WARP) tool using $0.6M in FY12 and $0.3M in FY13. Define requirements to integrate WASP components into the JMPS. Provide domain engineering support for weapons separation, aircraft loads, flutter, fuzing and safe escape for application to WASP. Provide analysis of new requirements, allocation of requirements, design oversight, and life cycle management of the WASP program. Develop new aircraft configuration, aircraft loading, weapon optimization, store release and delivery planning components for F/A-18 A-F and EA-18G new flight clearances and flight restrictions issued by NAVAIRSYSCOM. Provide configuration management, system administration, quality assurance,			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
documentation, metrics and software risk management for WASP. Acquire, integrate and modify numerous Government Furnished Information (GFI) software components and tools (aircraft target maneuver simulations, weapon flyout models, target probability of damage calculators, etc.) that are used for the WASP software development. Integrate WASP with Joint Standoff Weapon/Joint Direct Attack Munitions/Standoff Land-Attack Missile - Expanded Response and other weapons mission planning systems as required. ***FY 2012 Accomplishments:*** Released V1.2.4 to the fleet 1QFY12. Continued development of V3.0. Provided $0.6M of funding to NAWCWD, JSSA for WARP product development. ***FY 2013 Plans:*** Release V3.0 to the fleet by 1QFY13, and continue development of V3.1. Provide $0.3M of funding to NAWCWD, JSSA for WARP product development. ***FY 2014 Plans:*** Release V3.1 to the fleet by 1QFY14, continue development of V3.2, and begin development of V3.3.			
Title: Test and Evaluation (T&E) ***Articles:*** ***Description:*** Provide test and evaluation for unit and system level testing; functional qualification testing; safety of flight certification testing; integration and standards compliance testing for WASP versions V3.0, V3.1, V3.1.1, V3.1.2, V3.2, V3.2.1, V3.3, V3.3.1, V4.0. Provide Joint Mission Planning System Mission Planning Environment Integration test support. Provide testing and test support to ensure all (to include internally developed software, externally developed GFI) components comply with Department of Navy (DoN) and Department of Defense (DoD) software mandates and directives. These include Integrated Shipboard Network System IT-21, DoD Information Assurance Certification and Accreditation Process, Navy Marine Corps Intranet (NMCI) and DoD Information Technology Portfolio Repository. All Fleet released software must comply with DoN and DoD software directives or will not be allowed to run on ship Local Area Networks or NMCI. ***FY 2012 Accomplishments:*** Completed test and evaluation of WASP V3.0 in order to release to fleet in FY13. Analyzed test requirements for V3.1. ***FY 2013 Plans:*** Complete test and evaluation of WASP V3.1 in order to release to fleet in FY14. Analyze test requirements for V3.2. ***FY 2014 Plans:***	2.172 0	2.516 0	2.552 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604215N: *Standards Development*	**PROJECT** 2311: *Stores Planning and Weaponeering Module*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Complete test and evaluation of WASP V3.2 in order to release to fleet in FY15. Analyze test requirements for V3.3.			
Title: Program Management/Systems Engineering	3.171	2.914	3.231
Articles:	0	0	0
Description: Provide program management and systems engineering support, which includes requirements definition and analysis, compliance with Naval Air Systems Command systems engineering technical review processes, Weaponeering and Stores Planning (WASP) acquisition documentation development and support, cost, schedule and performance management, contracting support (providing contract administration, preparing contract packages for award), compliance with external directives and providing financial support (accept, obligate, commit, and track funding). Provide travel for WASP Government personnel. Continue performing project management support for this program throughout the Future Years Defense Program/Plan.			
FY 2012 Accomplishments: Continued project management and systems engineering support to the WASP for future releases of WASP to the fleet.			
FY 2013 Plans: Continue project management and systems engineering support to the WASP for future releases of WASP to the fleet.			
FY 2014 Plans: Continue project management and systems engineering support to the WASP for future releases of WASP to the fleet.			
Accomplishments/Planned Programs Subtotals	11.748	12.508	12.256

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTE/3858: *Air Force Mission Planning*	63.009	69.377	70.322		70.322	82.164	84.284	84.542	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

Weaponeering and Stores Planning (WASP) products, delivered annually, were developed in-house by NAVAIR consisting of Naval Air Warfare Center Aircraft Division and Naval Air Warfare Center Weapons Division engineers and support contractors. The team has now migrated to a smaller government team that provides functional expertise in aircraft safety-of-flight (air-vehicle stores compatibility, weapons separation, aircraft aerodynamic flutter, ground/flight loads, authorized fuze arm times, aircraft safe escape), guided weapons employment and weapons effects against targets, with the majority of the software development conducted by various contractors. The Government, engineering, test, and support teams (test facilities, functional qualification testing and certification/accreditation test) are supplemented with contractor labor.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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E. Performance Metrics

Average time to plan a flight: Threshold value is < 1 hour average time to plan a flight that includes full aircraft loadout and weapons delivery safe escape planning. Objective value is < 15 minutes average time to plan a flight that includes full aircraft loadout and weapons delivery safe escape planning. End product is a pilot's z-diagram knee board card.

Interoperability: Threshold value is 100% stand alone value.
Objective value is 100% stand alone value.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development (Government Furnished Information, Occupancy (OCC))	WR	Naval Air Warfare Center Aircraft Division NAWCAD:Patuxent River, MD	16.909	0.050	Nov 2011	0.057	Nov 2012	0.030	Nov 2013	-		0.030	Continuing	Continuing	Continuing
Product Development	WR	Air Force Seek Eagle:Eglin Air Force Base, FL	0.074	0.076	Nov 2011	0.079	Nov 2012	0.081	Nov 2013	-		0.081	Continuing	Continuing	Continuing
Primary Software Development	C/CPFF	Lockheed Martin:Marlton, NJ	5.572	1.448	Nov 2011	0.000		0.000		-		0.000	0.000	7.020	7.020
Primary Software Development	C/CPFF	DCS Corp.:Alexandria, VA	0.000	3.660	Apr 2012	5.964	Apr 2013	0.000		-		0.000	0.000	9.624	9.624
Primary Software Development	TBD	TBD:TBD	0.000	0.000		0.000		5.734	Apr 2014	-		5.734	0.000	5.734	5.734
Product Development - Weapons and Release Planning (WARP)	WR	Naval Air Warfare Center Weapons Division NAWCWD:China Lake, CA	0.937	0.631	Nov 2011	0.369	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Software Development	Various	Various:Various	0.000	0.540	Nov 2011	0.609	Nov 2012	0.628	Nov 2013	-		0.628	Continuing	Continuing	Continuing
Prior year Prod Dev cost no longer funded in Future Years Defense Program/ Plan	Various	Various:Various	57.187	0.000		0.000		0.000		-		0.000	0.000	57.187	
		Subtotal	80.679	6.405		7.078		6.473		0.000		6.473			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation Civilian & OCC	WR	NAWCAD:Patuxent River, MD	18.191	0.886	Nov 2011	1.185	Nov 2012	1.156	Nov 2013	-		1.156	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2311: *Stores Planning and Weaponeering Module*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation MANTECH & WYLE	C/CPFF	Various:Various	8.250	1.286	Nov 2011	1.331	Nov 2012	1.396	Nov 2013	-		1.396	0.000	12.263	12.263
Prior Year T&E costs no longer funded in Future Years Defense Program/ Plan (FYDP)	Various	Various:Various	0.377	0.000		0.000		0.000		-		0.000	0.000	0.377	
		Subtotal	26.818	2.172		2.516		2.552		0.000		2.552			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support Tecelote, shared costs, Materials	WR	Naval Air Warfare Center Aircraft Division NAWCAD:Patuxent River, MD	8.608	0.568	Nov 2011	0.416	Nov 2012	0.440	Nov 2013	-		0.440	Continuing	Continuing	Continuing
Government Engineering Support Civilian Sys Eng	WR	NAWCAD:Patuxent River, MD	5.617	0.543	Nov 2011	0.591	Nov 2012	0.593	Nov 2013	-		0.593	Continuing	Continuing	Continuing
Program Management Support Brandes & MANTECH	Various	Various:Various	0.659	0.813	Feb 2012	0.720	Feb 2013	0.743	Feb 2014	-		0.743	0.000	2.935	2.935
Government Engineering Support: Guided Weapons	WR	Naval Air Warfare Center Weapons Division NAWCWD:China Lake, CA	1.115	0.018	Nov 2011	0.000		0.019	Nov 2013	-		0.019	Continuing	Continuing	Continuing
Travel	WR	NAWCAD:Patuxent River, MD	1.261	0.032	Nov 2011	0.030	Nov 2012	0.030	Nov 2013	-		0.030	Continuing	Continuing	Continuing
Systems Engineering Support	Various	Wyle:Huntsville, AL	0.684	1.000	Nov 2011	1.157	Nov 2012	1.197	Nov 2013	-		1.197	0.000	4.038	4.038

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2311: *Stores Planning and Weaponeering Module*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Govt Engineering Support: Mission Planning Environment Integration	WR	NAWCWD:Point Mugu, CA	0.000	0.197	Jan 2012	0.000		0.209	Jan 2014	-		0.209	Continuing	Continuing	Continuing
Prior year Mgmt costs no longer funded in FYDP	Various	Various:Various	0.663	0.000		0.000		0.000		-		0.000	0.000	0.663	
		Subtotal	18.607	3.171		2.914		3.231		0.000		3.231			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	126.104	11.748		12.508		12.256		0.000		12.256			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604215N: *Standards Development*	**PROJECT** 2311: *Stores Planning and Weaponeering Module*

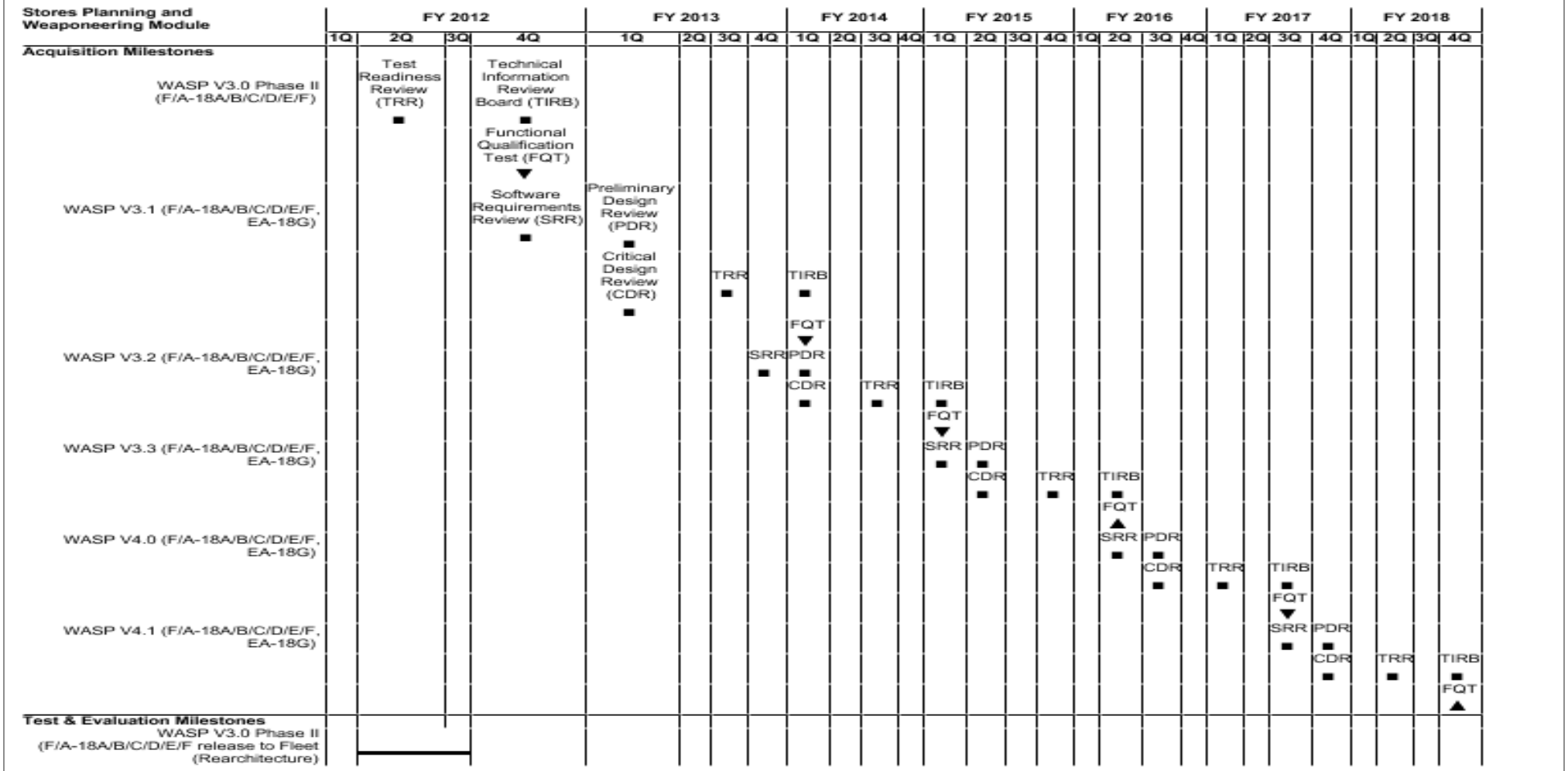
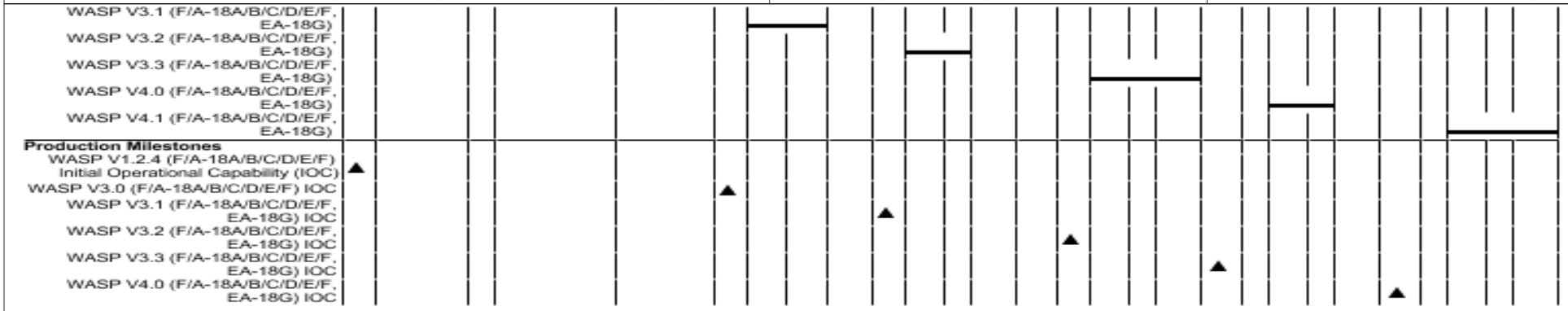


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2311: *Stores Planning and Weaponeering Module*



2014PB - 0604215N - 2311

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604215N: *Standards Development*	**PROJECT** 2311: *Stores Planning and Weaponeering Module*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Stores Planning and Weaponeering Module				
Acquisition Milestones: WASP V3.0 Phase II (F/A-18A/B/C/D/E/F): Test Readiness Review	2	2012	2	2012
Acquisition Milestones: WASP V3.0 Phase II (F/A-18A/B/C/D/E/F): Technical Information Review Board	4	2012	4	2012
Acquisition Milestones: WASP V3.0 Phase II (F/A-18A/B/C/D/E/F): Functional Qualification Test	4	2012	4	2012
Acquisition Milestones: WASP V3.1 (F/A-18A/B/C/D/E/F, EA-18G): Software Requirements Review	4	2012	4	2012
Acquisition Milestones: WASP V3.1 (F/A-18A/B/C/D/E/F, EA-18G): Preliminary Design Review	1	2013	1	2013
Acquisition Milestones: WASP V3.1 (F/A-18A/B/C/D/E/F, EA-18G): Critical Design Review	1	2013	1	2013
Acquisition Milestones: WASP V3.1 (F/A-18A/B/C/D/E/F, EA-18G): Test Readiness Review	3	2013	3	2013
Acquisition Milestones: WASP V3.1 (F/A-18A/B/C/D/E/F, EA-18G): Technical Information Review Board	1	2014	1	2014
Acquisition Milestones: WASP V3.1 (F/A-18A/B/C/D/E/F, EA-18G): Functional Qualification Test	1	2014	1	2014
Acquisition Milestones: WASP V3.2 (F/A-18A/B/C/D/E/F, EA-18G): Software Requirements Review	4	2013	4	2013
Acquisition Milestones: WASP V3.2 (F/A-18A/B/C/D/E/F, EA-18G): Preliminary Design Review	1	2014	1	2014
Acquisition Milestones: WASP V3.2 (F/A-18A/B/C/D/E/F, EA-18G): Critical Design Review	1	2014	1	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2311: *Stores Planning and Weaponeering Module*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Acquisition Milestones: WASP V3.2 (F/A-18A/B/C/D/E/F, EA-18G): Test Readiness Review	3	2014	3	2014
Acquisition Milestones: WASP V3.2 (F/A-18A/B/C/D/E/F, EA-18G): Technical Information Review Board	1	2015	1	2015
Acquisition Milestones: WASP V3.2 (F/A-18A/B/C/D/E/F, EA-18G): Functional Qualification Test	1	2015	1	2015
Acquisition Milestones: WASP V3.3 (F/A-18A/B/C/D/E/F, EA-18G): Software Requirements Review	1	2015	1	2015
Acquisition Milestones: WASP V3.3 (F/A-18A/B/C/D/E/F, EA-18G): Preliminary Design Review	2	2015	2	2015
Acquisition Milestones: WASP V3.3 (F/A-18A/B/C/D/E/F, EA-18G): Critical Design Review	2	2015	2	2015
Acquisition Milestones: WASP V3.3 (F/A-18A/B/C/D/E/F, EA-18G): Test Readiness Review	4	2015	4	2015
Acquisition Milestones: WASP V3.3 (F/A-18A/B/C/D/E/F, EA-18G): Technical Information Review Board	2	2016	2	2016
Acquisition Milestones: WASP V3.3 (F/A-18A/B/C/D/E/F, EA-18G): Functional Qualification Test	2	2016	2	2016
Acquisition Milestones: WASP V4.0 (F/A-18A/B/C/D/E/F, EA-18G): Software Requirements Review	2	2016	2	2016
Acquisition Milestones: WASP V4.0 (F/A-18A/B/C/D/E/F, EA-18G): Preliminary Design Review	3	2016	3	2016
Acquisition Milestones: WASP V4.0 (F/A-18A/B/C/D/E/F, EA-18G): Critical Design Review	3	2016	3	2016
Acquisition Milestones: WASP V4.0 (F/A-18A/B/C/D/E/F, EA-18G): Test Readiness Review	1	2017	1	2017
Acquisition Milestones: WASP V4.0 (F/A-18A/B/C/D/E/F, EA-18G): Technical Information Review Board	3	2017	3	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2311: *Stores Planning and Weaponeering Module*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Acquisition Milestones: WASP V4.0 (F/A-18A/B/C/D/E/F, EA-18G): Functional Qualification Test	3	2017	3	2017
Acquisition Milestones: WASP V4.1 (F/A-18A/B/C/D/E/F, EA-18G): Software Requirements Review	3	2017	3	2017
Acquisition Milestones: WASP V4.1 (F/A-18A/B/C/D/E/F, EA-18G): Preliminary Design Review	4	2017	4	2017
Acquisition Milestones: WASP V4.1 (F/A-18A/B/C/D/E/F, EA-18G): Critical Design Review	4	2017	4	2017
Acquisition Milestones: WASP V4.1 (F/A-18A/B/C/D/E/F, EA-18G): Test Readiness Review	2	2018	2	2018
Acquisition Milestones: WASP V4.1 (F/A-18A/B/C/D/E/F, EA-18G): Technical Information Review Board	4	2018	4	2018
Acquisition Milestones: WASP V4.1 (F/A-18A/B/C/D/E/F, EA-18G): Functional Qualification Test	4	2018	4	2018
Test & Evaluation Milestones: WASP V3.0 Phase II (F/A-18A/B/C/D/E/F release to Fleet (Rearchitecture): Test and Evaluation	2	2012	3	2012
Test & Evaluation Milestones: WASP V3.1 (F/A-18A/B/C/D/E/F, EA-18G): Test and Evaluation	3	2013	4	2013
Test & Evaluation Milestones: WASP V3.2 (F/A-18A/B/C/D/E/F, EA-18G): Test and Evaluation	3	2014	4	2014
Test & Evaluation Milestones: WASP V3.3 (F/A-18A/B/C/D/E/F, EA-18G): Test and Evaluation	4	2015	2	2016
Test & Evaluation Milestones: WASP V4.0 (F/A-18A/B/C/D/E/F, EA-18G): Test and Evaluation	1	2017	2	2017
Test & Evaluation Milestones: WASP V4.1 (F/A-18A/B/C/D/E/F, EA-18G): Test and Evaluation	2	2018	4	2018
Production Milestones: WASP V1.2.4 (F/A-18A/B/C/D/E/F) Initial Operational Capability (IOC):	1	2012	1	2012
Production Milestones: WASP V3.0 (F/A-18A/B/C/D/E/F) IOC:	2	2013	2	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2311: *Stores Planning and Weaponeering Module*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Production Milestones: WASP V3.1 (F/A-18A/B/C/D/E/F, EA-18G) IOC:	2	2014	2	2014
Production Milestones: WASP V3.2 (F/A-18A/B/C/D/E/F, EA-18G) IOC:	3	2015	3	2015
Production Milestones: WASP V3.3 (F/A-18A/B/C/D/E/F, EA-18G) IOC:	3	2016	3	2016
Production Milestones: WASP V4.0 (F/A-18A/B/C/D/E/F, EA-18G) IOC:	4	2017	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2312: *Common Helicopters*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2312: *Common Helicopters*	13.721	0.866	0.879	0.564	-	0.564	0.559	0.580	0.672	0.683	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Automated mission planning systems to date have focused on developing planning capabilities for fixed-wing aircraft, while the unique planning requirements for helicopters have not been fully addressed. The unique and enhanced automated mission planning requirements that must be developed and implemented for helicopters include: data loading, an enhanced route editor (serpentine routing, hover), manipulation of higher fidelity (smaller scale) maps and imagery, enhanced performance tools (performance in and out of ground effect, performance degradation due to atmospheric conditions & elevation), and enhanced fidelity of landing zone, target zone, and threat analyses. The following type/model/series aircraft are supported by this PE: AH-1W/Z, UH-1N/Y, H-46/E, H-53D/E, H-60B/F/H/R/S and V-22. Common helicopter functionality will be developed for implementation in Joint Mission Planning System (JMPS).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Common Helicopters	0.866	0.879	0.564
Articles:	0	0	0
Description: Continue development of Common Helicopter functionality and integration with JMPS Version 1.2.4, 1.3.5, 1.4 and Portable Flight Planning Station (PFPS) Version 3.3.1. ***FY 2012 Accomplishments:*** Developed Common Mission Data Loader (CMDL) and Weapons Employment Zone Overlay Tool (WEZOT) compatibility with Windows 7, FW 1.2, 1.3 and 1.4 to DT. ***FY 2013 Plans:*** Complete CMDL and WEZOT compatibility with Windows 7, FW 1.2, 1.3 and 1.4. ***FY 2014 Plans:*** Develop a Search Pattern Tool and WEZOT functionality to display weapon employment zone overlays for the Advanced Precision Kill Weapons System and Joint Air-to-Ground Missile for JMPS. Develop CMDL and WEZOT to operate with next JMPS FW and 64 bit Operating System.			
Accomplishments/Planned Programs Subtotals	0.866	0.879	0.564

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2312: *Common Helicopters*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTE/3858,5302,5380: *Air Force Mission Planning Systems*	63.009	69.377	70.332		70.332	82.164	84.284	84.542	0.000	Continuing	Continuing
• 0604231N/2213: *Mission Planning*	19.116	25.195	20.059		20.059	37.463	26.211	24.845	22.919	Continuing	Continuing

Remarks

D. Acquisition Strategy

Not Applicable.

E. Performance Metrics

Export Mission Data to Data Transfer Device: Threshold value is < 12 minutes to transfer navigation, communication, weapon system initialization settings and intelligence data.

Interoperability: Threshold value is 100% of top level Information Exchange Requirements designated critical will be satisfied. Objective value is 100% of top level IERs will be satisfied.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604215N: *Standards Development*	PROJECT 2312: *Common Helicopters*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Software Development	C/CPFF	Joint Technology Engineering Inc.:Valparaiso, FL	1.760	0.800	Feb 2012	0.879	Feb 2013	0.564	Feb 2014	-		0.564	Continuing	Continuing	Continuing
Prior year Prod Dev costs no longer funded in FYDP	Various	Various:Various	11.040	0.000		0.000		0.000		-		0.000	0.000	11.040	
		Subtotal	12.800	0.800		0.879		0.564		0.000		0.564			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Eng Integration & Test	WR	NAWCWD:Point Mugu, CA	0.063	0.066	Nov 2011	0.000		0.000		-		0.000	0.000	0.129	
Prior year T&E costs no longer funded in FYDP	Various	Various:Various	0.858	0.000		0.000		0.000		-		0.000	0.000	0.858	
		Subtotal	0.921	0.066		0.000		0.000		0.000		0.000	0.000	0.987	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	13.721	0.866		0.879		0.564		0.000		0.564			

Remarks

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604216N: *Multi-Mssn Helicopter Upgrade Dev*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	1,502.149	16.876	6.866	17.565	-	17.565	10.831	9.992	0.000	0.000	0.000	1,564.279
1707: *MH-60R Development*	1,502.149	16.876	6.866	17.565	-	17.565	10.831	9.992	0.000	0.000	0.000	1,564.279
MDAP/MAIS Code(s): 191												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Advanced Precision Kill Weapon System (APKWS) is a new start in FY 2014.

A. Mission Description and Budget Item Justification

This Program Element includes funding for the development support for the improvements to current systems for the MH-60R. The MH-60R Multi-Mission Helicopter provides battle group protection and adds significant capability in coastal littorals and regional conflicts. The MH-60R represents a significant avionics improvement to the H-60 series helicopters by enhancing primary mission areas of Undersea Warfare and Surface Warfare. Secondary mission areas include Search and Rescue, Vertical Replenishment, Naval Surface Fire Support, logistics support, personnel transport and Medical Evacuation.

FY14 budget request funds APKWS development and government engineering, logistics, and testing for APKWS, the gearbox corrosion upgrade and mission avionics.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	17.654	6.866	3.570	-	3.570
Current President's Budget	16.876	6.866	17.565	-	17.565
Total Adjustments	-0.778	0.000	13.995	-	13.995
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.268	0.000			
• SBIR/STTR Transfer	-0.510	0.000			
• Program Adjustments	0.000	0.000	10.100	-	10.100
• Rate/Misc Adjustments	0.000	0.000	3.895	-	3.895

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604216N: *Multi-Mssn Helicopter Upgrade Dev*

Change Summary Explanation

Technical: The aluminum gearbox development effort has been replaced by upgrading the current magnesium gearbox. Both efforts reduce gearbox corrosion and lower total ownership costs; however, the upgraded magnesium box provides a significant developmental cost savings.

Schedule: APKWS testing efforts commence in FY 2014.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604216N: *Multi-Mssn Helicopter Upgrade Dev*	PROJECT 1707: *MH-60R Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1707: *MH-60R Development*	1,502.149	16.876	6.866	17.565	-	17.565	10.831	9.992	0.000	0.000	0.000	1,564.279
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Advanced Precision Kill Weapon System (APKWS) is a new start in FY 2014.

A. Mission Description and Budget Item Justification

The primary mission areas of the MH-60R include Anti-Submarine Warfare and Surface Warfare. Secondary mission areas include Search and Rescue, Vertical Replenishment, Naval Surface Fire Support, logistics support, personnel transport and Medical Evacuation. The MH-60R provides direct support to the Carrier Strike Group and provides Link Communications Relay via VHF/UHF, Link-16, and Common Data Link (CDL) with the incorporation of Interface Design Specification (Ship Air Upgrade-07-000) full data exchange via CDL. Ku-Band will be provided to DDG-1000, CVN-78 Class and LCS platforms. Aircraft Ship Integrated Secure and Traverse reduces operational requirements aboard ships by eliminating the need for hauldown capability and providing automatic movements for aircraft on deck. The MH-60R is Post-Milestone III; executing Pre-Planned Product Improvements (P3I) to Air Vehicle and Mission systems. P3I includes upgrades to communication, navigation, Identification Friend or Foe (IFF), Multi-Spectral Targeting System/Forward Looking Infrared Radar, Automatic Radar Periscope Detection and Discrimination (ARPDD), weapons, data link, safety, maintenance, airframe and mission planning systems. IFF Mode 5 Interrogator capability is being embedded into the APS-147 Radar to provide positive determination of friendly combatants beyond visual range. The current magnesium gearbox is being upgraded to reduce corrosion and improve total ownership cost. APKWS integration will support Surface Warfare and Maritime Interdiction Operations by providing Forward Firing Weapons, which includes Rockets and Anti-swarm weapons, by addressing the Fast Attack Craft/Fast Inshore Attack Craft Threat.

FY14 budget request funds APKWS development and government engineering, logistics, and testing for APKWS, the gearbox corrosion upgrade and mission avionics.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Avionics H/W and S/W Development	0.700	3.000	12.500
Articles:	0	0	0
Description: Supports aircraft integration, problem investigation and resolution, lab management and upgrades, hardware investigations, and repairs in support of the test program. Provides for Integrated Logistics Support and Program Management Board Support and subvendor support. Avionics hardware and software development and integration to include: P3I, ARPDD, IFF Mode 5 interrogator, and APKWS. ARPDD provides an automated periscope detection, classification, and tracking capability to reliably detect periscopes and masts, and reliably discriminate periscopes from clutter and confusion targets. This capability is			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604216N: *Multi-Mssn Helicopter Upgrade Dev*	PROJECT 1707: *MH-60R Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
suitable for air and surface platforms. The current magnesium gearbox is being upgraded to reduce corrosion and improve total ownership cost. ***FY 2012 Accomplishments:*** Continue Automatic Radar Periscope Detection and Discrimination (ARPDD) System Design Development(SDD), Pre-Planned Product Improvements (P3I) integration testing, Identification Friend or Foe (IFF) Mode 5, and ARPDD integrated testing. ***FY 2013 Plans:*** Commence gearbox corrosion upgrade. ***FY 2014 Plans:*** Commence Advanced Precision Kill Weapon System (APKWS) development.			
Title: Engineering and Logistics ***Articles:*** ***FY 2012 Accomplishments:*** Continue to provide engineering specialists, Integrated Logistics Support, Government Furnished Equipment, Support Equipment, Program Management, Contract Support Services, and travel to support P3I integration testing, Ship Air Upgrade 07-000 testing, ARPDD SDD, and conduct ARPDD integrated testing. ***FY 2013 Plans:*** Continue to provide engineering specialists, Integrated Logistics Support, Government Furnished Equipment, Support Equipment, Program Management, Contract Support Services, and travel to support IFF Mode 5 Inerrogator development, the gearbox corrosion upgrade, and ARPDD testing. ***FY 2014 Plans:*** Continue to provide engineering specialists, Integrated Logistics Support, Government Furnished Equipment, Support Equipment, Program Management, Contract Support Services, and travel to support mission avionics P3I and gearbox corrosion upgrade. Commence APKWS engineering and logistics efforts.	4.391 0	1.031 0	1.605 0
Title: Test and Evaluation ***Articles:*** ***FY 2012 Accomplishments:*** Continue to provide MH-60R Mission Avionics testing, Avionics Mission P3I, and ARPDD testing and evaluation efforts. Continue IFF Mode 5 Interrogator testing and evaluation efforts. ***FY 2013 Plans:***	11.785 0	2.835 0	3.460 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604216N: *Multi-Mssn Helicopter Upgrade Dev*	PROJECT 1707: *MH-60R Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue to provide ARPDD MH-60R Mission Avionics testing and Identification, Friend or Foe Mode 5 Interrogator testing and evaluation efforts. ***FY 2014 Plans:*** Continue to provide MH-60R Mission testing. Commence Advanced Precision Kill Weapon System and gearbox corrosion upgrade test and evaluation efforts.			
Accomplishments/Planned Programs Subtotals	16.876	6.866	17.565

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN-1 BLI:018200: *MH-60R*	948.138	842.762	831.071		831.071	979.280	963.979	81.342	0.000	0.000	11,455.043
• APN-6 BLI:060510: *MH-60R spares*	28.583	0.353	0.540		0.540	0.680	0.697	0.000	0.000	0.000	298.726
• APN-5 BLI:053000: *SH60 Series*	34.403	46.848	66.653		66.653	60.710	59.573	71.779	73.054	Continuing	Continuing

Remarks

D. Acquisition Strategy

Initial Operating Capability (IOC) was achieved in Dec 05 and the Milestone III, Full Rate Production decision occurred in March 2006. As the SH-60B and SH-60F reach the end of their service life, the MH-60R serves as the replacement weapon system. The MH-60R weapon system began fielding in FY2006. The mission systems include Common Cockpit, Airborne Low Frequency Sonor, sonobuoy launcher, Commercial-off-the-Shelf Acoustics Processor, Electronic Support Measure, Mission planning, Multi-Spectral Targeting System / Forward Looking Infrared Radar system, Multi Mission Radar, Automatic Radar Periscope Detection and Discrimination (ARPDD), Common Data Link Hawklink, Integrated Self Defense and weapons capability. Pre-Planned Product Improvement upgrades will be integrated, tested, and fielded to ensure increased capabilities are provided to the fleet user.

E. Performance Metrics

Successfully achieve IOC for the ARPDD upgrade to the MH-60R Multi-Mode Radar. Improve Electronic Support Measure (ESM)Data Load performance prior to next operational deployment and determine if any long term ESM software/hardware fixes are required. Determine solutions to the Automatic Video Tracking lock and Eye-safe Laser Range Finder labeling prior to next operational deployment.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604216N: *Multi-Mssn Helicopter Upgrade Dev*	PROJECT 1707: *MH-60R Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Dev, Airframe (SAC)	SS/FFP	Sikorsky:Stratford, CT	0.000	0.000		2.400	Jun 2013	0.000		-		0.000	0.000	2.400	2.400
Primary Hdw Dev, Avionics (LMSI)	SS/CPFF	Lockheed Martin:Owego, NY	871.890	0.700	Jan 2012	0.600	Apr 2013	0.000		-		0.000	0.000	873.190	873.190
Primary Hdw/SW Dev, Advanced Precision Kill Weapon System (APKWS)	TBD	Lockheed Martin:Owego, NY	0.000	0.000		0.000		5.700	Jun 2014	-		5.700	2.000	7.700	7.700
Primary Hdw Dev. APKWS	TBD	Sikorsky:Stratford, CT	0.000	0.000		0.000		6.800	Jun 2014	-		6.800	4.650	11.450	11.450
Primary Hdw Dev, APKWS	WR	NSWC Crane:Crane, IN	0.000	0.000		0.000		0.000		-		0.000	2.500	2.500	
Prior year Product Dev Cost no longe funded in the FYDP	Various	Various:Various	280.389	0.000		0.000		0.000		-		0.000	0.000	280.389	
		Subtotal	1,152.279	0.700		3.000		12.500		0.000		12.500	9.150	1,177.629	

Remarks

The aluminum gearbox development effort originally planned to start in FY 2012 has been delayed until FY 2013 and replaced by upgrading the current magnesium gearbox. Both efforts reduce gearbox corrosion and lower total ownership costs; however, the upgraded magnesium box provides a significant developmental cost savings.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWC AD:Patuxent River, MD	5.582	4.291	Nov 2011	0.975	Nov 2012	0.809	Nov 2013	-		0.809	1.793	13.450	
Government Eng Spt	WR	NAWC WD:China Lake	0.000	0.000		0.000		0.100	Nov 2013	-		0.100	0.150	0.250	
Government Eng Spt	Various	Various:Various	0.000	0.000		0.000		0.650	Nov 2013	-		0.650	0.600	1.250	
Prior year support cost no longer funded in the FYDP	Various	Various:Various	146.088	0.000		0.000		0.000		-		0.000	0.000	146.088	
		Subtotal	151.670	4.291		0.975		1.559		0.000		1.559	2.543	161.038	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604216N: *Multi-Mssn Helicopter Upgrade Dev*	PROJECT 1707: *MH-60R Development*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWC AD:Patuxent River, MD	135.503	9.831	Nov 2011	2.280	Nov 2012	2.263	Nov 2013	-		2.263	5.400	155.277	
Operation Test & Evaluation	WR	COMOPTEVFOR:Norfolk, VA	12.132	1.954	Nov 2011	0.555	Nov 2012	1.197	Nov 2013	-		1.197	3.650	19.488	
Prior year T&E costs no longer funded in the FYDP	Various	various:various	11.688	0.000		0.000		0.000		-		0.000	0.000	11.688	
		Subtotal	159.323	11.785		2.835		3.460		0.000		3.460	9.050	186.453	

Remarks

FY 2012 and FY 2013 funding increased for Automatic Radar Periscope Detection and Discrimination, mission avionics and Identification, Friend or Foe Mode 5 interrogator testing.

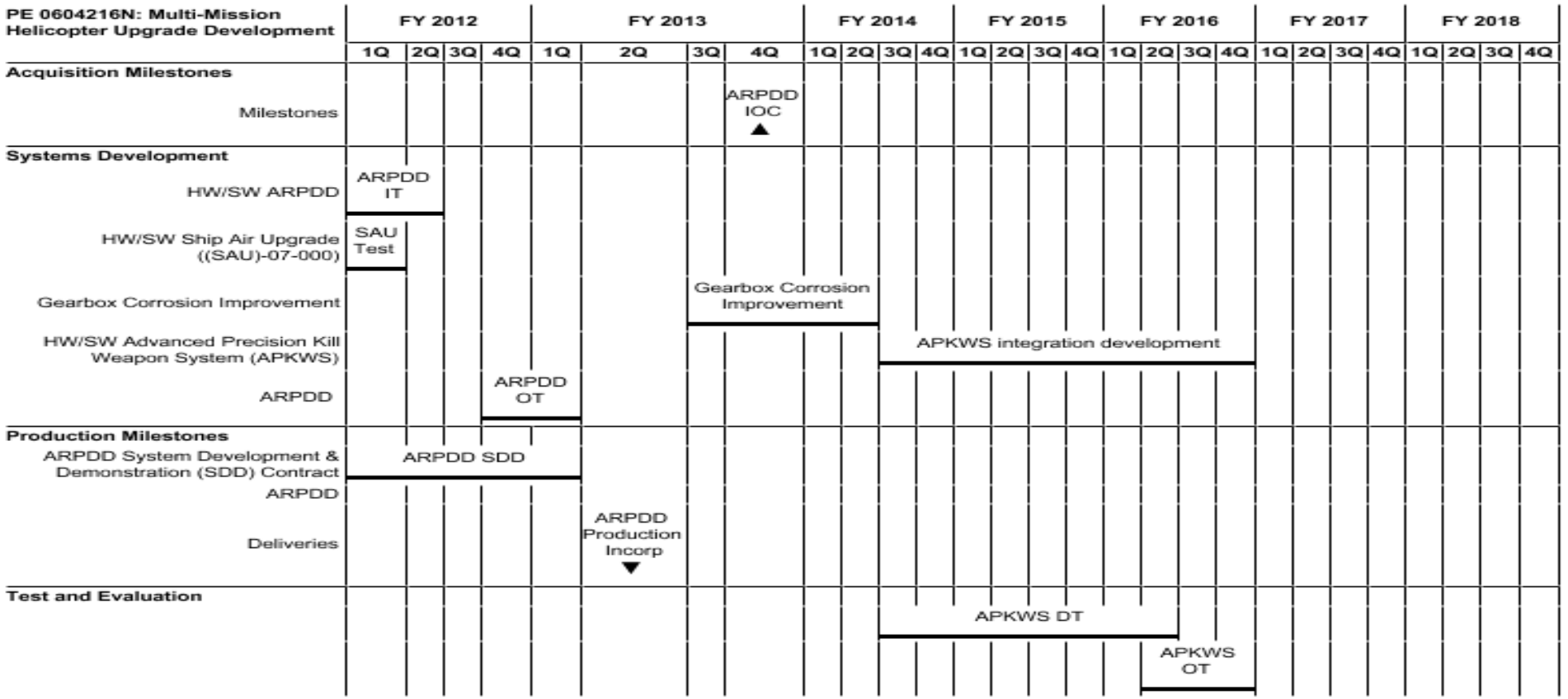
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	NAWC AD:Patuxent River, MD	4.621	0.100	Nov 2011	0.056	Nov 2012	0.046	Nov 2013	-		0.046	0.080	4.903	
Prior year Mangement cost no longer funded in the FYDP	Various	Various:Various	34.256	0.000		0.000		0.000		-		0.000	0.000	34.256	
		Subtotal	38.877	0.100		0.056		0.046		0.000		0.046	0.080	39.159	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,502.149	16.876		6.866		17.565		0.000		17.565	20.823	1,564.279	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604216N: *Multi-Mssn Helicopter Upgrade Dev*	PROJECT 1707: *MH-60R Development*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604216N: *Multi-Mssn Helicopter Upgrade Dev*	**PROJECT** 1707: *MH-60R Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PE 0604216N: Multi-Mission Helicopter Upgrade Development				
Acquisition Milestones: Milestones: Automatic Radar Periscope Detection and Discrimination (ARPDD) IOC	4	2013	4	2013
Systems Development: HW/SW ARPDD: ARPDD Integration Test (IT)	1	2012	2	2012
Systems Development: HW/SW Ship Air Upgrade ((SAU)-07-000): SAU-07-000 Test	1	2012	1	2012
Systems Development: Gearbox Corrosion Improvement: Gearbox Corrosion Improvement	3	2013	2	2014
Systems Development: HW/SW Advanced Precision Kill Weapon System (APKWS): APKWS integration development	3	2014	4	2016
Systems Development: ARPDD: ARPDD OT	4	2012	1	2013
Production Milestones: ARPDD System Development & Demonstration (SDD) Contract: ARPDD SDD contract	1	2012	1	2013
Production Milestones: Deliveries: ARPDD Production Incorporation	2	2013	2	2013
Test and Evaluation: Test & Evaluation: APKWS DT	3	2014	2	2016
Test and Evaluation: Test & Evaluation: APKWS OT	2	2016	4	2016

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	66.148	5.492	4.060	4.026	-	4.026	4.393	4.343	4.436	4.496	Continuing	Continuing
2345: *Fleet METOC Equipment*	48.454	4.143	2.615	2.611	-	2.611	2.880	2.824	2.885	2.926	Continuing	Continuing
2346: *METOC Sensor Engineering*	17.694	1.349	1.445	1.415	-	1.415	1.513	1.519	1.551	1.570	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Air/Ocean Equipment Engineering (AOEE) Program Element provides new capabilities to support naval combat forces. This program engineers and developmentally tests organic and remote sensors, communication interfaces, and processing and display devices. This equipment is engineered to measure, ingest, store, process, distribute and display conditions of the physical environment that are essential to the optimum employment and performance of naval warfare systems. AOEE also engineers capabilities for shipboard and shore-based tactical systems. A major thrust area for the AOEE program is to provide the engineering development of specialized equipment and measurement capabilities that are intended to monitor specific conditions of the physical environment in hostile and remote areas in response to fleet demand signals for increased sensing capability and capacity to support battlespace collections and prediction on short to intermediate time scales. With such capabilities, the war fighters' situational awareness of the operational effects of the physical environment are made more certain.

Major emphasis is on the Meteorological and Oceanographic Future Mission Capabilities (METOC FMC) project.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	5.922	4.060	4.241	-	4.241
Current President's Budget	5.492	4.060	4.026	-	4.026
Total Adjustments	-0.430	0.000	-0.215	-	-0.215
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.037	0.000			
• SBIR/STTR Transfer	-0.393	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.215	-	-0.215

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*

Change Summary Explanation

Technical: The Littoral Battlespace Sensing Unmanned Undersea Vehicles (LBS-UUV) program's primary focus has shifted from the Engineering and Manufacturing Development phase to the Production phase.

Schedule: The schedule for the Littoral Battlespace Sensing Unmanned Undersea Vehicles (LBS-UUV) program is no longer included in this exhibit as the primary focus of the program has shifted from the Engineering and Manufacturing Development phase to the Production phase.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2345: *Fleet METOC Equipment*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2345: *Fleet METOC Equipment*	48.454	4.143	2.615	2.611	-	2.611	2.880	2.824	2.885	2.926	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project provides for the engineering and manufacturing development of sensors, communication interfaces, processing and display meteorological and oceanographic (METOC) equipment. This equipment is designed to provide future mission capabilities for war fighters to measure, ingest, store, process, distribute and display METOC parameters and derived products.

This project also exploits new government off-the-shelf /commercial off-the-shelf technologies, tactical sensors and web enablement for the Navy's computer-based tactical shipboard and shore capability used to predict and assess the operational effects of the physical environment on the performance of platforms, weapons and sensor systems. This project includes development of warfare specific mission planning modules to support unmanned systems with integration of data from environmental and tactical sensor systems, model forecast information and Geospatial Information & Services Databases. This project also supports development of autonomous environmental sensing systems for situational awareness and tactical decision aid/mission planner support, as well as iridium and advanced satellite communication integration in METOC sensor, vehicle control and mission planning systems that will be required to achieve Chief of Naval Operation objectives for information dominance and decision superiority.

Major emphasis areas include the Meteorological and Oceanographic Future Mission Capabilities (METOC FMC) project and the Environmental Satellite Receiver Processor (ESRP) (comprised of AN/SMQ-11 (sea and shore configuration) and AN/FMQ-17 (shore configuration)) program.

FY 2014 request provides for the continued development of advanced software tools for METOC asset allocation, METOC decision support software applications and interfaces to tactical and strategic decision aids along with component and prototype efforts associated with acquiring environmental data, and the development of an end-to-end methodology to collect, fuse, and integrate these data into Navy and DoD networks and command and control nodes, and continue the development to support infrastructure for advanced global and regional prediction systems.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Meteorological and Oceanographic (METOC) Future Mission Capabilities (FMC)	3.130	2.161	2.077
Articles:	0	0	0
FY 2012 Accomplishments: Continued advanced software tools development for METOC asset allocation, METOC decision support software applications and interfaces to tactical and strategic decision aids along with component and prototype efforts associated with acquiring			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2345: *Fleet METOC Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
environmental data. Continued development of an end-to-end methodology to collect, fuse, and integrate these data into Navy and DoD networks and command and control nodes. Began development of support infrastructure for advanced global & regional prediction systems. ***FY 2013 Plans:*** Continue advanced software tools development for Meteorological & Oceanography (METOC) asset allocation, METOC decision support software applications, and interfaces to tactical and strategic decision aids along with component and prototype efforts associated with acquiring environmental data. Continue development of an end-to-end methodology to collect, fuse, and integrate these data into Navy and DoD networks and command & control nodes. Continue development of support infrastructure for advanced global & regional METOC prediction systems. ***FY 2014 Plans:*** Continue advanced software tools development for METOC asset allocation, METOC decision support software applications, and interfaces to tactical and strategic decision aids along with component and prototype efforts associated with acquiring environmental data. Continue development of an end-to-end methodology to collect, fuse, and integrate these data into Navy and DoD networks and command & control nodes. Continue development of support infrastructure for advanced global & regional METOC prediction systems. Develop Through-the-sensor (TTS) technologies and alternative sampling strategies for oceanographic characterization.			
Title: Littoral Battlespace Sensors - Unmanned Undersea Vehicle (LBS-UUV) ***Articles:*** ***FY 2012 Accomplishments:*** Continued to correct deficiencies on Littoral Battlespace Sensors ocean Gliders (LBS-G) systems via Engineering Change Proposals (ECPs) as appropriate. Delivered prototype Littoral Battlespace Sensors Autonomous Undersea Vehicles (LBS-AUV) systems. Completed LBS-AUV Developmental Test and Evaluation (DT&E). Completed LBS-AUV Engineering Development Model (EMD) phase and obtained Milestone C. Corrected LBS-AUV software and hardware design deficiencies identified during DT&E. ***FY 2013 Plans:*** Conduct LBS-G and LBS-AUV engineering design studies as required. Develop system upgrades via ECPs, and correct any identified software and/or hardware deficiencies as required. ***FY 2014 Plans:*** Conduct LBS-G and LBS-AUV engineering design studies as required. Develop system upgrades via ECPs, and correct any identified software and/or hardware deficiencies as required.	0.737 2	0.168 0	0.232 0
Title: Environmental Satellite Receiver Processor (ESRP)	0.276	0.286	0.302

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2345: *Fleet METOC Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:	0	0	0
FY 2012 Accomplishments: Developed and tested annual hardware and software updates to integrate new Meteorological & Oceanography (METOC) Satellite Sensors of Opportunity available in the Geostationary Operational Environmental Satellite System (GOES) and the Polar Orbiting Environmental Satellite System (POES). Continued integration of Environmental Satellite Receiver Processor (ESRP) systems in support of Joint Polar Orbiting Satellite System (JPSS).			
FY 2013 Plans: Continue to develop and test annual hardware and software upgrades to integrate new METOC Satellite Sensors available in the GOES and the POES. Continue integration of ESRP systems in support of JPSS. Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion.			
FY 2014 Plans: Continue to develop and test annual hardware and software upgrades to integrate new METOC Satellite Sensors available in the GOES and the POES. Continue integration of ESRP systems in support of JPSS. Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion.			
Accomplishments/Planned Programs Subtotals	4.143	2.615	2.611

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/4226: *Meteorological Equipment*	30.278	18.339	19.118		19.118	19.107	20.297	19.429	21.303	Continuing	Continuing
• RDTEN/0603207N/2341: *METOC Data Acquisition*	5.921	6.702	6.336		6.336	6.909	6.838	6.990	7.087	Continuing	Continuing
• RDTEN/0603207N/2342: *METOC Data Assimilation and MOD*	10.295	11.127	10.250		10.250	10.890	10.816	11.036	11.170	Continuing	Continuing
• RDTEN/0604218N/2346: *METOC Sensor Engineering*	1.349	1.445	1.415		1.415	1.513	1.519	1.551	1.570	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acquisition, management and contracting strategies are to support engineering and manufacturing development by providing funds to Naval Research Laboratories and miscellaneous contractors, with management oversight by the Program Executive Officer for Command, Control, Communications, Computers and Intelligence.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2345: *Fleet METOC Equipment*

E. Performance Metrics

Goal: Develop and engineer equipment to acquire meteorological and oceanographic (METOC) data in order to improve the accuracy of global and regional scale meteorological and oceanographic forecast models.

Metric: Tasks will address no less than 75% of applicable capability gaps and requirements, as identified by Resource and Requirements Sponsor(s). As tasks relate to exploitation of fleet sensors for METOC data (Through-the-Sensor), no less than 80% of approved initiatives will have a cost, schedule, performance and transition risk analysis completed within the past 12 months.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2345: *Fleet METOC Equipment*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
METOC Future Mission Capabilities	WR	Naval Research Laboratory:Washington, DC	16.075	2.530	Oct 2011	1.729	Oct 2012	1.625	Oct 2013	-		1.625	Continuing	Continuing	Continuing
METOC Future Mission Capabilities	WR	SPAWAR System Centers:California, South Carolina	7.521	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
METOC Future Mission Capabilities	C/CPFF	RAYTHEON:Massachusetts	2.559	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
METOC Future Mission Capabilities	Various	Various:Various	18.623	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
METOC Future Mission Capabilities	C/CPFF	University of WA:Washington	0.250	0.250	Apr 2012	0.112	Dec 2012	0.117	Dec 2013	-		0.117	Continuing	Continuing	Continuing
Littoral Battlespace Sensing - Gliders	C/CPIF	Teledyne Brown Engineering:Alabama	0.200	0.075	Aug 2012	0.085	Mar 2013	0.117	Mar 2014	-		0.117	Continuing	Continuing	Continuing
METOC Future Mission Capabilities	C/FP	SAIC:Virgina	0.350	0.350	Dec 2011	0.320	Nov 2012	0.335	Nov 2013	-		0.335	Continuing	Continuing	Continuing
Littoral Battlespace Sensing - Autonomous Undersea Vehicle	C/FP	Hydroide:Pocasset, MA	0.000	0.395	Jul 2012	0.083	Jun 2013	0.115	Jun 2014	-		0.115	0.000	0.593	
METOC ESRP	C/CPFF	RAYTHEON:Indianapolis	0.000	0.276	Dec 2011	0.286	Dec 2012	0.302	Dec 2013	-		0.302	0.000	0.864	
		Subtotal	45.578	3.876		2.615		2.611		0.000		2.611			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
METOC Future Mission Capabilities	C/CPFF	SSA/CSC:MISC	1.312	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Littoral Battlespace Sensing - Autonomous Undersea Vehicle	C/FP	SAIC:Virgina	0.350	0.267	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2345: *Fleet METOC Equipment*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Littoral Battlespace Sensing - Autonomous Undersea Vehicle	C/FP	SPAWAR System Centers:San Diego, CA	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	
		Subtotal	1.812	0.267		0.000		0.000		0.000		0.000			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	WR	OPTEVFOR:Virginia	0.424	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Littoral Battlespace Sensing - Unmanned Undersea Vehicle	WR	NSWC Carderock:Maryland	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	
METMF R NEXGEN	C/FP	Smiths Detection:Rhode Island	0.090	0.000		0.000		0.000		-		0.000	0.000	0.090	
		Subtotal	0.664	0.000		0.000		0.000		0.000		0.000			

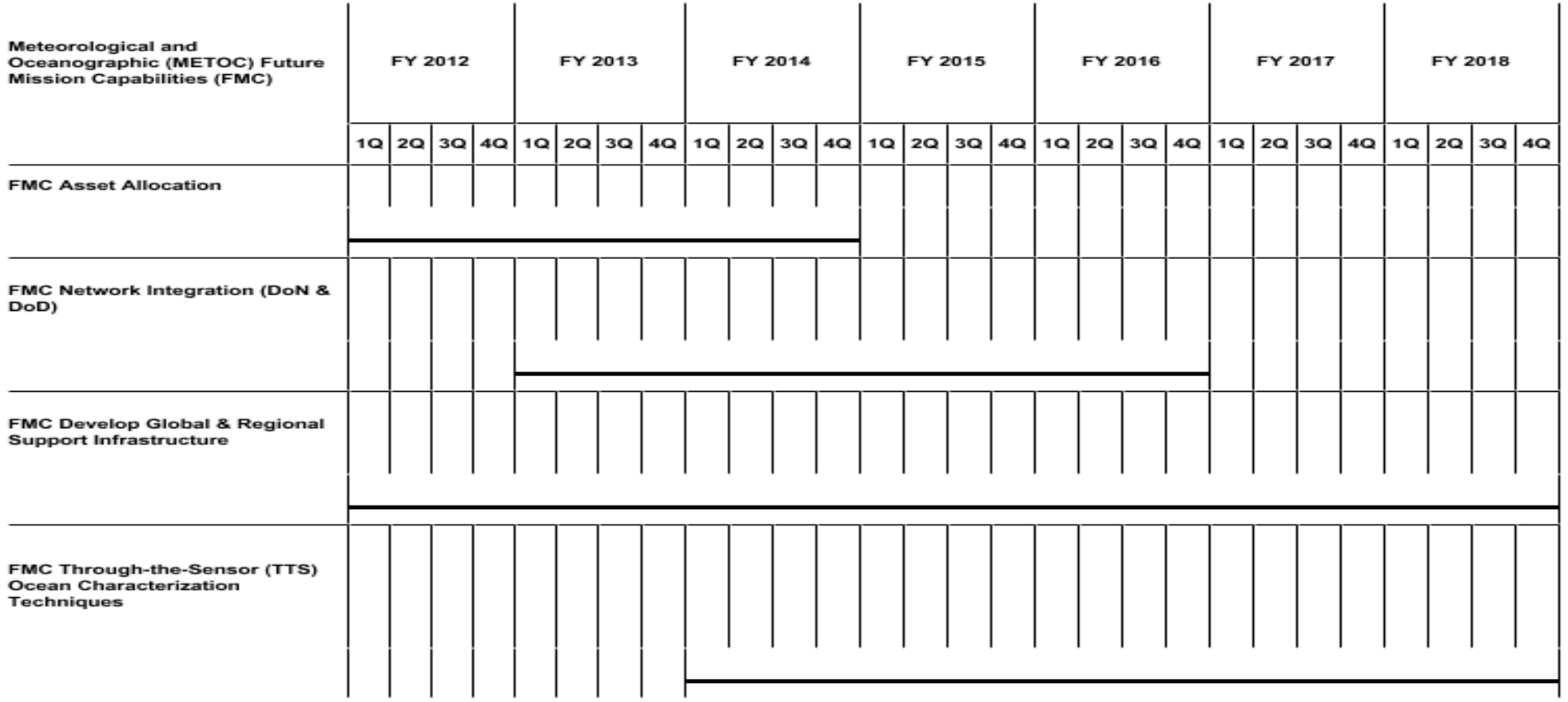
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	C/CPFF	SAIC:Virginia	0.400	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	0.400	0.000		0.000		0.000		0.000		0.000			

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	48.454	4.143		2.615		2.611		0.000		2.611			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2345: *Fleet METOC Equipment*



2014DON - 0604218N - 2345

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604218N: *Air/Ocean Equipment Engineering*	**PROJECT** 2345: *Fleet METOC Equipment*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Meteorological and Oceanographic (METOC) Future Mission Capabilities (FMC)				
FMC Asset Allocation:	1	2012	4	2014
FMC Network Integration (DoN & DoD):	1	2013	4	2016
FMC Develop Global & Regional Support Infrastructure:	1	2012	4	2018
FMC Through-the-Sensor (TTS) Ocean Characterization Techniques:	1	2014	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2346: *METOC Sensor Engineering*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2346: *METOC Sensor Engineering*	17.694	1.349	1.445	1.415	-	1.415	1.513	1.519	1.551	1.570	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project provides for the engineering and manufacturing development of specialized, high resolution instrumentation systems and measurement capabilities for obtaining near real-time, in-situ meteorological and oceanographic (METOC) data in hostile, remote, and denied areas. The project's objectives are to engineer near-term future mission sensing capabilities that are intended to survive the harsh littoral and deep-strike environments and also to meet demanding requirements for timeliness and accuracy. Engineering is performed within this project to ensure that air and safety certification for deployment from fleet aircraft or ships is met and that the proper data formats are engineered for electronic communications transmissions, human interface displays, and inputs to predictive models.

The major area of emphasis is the METOC Future Mission Capabilities (FMC) project.

FY 2014 request provides for the continued development of advanced sensor system support hardware and software technologies for sensor deployment, data processing and performance metrics to optimize sensor performance and assess the viability of sensors and subsystems on unmanned and manned aircraft systems and autonomous undersea platforms for collection of automated METOC data and information.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Meteorological and Oceanographic (METOC) Future Mission Capabilities (FMC)	1.349	1.445	1.415
Articles:	0	0	0
FY 2012 Accomplishments: Continued system development and demonstration of METOC manned, unmanned and automated sensors (to include integration of environmental sensors into a larger environmental sensing strategy). Continued the development of advanced sensor system support technologies and techniques for sensor deployment, data processing and analysis to include performance metrics to optimize sensor performance. Developed infrastructure to acquire, process and distribute METOC data and products.			
FY 2013 Plans: Continue system development and demonstration of METOC manned, unmanned and automated sensors (to include integration of environmental sensors into a larger environmental sensing strategy). Continue the development of advanced sensor system support technologies and techniques for sensor deployment, data processing and analysis to include performance metrics to			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2346: *METOC Sensor Engineering*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
optimize sensor performance. Assess viability of sensors and subsystem sensors on unmanned and manned aircraft systems and autonomous undersea systems for collection of automated METOC data. Continue to develop infrastructure to acquire, process and distribute METOC data and products. ***FY 2014 Plans:*** Continue system development and demonstration of METOC manned, unmanned and automated sensors (to include integration of environmental sensors into a larger environmental sensing strategy). Continue the development of advanced sensor system support technologies and techniques for sensor deployment, data processing and analysis to include performance metrics to optimize sensor performance. Assess viability of sensors and subsystem sensors on unmanned and manned aircraft systems and autonomous undersea systems for collection of automated METOC data. Continue to develop infrastructure to acquire, process and distribute METOC data and products.			
Accomplishments/Planned Programs Subtotals	1.349	1.445	1.415

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTEN/0603207N/2341: *METOC DATA ACQUISITION*	5.921	6.702	6.336		6.336	6.909	6.838	6.990	7.087	Continuing	Continuing
• RDTEN/0603207N/2342: *METOC DATA ASSIMILATION AND MOD*	10.295	11.127	10.250		10.250	10.890	10.816	11.036	11.170	Continuing	Continuing
• RDTEN/0604218N/2345: *FLEET METOC EQUIPMENT*	4.143	2.615	2.611		2.611	2.880	2.824	2.885	2.926	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acquisition and contracting strategies are to support engineering and manufacturing development of specialized, high resolution instrumentation systems and measurement techniques for obtaining near real-time in-situ meteorological and oceanographic (METOC) data in denied or remote areas by providing funds to miscellaneous performers.

E. Performance Metrics

Goal: Develop and engineer unique sensors to acquire METOC data in order to improve the accuracy of global and regional scale meteorological and oceanographic forecast models.

Metric: Tasks will address no less than 75% of applicable capability gaps and requirements, as identified by Resource Sponsor and Type Commander(s). No less than 75% of sensor engineering initiatives will be informed by an Analysis of Alternatives or market study to assess the state of the technology.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2346: *METOC Sensor Engineering*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	WR	Naval Research Laboratory:Washington, DC	5.936	1.349	Oct 2011	1.445	Nov 2012	1.415	Nov 2013	-		1.415	Continuing	Continuing	Continuing
Product Development	Various	MISC:MISC	11.750	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	17.686	1.349		1.445		1.415		0.000		1.415			

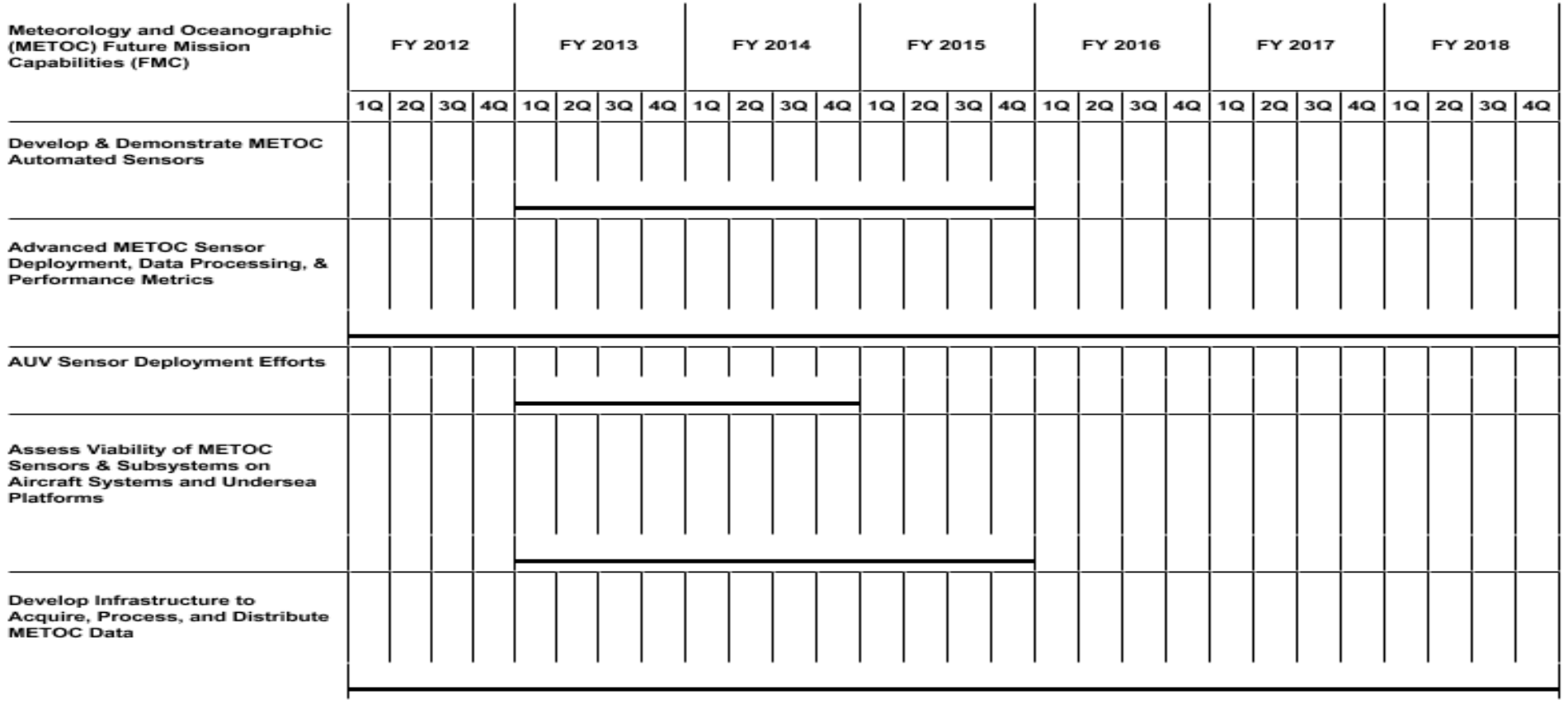
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Workforce	C/CPFF	Not Specified:Not Specified	0.008	0.000		0.000		0.000		-		0.000	0.000	0.008	0.008
		Subtotal	0.008	0.000		0.000		0.000		0.000		0.000	0.000	0.008	0.008

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	17.694	1.349		1.445		1.415		0.000		1.415			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2346: *METOC Sensor Engineering*



2014DON - 0604218N - 2346

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604218N: *Air/Ocean Equipment Engineering*	PROJECT 2346: *METOC Sensor Engineering*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Meteorology and Oceanographic (METOC) Future Mission Capabilities (FMC)				
Develop & Demonstrate METOC Automated Sensors:	1	2013	4	2015
Advanced METOC Sensor Deployment, Data Processing, & Performance Metrics:	1	2012	4	2018
AUV Sensor Deployment Efforts:	1	2013	4	2014
Assess Viability of METOC Sensors & Subsystems on Aircraft Systems and Undersea Platforms:	1	2013	4	2015
Develop Infrastructure to Acquire, Process, and Distribute METOC Data:	1	2012	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	46.539	3.294	3.451	1.791	-	1.791	1.810	1.860	1.972	2.005	Continuing	Continuing
1152: *P-3 Sensor Integration*	32.742	1.306	1.377	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	35.425
3016: *Fatigue Life Mgmt Program*	13.797	1.988	2.074	1.791	-	1.791	1.810	1.860	1.972	2.005	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program provides for P-3C aircraft systems development and test in subsurface and surface surveillance, search, detection, localization, classification, attack and communications in support of Sea Shield/Sea Power 21. The P-3C Sensor Integration project integrates advanced and future Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASuW) sensors, weapons systems, and supporting technology into legacy P-3C systems and phased capabilities upgrades. The program also advances Air Acoustic Rapid Cots Insertion (ARCI) efforts by replacing legacy MIL-SPEC UYS-1 with increasingly open, Commercial Off The Shelf-based architecture. Also, P-3 Sensor Integration will expand software and hardware technology of P-3 systems to integrate additional sensor and processing capabilities, environmental prediction tools, tactical decision aides, color capabilities and communications to improve aircrew tactical proficiency and battlespace awareness. Sensor Integration is a continuous effort to integrate and test newly evolving ASW and ASuW technologies such as Improved Extended Echo Ranging and Multistatic Acoustic Coherent family of Multi-Static active systems, ARCI, Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements. The Over the Horizon (OTH) Wideband system will provide the P-3C ASuW Improvement Program aircraft the capability to conduct OTH Satellite communications which will allow the on-station aircraft to transmit real-time sensitive acoustic intelligence data which will maximize enemy detections, tracking and engagement opportunities.

Fatigue Life Management Program is required to manage P-3/EP-3 inventory fatigue life and includes ongoing structural analysis, analyzing emergent structural issues, conducting engineering studies, assessing Fleet impact, and applying new technologies such as Non-Destructive Inspection techniques.

This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	3.417	3.451	3.111	-	3.111
Current President's Budget	3.294	3.451	1.791	-	1.791
Total Adjustments	-0.123	0.000	-1.320	-	-1.320
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.025	0.000			
• SBIR/STTR Transfer	-0.098	0.000			
• Program Adjustments	0.000	0.000	-1.316	-	-1.316
• Rate/Misc Adjustments	0.000	0.000	-0.004	-	-0.004

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*	PROJECT 1152: *P-3 Sensor Integration*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1152: *P-3 Sensor Integration*	32.742	1.306	1.377	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	35.425
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program provides for P-3C aircraft systems development and test in subsurface and surface surveillance, search, detection, localization, classification, attack and communications in support of Sea Shield/Sea Power 21.

The P-3C Sensor Integration project integrates advanced and future Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASuW) sensors, weapons systems, and supporting technology into legacy P-3C systems and phased capabilities upgrades. The program also advances Air Acoustic Rapid Cots Insertion (ARCI) efforts by replacing legacy MIL-SPEC UYS-1 with increasingly open, Commercial Off The Shelf-based architecture. Also, P-3 Sensor Integration will expand software and hardware technology of P-3 systems to integrate additional sensor and processing capabilities, environmental prediction tools, tactical decision aides, color capabilities and communications to improve aircrew tactical proficiency and battlespace awareness.

Sensor Integration is a continuous effort to integrate and test newly evolving ASW and ASuW technologies such as Improved Extended Echo Ranging (IEER) and Multistatic Acoustic Coherent (MAC) family of Multi-Static active systems, ARCI, Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements. The Over the Horizon (OTH) Wideband system will provide the P-3C AIP aircraft the capability to conduct OTH Satellite communications which will allow the on-station aircraft to transmit real time sensitive acoustic intelligence data which will maximize enemy detections, tracking and engagement opportunities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: P-3 integration of ASW and ASuW sensors / weapon systems	1.306	1.377	0.000
Articles:	0	0	
FY 2012 Accomplishments: Continue Sensor Integration effort to integrate and test newly evolving ASW and ASuW technologies such as IEER and MAC family of Multi-Static active systems, ARCI, Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*	PROJECT 1152: *P-3 Sensor Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue Sensor Integration effort to integrate and test newly evolving Anti-Submarine Warfare and ASuW technologies such as IEER and Multistatic Acoustic Coherent family of Multi-Static active systems, Air Acoustic Rapid Cots Insertion, Non-acoustic ASW sensors and systems, and future Technical Refresh insertions for obsolescence and processing improvements.			
Accomplishments/Planned Programs Subtotals	1.306	1.377	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0538: *P-3 Series*	170.354	148.405	37.436		37.436	5.706	6.052	3.332	3.325	0.000	4,973.026

Remarks

D. Acquisition Strategy

The Air Deployable Active Receiver/Improved Extended Echo Ranging Operational Requirements Document (ORD) (Ser# 297(1)-05-97)) for 1152 was approved on 29 December 1997. The P-3 Anti-Surface Warfare Improvement Program ORD (Ser#355-88-94) for 2417 was approved on 30 March 1994. The Acquisition Plan (AIR-93-08A Rev 2) was approved on 30 March 1998. The Acquisition Strategy Review (AIR-ASR-26A Rev 3) was approved 29 Nov 1999 which includes Over the Horizon Wideband system.

E. Performance Metrics

Successfully complete Developmental Test.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*	PROJECT 1152: *P-3 Sensor Integration*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Years Prod Dev costs no longer funded in FYDP	Various	Various:Various	20.216	0.000		0.000		0.000		-		0.000	0.000	20.216	
		Subtotal	20.216	0.000		0.000		0.000		0.000		0.000	0.000	20.216	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year Support costs no longer funded in FYDP	Various	Various:Various	4.340	0.000		0.000		0.000		-		0.000	0.000	4.340	
		Subtotal	4.340	0.000		0.000		0.000		0.000		0.000	0.000	4.340	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year T&E costs no longer funded in FYDP	Various	Various:Various	2.438	0.000		0.000		0.000		-		0.000	0.000	2.438	
		Subtotal	2.438	0.000		0.000		0.000		0.000		0.000	0.000	2.438	

Management Services ($ in Millions)

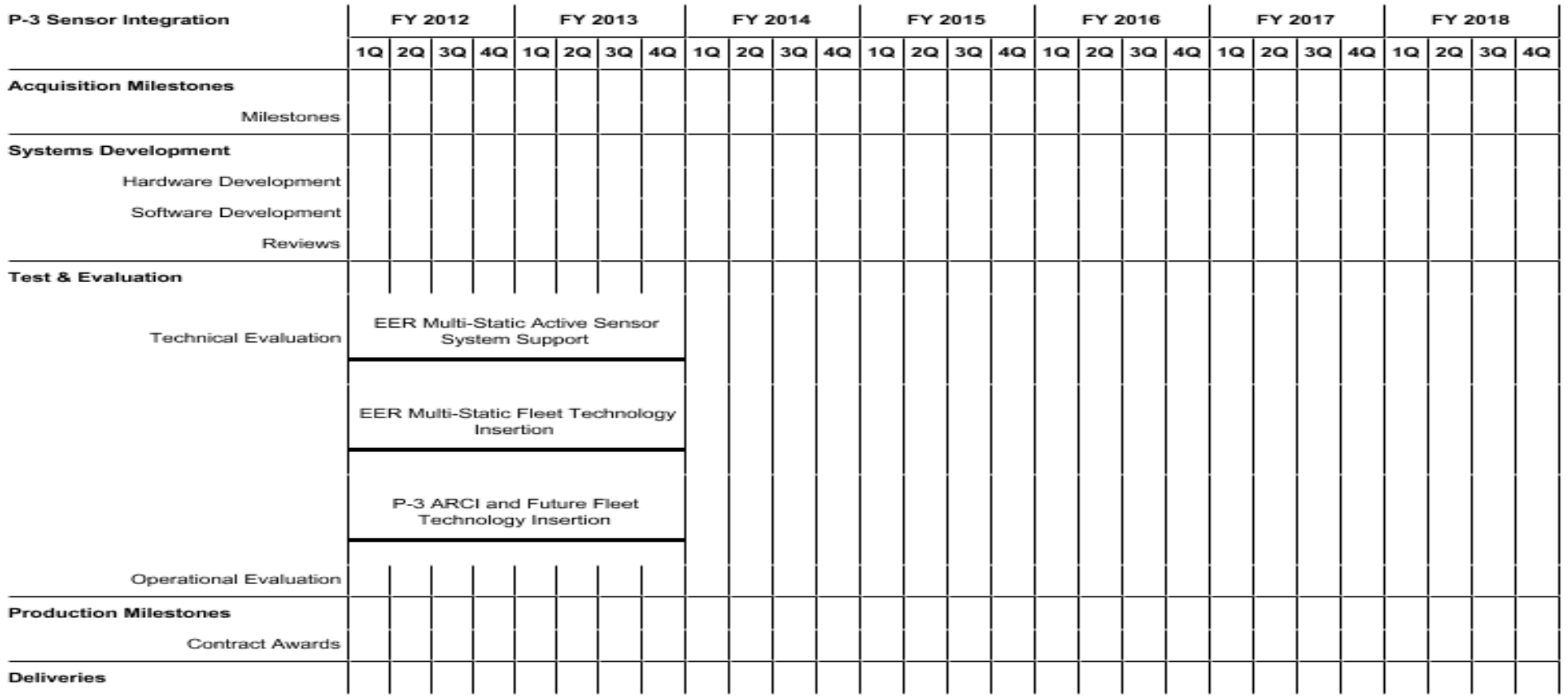
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD:Pax River, MD	4.454	1.206	Nov 2011	1.314	Nov 2012	0.000		-		0.000	0.000	6.974	
Travel	WR	NAWCAD:Pax River, MD	1.031	0.100	Oct 2011	0.063	Oct 2012	0.000		-		0.000	0.000	1.194	
Prior Year Mgmt costs no longer funded in FYDP	Various	Various:Various	0.263	0.000		0.000		0.000		-		0.000	0.000	0.263	
		Subtotal	5.748	1.306		1.377		0.000		0.000		0.000	0.000	8.431	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*	PROJECT 1152: *P-3 Sensor Integration*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	32.742	1.306		1.377		0.000		0.000		0.000	0.000	35.425	

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2014 Navy		**DATE:** April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604221N: *P-3 Modernization Program*	**PROJECT** 1152: *P-3 Sensor Integration*



2014DON - 0604221N - 1152

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*	PROJECT 1152: *P-3 Sensor Integration*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
P-3 Sensor Integration				
Test & Evaluation: Technical Evaluation: EER Multi-Static Active Sensor System Support	1	2012	4	2013
Test & Evaluation: Technical Evaluation: EER Multi-Static Fleet Technology Insertion	1	2012	4	2013
Test & Evaluation: Technical Evaluation: P-3 ARCI and Future Fleet Technology Insertion	1	2012	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*	PROJECT 3016: *Fatigue Life Mgmt Program*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3016: *Fatigue Life Mgmt Program*	13.797	1.988	2.074	1.791	-	1.791	1.810	1.860	1.972	2.005	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Fatigue Life Management Program is required to manage P-3/EP-3 inventory fatigue life and includes ongoing structural analysis, analyzing emergent structural issues, conducting engineering studies, assessing Fleet impact, and applying new technologies such as Non-Destructive Inspection techniques.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: P-3/EP-3 Fatigue Life Management	1.988	2.074	1.791
Articles:	0	0	0
FY 2012 Accomplishments: Fatigue Life Management Program: Manage P-3/EP-3 inventory fatigue life including conducting structural analysis, analyzing structural issues, conducting engineering studies, assessing Fleet impact. Research, test and apply new Fatigue Inspection techniques to the P-3/EP-3 Fleet.			
FY 2013 Plans: Fatigue Life Management Program: Manage P-3/EP-3 inventory fatigue life including conducting structural analysis, analyzing structural issues, conducting engineering studies, assessing Fleet impact. Research, test and apply new Fatigue Inspection techniques to the P-3/EP-3 Fleet.			
FY 2014 Plans: Fatigue Life Management Program: Manage P-3/EP-3 inventory fatigue life including conducting structural analysis, analyzing structural issues, conducting engineering studies, assessing Fleet impact. Research, test and apply new Fatigue Inspection techniques to the P-3/EP-3 Fleet.			
Accomplishments/Planned Programs Subtotals	1.988	2.074	1.791

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0538: *P-3 Series*	170.354	148.405	37.436		37.436	5.706	6.052	3.332	3.325	0.000	4,973.026

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*	PROJECT 3016: *Fatigue Life Mgmt Program*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

The Fatigue Life Management Program leverages off of prior work done under P-3 Service Life Extension Program (2451). The Anti-Surface Warfare Improvement Program Operational Requirements Documents 355-88-94 was approved 30 March 94. Work will be performed by Lockheed Martin Aeronautical Systems and other industry participants along with the Naval Air Systems Command Structural Engineering Dept, AIR-4.3. This program supports the 7 June 2003 CNO approved P-3/ EP-3 Sustainment Bridge to Multi-Mission Maritime Aircraft.

E. Performance Metrics

Successful application of system engineering processes.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*	PROJECT 3016: *Fatigue Life Mgmt Program*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	C/CPIF	LM:Marietta, GA	7.363	1.009	Jan 2012	1.131	Jan 2013	1.032	Jan 2014	-		1.032	4.400	14.935	14.935
		Subtotal	7.363	1.009		1.131		1.032		0.000		1.032	4.400	14.935	14.935

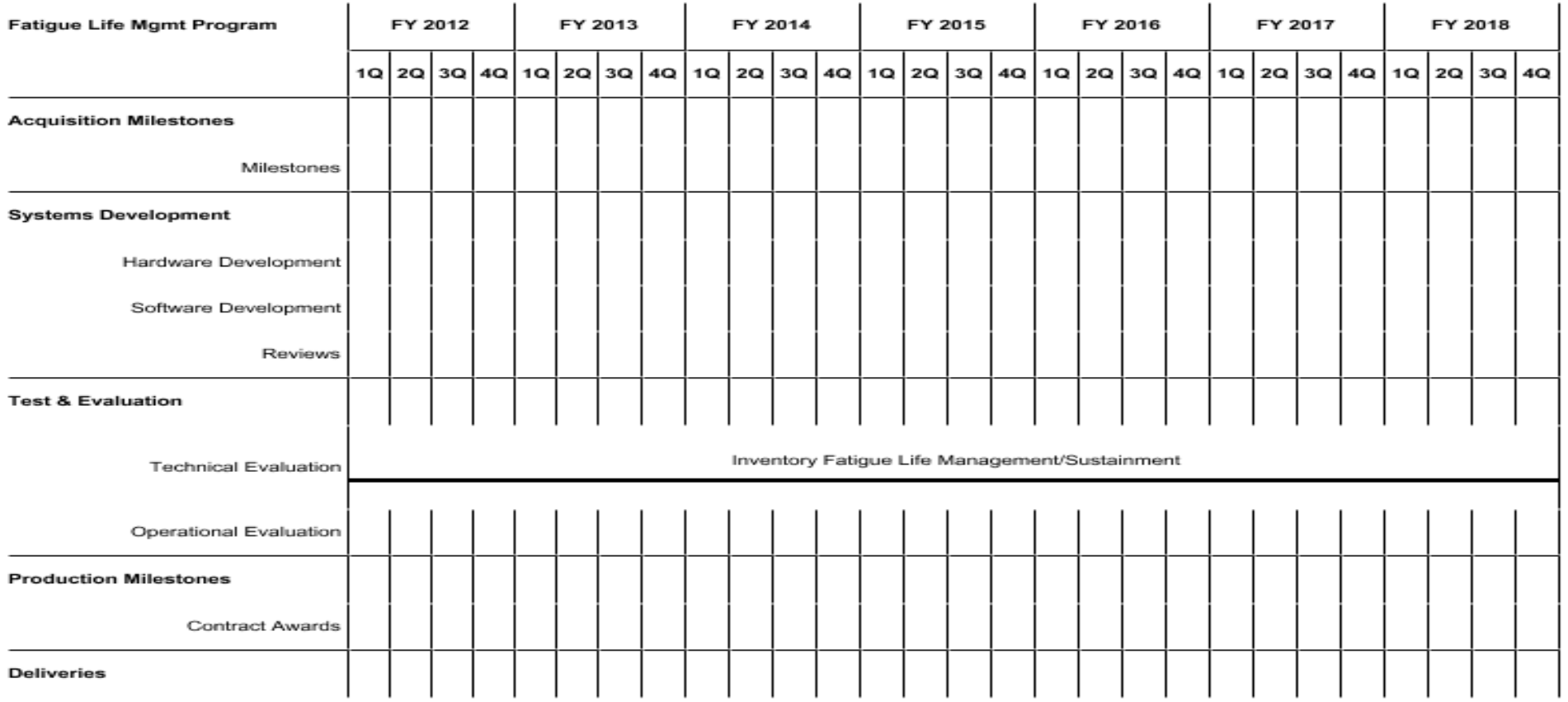
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD:PAX RIVER, MD	5.497	0.895	Nov 2011	0.861	Nov 2012	0.716	Nov 2013	-		0.716	2.955	10.924	
Travel	WR	NAWCAD:PAX RIVER, MD	0.667	0.084	Oct 2011	0.082	Oct 2012	0.043	Oct 2013	-		0.043	Continuing	Continuing	Continuing
Prior Year costs no longer funded in FYDP	Various	Various:Various	0.270	0.000		0.000		0.000		-		0.000	0.000	0.270	
		Subtotal	6.434	0.979		0.943		0.759		0.000		0.759			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	13.797	1.988		2.074		1.791		0.000		1.791			

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2014 Navy		**DATE:** April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604221N: *P-3 Modernization Program*	**PROJECT** 3016: *Fatigue Life Mgmt Program*



2014DON - 0604221N - 3016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604221N: *P-3 Modernization Program*	PROJECT 3016: *Fatigue Life Mgmt Program*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Fatigue Life Mgmt Program				
Test & Evaluation: Technical Evaluation: Inventory Fatigue Life Management/ Sustainment	1	2012	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	26.693	9.761	13.071	11.725	-	11.725	10.611	10.410	10.659	10.805	Continuing	Continuing
3326: *NIWO Rapid Capabilities Development for CIC*	0.000	5.176	5.389	4.391	-	4.391	5.624	5.785	5.921	6.001	Continuing	Continuing
4011: *Naval Coastal Warfare Surv and C4I Sys*	26.693	4.090	6.698	4.085	-	4.085	3.648	3.663	3.753	3.804	Continuing	Continuing
9C86: *Combatant Craft Replacement*	0.000	0.495	0.984	3.249	-	3.249	1.339	0.962	0.985	1.000	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Coastal Riverine Force (CRF), formerly Maritime Expeditionary Security Force (MESF), Riverine, and Naval Coastal Warfare (NCW), consists of two Groups and ten Squadrons; nine regular and one special (Guam). Each squadron is organized by Boat Detachments, Security Detachments and Command and Control (C2) divisions. The C2 Division is comprised of Sensor Detachments (SENSDET) operating the Radar Sonar Surveillance Center (RSSC) and Communications Detachments (COMMSDET) operating the Mobile Ashore Support Terminal (MAST IIIs), each separately funded. The Radar Sonar Surveillance Center (RSSC) is the only land-based and rapidly deployable mobile Navy system with the ability to conduct surface and subsurface surveillance in coastal and littoral areas. The system provides detailed contact information via various C4I systems to the tactical area commander based on radar, visual, thermal, electronic, and underwater acoustic sensor information. Missions supported with the MIUW-RSSCs are: OCONUS and INCONUS Force Protection, protecting port areas, high value assets, and surveilling the near shore areas. The MAST III is the C4ISR hub for the NCW Commander. MAST IIIs deploy to support Force Protection/Force Security Officer for Commander, Amphibious Group in its Harbor Defense and Coastal Sea Control missions.

As stated in the Maritime Expeditionary Security Force (MESF) CONOPS dated 11 April 2007: The MESF organization will be established through realignment of the CRF organizations (CRF Squadrons, Mobile Inshore Undersea Warfare Units, Inshore Boat Units, Mobile Security Squadrons, Mobile Security Detachments, Embarked Security Detachments, and Embarked Security Teams) into the CRF structure. Further realignment will result in the integration of intelligence, VBSS, and additional waterborne and security detachments to support new mission capability and provide additional NCC / JFMCC capacity. In addition to enhancing readiness of the current force, CRF will deploy adaptive force packages (AFPs) tailored for the specific missions to achieve greater efficiency and combat readiness than the current CRF force. By establishing a professional warfare community and dedicated Maritime Expeditionary Security Force capable of meeting the full range of security requirements, CRF closes a critical gap essential to full mission readiness for MSO. CRF provides a structure that establishes a single integrated maritime security force with one standard for training, certification, employment, and tactics, techniques, and procedures (TTP). This funding supports the future direction of the CRF as it is being determined externally by world events and internally by the progress of DoD initiatives modernize forces and capabilities.. CRF force will be agile, tailorable, and scalable and will use applied technology to quickly detect, deter or interdict potential threats to DoN assets in the littoral environment. Next generation surface and

subsurface surveillance systems, as well as enhanced C4I capabilities, are required to meet these operational objectives. These capabilities must be interoperable with higher and adjacent echelons of command (to include coalition allies) as well as with supporting elements to include joint forces.

The Expeditionary Warfare Decision System (EWDS) (formerly Tactically Integrated Sensors (TIS)) software constitutes an upgrade to the MAST-RSSC and is being executed as a separate Abbreviated Acquisition Program. The AAP will enable the deployment of a currently fielded Program of Record (POR) combat system (AN/SQQ-34C) known as Tactically Integrated Sensors (TIS) to the CRF units. TIS system restores the acoustic surveillance capability that has been eroded from the current RSSC suite. Additionally, future mult-spectal technologies are being looked at as enabling capabilities to expand the situational awareness of the littoral region, providing additional tactical decision aids to the local area commander.

This funding supports the Identity Dominance System (IDS) as key enabler in support of the Joint Personnel Identity (JPI) program. OPNAV N957 conducted the NCW CBA and MES ICD. MESF forces have a mobile security mission that requires methodologies, procedures, equipment and the communications capacity to identify individuals who represent a potential threat as a means to deter and eliminate individuals from conducting asymmetric/non-traditional attacks upon friendly forces, high value assets and coastal areas that NCW is charged with protecting. The Vessel Boarding Search and Seizure (VBSS) teams conducting Expanded Maritime Interception Operations also have a similar requirement to identify individuals. The development of a device to support identity functions is captured in the Identity Dominance System Capability Development Document (IDS CDD). IDS will be used in the following environments: aboard ship and ashore in ports, the littorals and extended inland field environments worldwide. IDS will be employed in maritime and very austere ashore environments and carried by individuals who are part of ship boarding parties and dismounted patrols. These mission and environmental demands dictate a portable, lightweight, rugged, and reliable system with intuitive and user friendly features. IDS biometric modalities may differ by mission profile, requiring the authoritative response to the On-Scene Commander/Boarding Officer on whether to detain or further investigate an individual of interest.

Coastal Riverine Force will integrate and employ a variety of surface and air assets, special vehicles, weapons and appropriately trained personnel. Mission assets needed to support the operational capabilities will vary widely dependant on the Host Nations involved. The Riverine Squadron will deploy with inherent, but limited, force protection capabilities. The Modular Unmanned Scouting Craft Littoral (MUSCL), is man-portable "X-Class" Unmanned Surface Vehicle providing enhanced surveillance and reconnaissance capability to Naval Expeditionary Combat Command (NECC) Riverine forces.

This program provides efforts in support of the Navy Expeditionary Warfare Division (formerly known as Navy Irregular Warfare (IW) Office). It provides for the identification and assessment of available technologies to confront expeditionary challenges, including irregular warfare, urgent/emergent and unfulfilled needs of the warfighter. It provides for the validation and combat demonstration of identified technologies and/or packages of technologies to meet Oversea Contingency Operation (OCO) goals. It also provides funding necessary to attract additional investment and sustainment of demonstrated capabilities. The goal of the Navy Expeditionary Warfare Innovations Branch office is to: identify those requirements necessary to meet the immediate warfighter needs; integrate those existing unique and/or related capabilities that can best meet those warfighter needs; test those integrated capabilities; and then demonstrate in real time and/or during planned deployments all within an 8 month period.

Combatant Craft Replacements will provide second generation Riverine Multi Mission Craft that will replace in-service Riverine Patrol Boats (RPBs) and Riverine Assault Boats (RABs). Combatant Craft replacements will: conduct inland waterway patrol and interdiction to preserve the rivers for friendly use as lines of

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*

communications; deny the use of rivers and waterways to waterborne and immediate shore sited hostile forces by barrier and interdiction operations; and, with augmentation of ground and air forces, locate and destroy hostile forces within a riparian area. Specific mission and capabilities will be identified in an NECC developed/OPNAV N95 approved Initial Capabilities Document (ICD). RDT&E funding will fund feasibility studies and procurement of mock-ups and prototype craft to demonstrate capabilities prior to production craft procurement.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	9.944	13.071	11.221	-	11.221
Current President's Budget	9.761	13.071	11.725	-	11.725
Total Adjustments	-0.183	0.000	0.504	-	0.504
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.183	0.000			
• Program Adjustments	0.000	0.000	2.363	-	2.363
• Rate/Misc Adjustments	0.000	0.000	-1.859	-	-1.859

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 3326: *NIWO Rapid Capabilities Development for CIC*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3326: *NIWO Rapid Capabilities Development for CIC*	0.000	5.176	5.389	4.391	-	4.391	5.624	5.785	5.921	6.001	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program provides efforts in support for the Navy Expeditionary Warfare Branch (formerly known as Navy Irregular Warfare (IW) Office). Funding provides for the identification and assessment of available technologies to confront expeditionary challenges, including irregular warfare, urgent/emergent and unfulfilled needs of the warfighter. It provides for the validation and combat demonstration of identified technologies and/or packages of technologies to meet Oversea Contingency Operation (OCO) goals. It also provides funding necessary to attract additional investment and sustainment of demonstrated capabilities. The goal of the Navy Expeditionary Warfare Innovations Branch office is to: identify those requirements necessary to meet the immediate warfighter needs; integrate those existing unique and/or related capabilities that can best meet those warfighter needs; test those integrated capabilities; and then demonstrate in real time and/or during planned deployments all within an 8 month period. Those areas of capability to be investigated by the Expeditionary Warfare Innovations Branch include any or all of the following:

- Persistent Intelligence Surveillance Reconnaissance (ISR)
- Close-in, expeditionary ISR
- Conventional forces support to SOF
- Rotary wing support to SOF
- All source intelligence fusion
- Littoral precision strike capability
- Unmanned Vehicles (Undersea/Air/Surface/Ground vehicles for Mine/ISR/Strike/Surveillance/Detection/IED capabilities

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Navy Irregular Warfare	5.176	5.389	4.391
Articles:	0	0	0
FY 2012 Accomplishments: Identify, assess, integrate and test available persistent Intelligence Surveillance and Reconnaissance (ISR) and all-source intelligence fusion technologies in support of the CIC mission supporting the warfighter. Additional efforts to validate and demonstrate identified ISR and intelligence fusion technologies. Other technologies assessed/demonstrated in support of Confronting Expeditionary Warfare Challenges as available.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 3326: *NIWO Rapid Capabilities Development for CIC*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Identify, assess, integrate and test available close-in expeditionary ISR and littoral precision strike technologies in support of the CIC mission supporting the warfighter. Additional efforts to validate and demonstrate identified ISR and littoral precision strike technologies. Other technologies assessed/demonstrated in support of Confronting Expeditionary Warfare Challenges as available. ***FY 2014 Plans:*** Identify, assess, integrate and test available close-in expeditionary ISR and littoral precision strike technologies in support of the Navy Expeditionary Warfare missions,including Irregular Warfare, supporting the warfighter. Additional efforts to validate and demonstrate identified ISR and littoral precision strike technologies including payloads and platforms. Other technologies assessed/demonstrated in support of Confronting Expeditionary Warfare Challenges as available.			
Accomplishments/Planned Programs Subtotals	5.176	5.389	4.391

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Identify, integrate, test then demonstrate capabilities to meet the warfighter needs.

E. Performance Metrics

To successfully conduct technology reviews to confront expeditionary warfare challenges and successfully identify and validate identified technologies.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 3326: *NIWO Rapid Capabilities Development for CIC*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Spt	C/CPFF	Dell:Washington, DC	0.000	0.200	Jul 2012	0.200	Feb 2013	0.200	Dec 2013	-		0.200	Continuing	Continuing	Continuing
Travel	WR	NAVSEA/ HQ:Washington, DC	0.000	0.050	Apr 2012	0.050	Nov 2012	0.050	Nov 2013	-		0.050	Continuing	Continuing	Continuing
		Subtotal	0.000	0.250		0.250		0.250		0.000		0.250			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	WR	NUWC:Newport, RI	0.000	0.650	Feb 2012	0.650	Jan 2013	0.650	Jan 2014	-		0.650	Continuing	Continuing	Continuing
Test and Evaluation	WR	NAWC:China Lake, CA	0.000	0.250	Mar 2012	0.305	Jan 2013	0.400	Jan 2014	-		0.400	Continuing	Continuing	Continuing
Test and Evalution	WR	NSWC:Carderock, MD	0.000	0.100	May 2012	0.100	Feb 2013	0.100	Feb 2014	-		0.100	Continuing	Continuing	Continuing
Test and Evalution	SS/CPFF	ARL/UT:Austin, TX	0.000	0.200	Mar 2012	0.250	May 2013	0.300	May 2014	-		0.300	Continuing	Continuing	Continuing
Test and Evalution	SS/CPFF	SPAWAR:Charleston, SC	0.000	0.700	Jul 2012	1.950	May 2013	1.314	May 2014	-		1.314	Continuing	Continuing	Continuing
Test and Evaluation	WR	SPAWAR:Charleston, SC	0.000	0.800	Mar 2012	0.600	Jan 2013	0.200	Jan 2014	-		0.200	Continuing	Continuing	Continuing
Test and Evaluation	WR	SPAWAR:San Diego, CA	0.000	0.325	Jun 2012	0.350	Jan 2013	0.350	Jan 2014	-		0.350	Continuing	Continuing	Continuing
Test and Evaluation	SS/FFP	ARL/PSU:State College, PA	0.000	0.115	Mar 2012	0.125	Apr 2013	0.125	Apr 2014	-		0.125	Continuing	Continuing	Continuing
Test and Evaluation	WR	NRL:Washington, DC	0.000	0.200	Jun 2012	0.200	Jan 2013	0.200	Jan 2014	-		0.200	Continuing	Continuing	Continuing
Test and Evaluation	WR	NSWC:Indian Head, MD	0.000	0.886	Dec 2012	0.100	Feb 2013	0.150	Feb 2014	-		0.150	Continuing	Continuing	Continuing
Test and Evaluation	Various	Various:Various	0.000	0.700	Aug 2012	0.509	Apr 2013	0.352	Apr 2014	-		0.352	Continuing	Continuing	Continuing
		Subtotal	0.000	4.926		5.139		4.141		0.000		4.141			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 3326: *NIWO Rapid Capabilities Development for CIC*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	5.176		5.389		4.391		0.000		4.391			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 3326: *NIWO Rapid Capabilities Development for CIC*

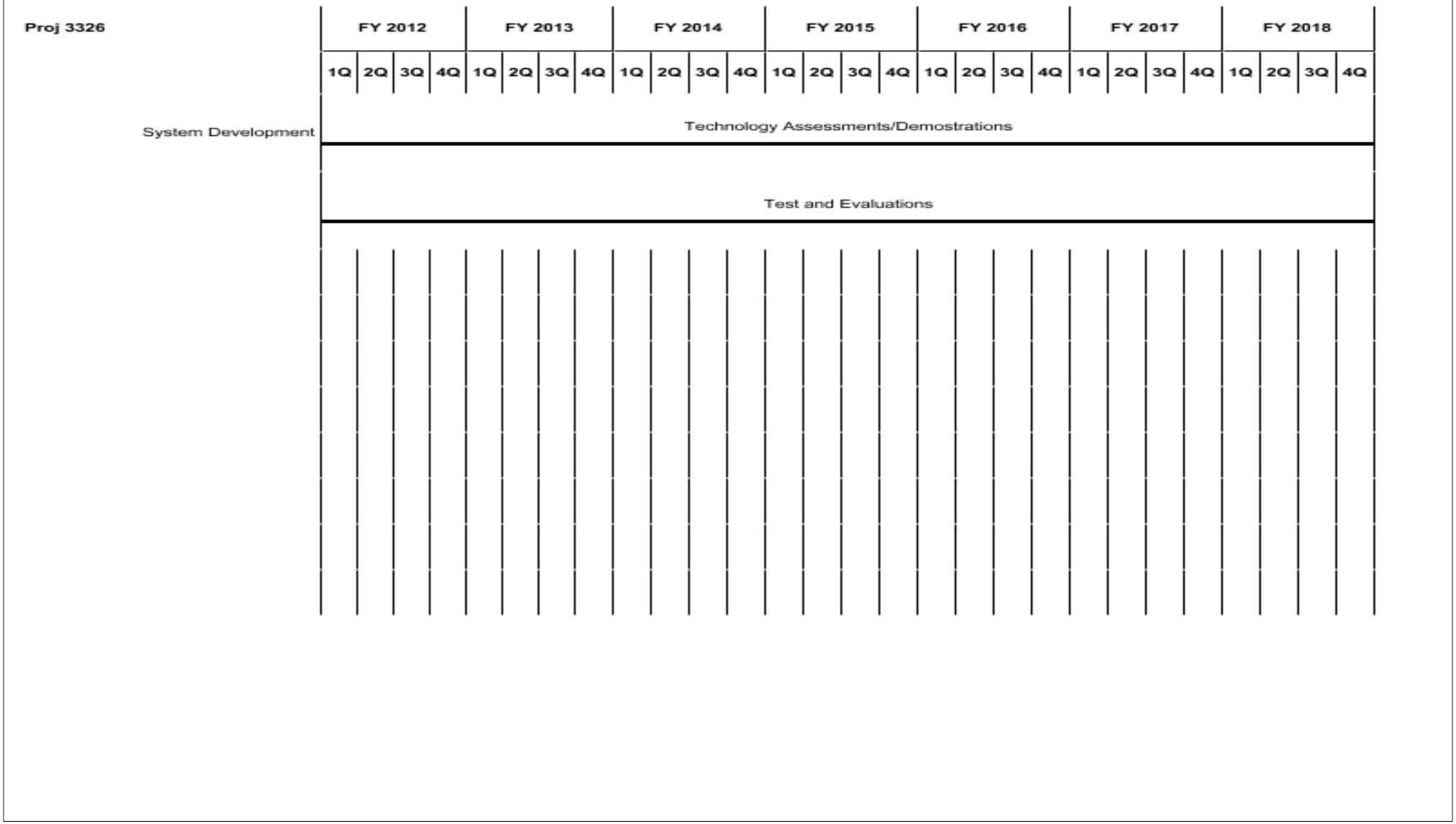


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 3326: *NIWO Rapid Capabilities Development for CIC*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3326				
System Development: Technology Assessments/Demonstrations	1	2012	4	2018
System Development: Test and Evaluations	1	2012	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
4011: *Naval Coastal Warfare Surv and C4I Sys*	26.693	4.090	6.698	4.085	-	4.085	3.648	3.663	3.753	3.804	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Coastal Riverine Force (CRF), formerly Maritime Expeditionary Security Force (MESF), Riverine, and Naval Coastal Warfare (NCW), consists of two Groups and ten Squadrons; nine regular and one special (Guam). Each squadron is organized by Boat Detachments, Security Detachments and Command and Control (C2) divisions. The C2 Division is comprised of Sensor Detachments (SENSDET) operating the Radar Sonar Surveillance Center (RSSC) and Communications Detachments (COMMSDET) operating the Mobile Ashore Support Terminal (MAST IIIs), each separately funded. The Radar Sonar Surveillance Center (RSSC) is the only land-based and rapidly deployable mobile Navy system with the ability to conduct surface and subsurface surveillance in coastal and littoral areas. The system provides detailed contact information via various C4I systems to the tactical area commander based on radar, visual, thermal, electronic, and underwater acoustic sensor information. Missions supported with the MIUW-RSSCs are: OCONUS and INCONUS Force Protection, protecting port areas, high value assets, and surveilling the near shore areas. The MAST III is the C4ISR hub for the NCW Commander. MAST IIIs deploy to support Force Protection/Force Security Officer for Commander, Amphibious Group in its Harbor Defense and Coastal Sea Control missions.

As stated in the Maritime Expeditionary Security Force (MESF) CONOPS dated 11 April 2007: The MESF organization will be established through realignment of the CRF organizations (CRF Squadrons, Mobile Inshore Undersea Warfare Units, Inshore Boat Units, Mobile Security Squadrons, Mobile Security Detachments, Embarked Security Detachments, and Embarked Security Teams) into the CRF structure. Further realignment will result in the integration of intelligence, VBSS, and additional waterborne and security detachments to support new mission capability and provide additional NCC / JFMCC capacity. In addition to enhancing readiness of the current force, CRF will deploy adaptive force packages (AFPs) tailored for the specific missions to achieve greater efficiency and combat readiness than the current CRF force. By establishing a professional warfare community and dedicated Maritime Expeditionary Security Force capable of meeting the full range of security requirements, CRF closes a critical gap essential to full mission readiness for MSO. CRF provides a structure that establishes a single integrated maritime security force with one standard for training, certification, employment, and tactics, techniques, and procedures (TTP). This funding supports the future direction of the CRF as it is being determined externally by world events and internally by the progress of DoD initiatives modernize forces and capabilities.. CRF force will be agile, tailorable, and scalable and will use applied technology to quickly detect, deter or interdict potential threats to DoN assets in the littoral environment. Next generation surface and subsurface surveillance systems, as well as enhanced C4I capabilities, are required to meet these operational objectives. These capabilities must be interoperable with higher and adjacent echelons of command (to include coalition allies) as well as with supporting elements to include joint forces.

The Expeditionary Warfare Decision System (EWDS) (formerly Tactically Integrated Sensors (TIS)) software constitutes an upgrade to the MAST-RSSC and is being executed as a separate Abbreviated Acquisition Program. The AAP will enable the deployment of a currently fielded Program of Record (POR) combat system (AN/

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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SQQ-34C) known as Tactically Integrated Sensors (TIS) to the CRF units. TIS system restores the acoustic surveillance capability that has been eroded from the current RSSC suite. Additionally, future mult-spectal technologies are being looked at as enabling capabilities to expand the situational awareness of the littoral region, providing additional tactical decision aids to the local area commander.

This funding supports the Identity Dominance System (IDS) as key enabler in support of the Joint Personnel Identity (JPI) program. OPNAV N957 conducted the NCW CBA and MES ICD. MESF forces have a mobile security mission that requires methodologies, procedures, equipment and the communications capacity to identify individuals who represent a potential threat as a means to deter and eliminate individuals from conducting asymmetric/non-traditional attacks upon friendly forces, high value assets and coastal areas that NCW is charged with protecting. The Vessel Boarding Search and Seizure (VBSS) teams conducting Expanded Maritime Interception Operations also have a similar requirement to identify individuals. The development of a device to support identity functions is captured in the Identity Dominance System Capability Development Document (IDS CDD). IDS will be used in the following environments: aboard ship and ashore in ports, the littorals and extended inland field environments worldwide. IDS will be employed in maritime and very austere ashore environments and carried by individuals who are part of ship boarding parties and dismounted patrols. These mission and environmental demands dictate a portable, lightweight, rugged, and reliable system with intuitive and user friendly features. IDS biometric modalities may differ by mission profile, requiring the authoritative response to the On-Scene Commander/Boarding Officer on whether to detain or further investigate an individual of interest.

Coastal Riverine Force will integrate and employ a variety of surface and air assets, special vehicles, weapons and appropriately trained personnel. Mission assets needed to support the operational capabilities will vary widely dependant on the Host Nations involved. The Riverine Squadron will deploy with inherent, but limited, force protection capabilities. The Modular Unmanned Scouting Craft Littoral (MUSCL), is man-portable "X-Class" Unmanned Surface Vehicle providing enhanced surveillance and reconnaissance capability to Naval Expeditionary Combat Command (NECC) Riverine forces.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: MESF (Formerly NCW) Upgrades	2.391	5.291	3.241
Articles:	0	0	0
FY 2012 Accomplishments: MESF Upgrades - Provide management support and development of new C4ISR capabilities for Naval Coastal Warfare forces.			
FY 2013 Plans: MESF Upgrades - Provide management support and development of new C4ISR capabilities for Naval Coastal Warfare forces. Increase in funding from FY12 to FY13 is needed to develop engineering changes to upgrade C4I equipment in the areas of both tactical and operation Command/Control (C2). Development includes such efforts as the Joint Expeditionary Command, Control, Communications (JEC3) work and Riverine Command Boat (RCB) C4I integration.			
FY 2014 Plans: MESF Upgrades - Provide management support and development of new C4ISR capabilities for Naval Coastal Warfare forces.			
Title: Identity Dominance System	1.699	1.407	0.844
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Identity Dominance System - Program Management acquisition achieved Milestone C for the IDS program of record and the design and development of the IDS device. Additional efforts included award of base production contract, execution of operational testing of the Identity Dominance System, and preparing for Full Rate Production. ***FY 2013 Plans:*** Finish operational testing of production representative IDS to ensure operational viability. Update the system to resolve any critical or substantive issues identified during operational testing. Begin fielding initial operational capability and progress towards a full rate production decision. ***FY 2014 Plans:*** Program management will be in the process of procuring and fielding the IDS with OPN. Objective include resolving critical issues identified during operational use and implementing required capabilities not implemented in initial fielding.			
Accomplishments/Planned Programs Subtotals	4.090	6.698	4.085

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/8120: *Maritime Expeditionary Security Force*	0.136	7.344	4.287		4.287	9.650	10.042	9.337	9.497	0.000	74.057
• OPN/8128: *Physical Security Equipment*	3.158	3.180	2.999		2.999	3.041	3.317	3.184	3.213	0.000	22.122

Remarks

D. Acquisition Strategy

MESF (formerly NCW) - There are ten (10) MESF MAST III systems and twenty (20) MIUW-RSSC systems. The Naval Coastal Warfare systems, the Mobile Ashore Support Terminal (MAST III) and the MIUW Radar Sonar Surveillance Center (RSSC) AN/TSQ-108A(V)4 MOD 2 require the production of Engineering Change Packages (ECPs) for the purposes of technology refresh and to mitigate the impact of obsolescent components. This issue supports the development and testing of the ECP kits as well as the procurement of material of initial kits involved in testing. For the MAST III systems - AN/USC-60 baseband equipment upgrades and GCCS-M upgrades. Timeplex are no longer supported and will need to be replaced with Promina multiplexers. For the MIUW systems - Continuing efforts to provide an IP connectivity path using 1) VSAT for short ops requiring quick set ups using commercial SATCOM and 2) USC-67 (triband SHF) for longer ops using MILSATCOM.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

IDS - The fundamental purpose of the IDS program is to provide the Navy and Marine Corps with an integrated and ruggedized capability to employ individual-oriented identity information in the conduct of maritime and expeditionary operations. Fieldable prototypes in response to the CENTCOM JUONS were evaluated in limited user assessments and
under stringent to meet Naval operational effectiveness and suitability. Additionally, a market survey conducted and concluded that no COTS or GOTS systems could meet the requirements in the IDS/JPI(V)1 program entered System Demonstration (SD) at Milestone B in 4QTR FY10, and the SD phase is planned to culminate in a Milestone C
decision in 4QTR FY12. The SBIR process was executed in a Phase I initiative as a risk mitigation step to enable the EMD Phase II process in developmental testing, design refinement, production representative level articles for evaluation/selection, and logistical support preparations to formulate the production decision. Production will be accomplished via a prime contractor to be selected during a competitive contracting process.

E. Performance Metrics

MESF: Successfully complete Preliminary Design Review (PDR), Critical Design Review (CDR) and Physical Configuration Audit (PCA) for Expeditionary Warfare Decision System (EWDS) (formerly Tactically Integrated Sensor (TIS)).

IDS: Conduct Milestone reviews in order to successfully achieve Milestone C. Successfully achieve IOC.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware/Software Development	C/CPFF	SSC CH:SSC SAN DIEGO	0.100	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Hardware/Software Development	WR	NSWC DAHLGREN:DAHLGREN	3.250	0.200	Feb 2012	0.560	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Hardware/Software Development	WR	NSWC CRANE:CRANE	0.900	0.200	Feb 2012	0.560	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering1	C/CPFF	SSC CH:SSC SAN DIEGO	0.547	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering2	WR	SSC CH:SSC SAN DIEGO	0.750	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering3	WR	NUWC:KEYPORT	0.850	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering4	WR	NSMRL:Not Specified	0.100	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering5	C/CPFF	SSC SD:SAN DIEGO	6.647	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering6	WR	NSWC:DAHLGREN	2.450	0.500	Feb 2012	0.640	Feb 2013	2.752	Feb 2014	-		2.752	Continuing	Continuing	Continuing
Systems Engineering7	WR	NUWC:NEWPORT	0.080	0.200	Feb 2012	0.360	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Training Development	WR	SSC CH:SSC SAN DIEGO	0.401	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test Integration	WR	NUWC:KEYPORT	0.819	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test Integration	WR	NSWC:CRANE	0.200	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	17.094	1.100		2.120		2.752		0.000		2.752			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Data	WR	SSC CH/SSC SD:SSC SAN DIEGO	0.381	0.100	Feb 2012	0.100	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Technical Data	WR	NSWC:CRANE	0.250	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Data	WR	NUWC:KEYPORT	0.250	0.170	Feb 2012	0.170	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Technical Data	MIPR	Coast Guard:Not Specified	0.175	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Technical Data	WR	NSWC:DAHLGREN	0.175	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test Planning	WR	NUWC:KEYPORT	0.200	0.090	Feb 2012	0.090	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Test Planning	WR	NSWC:CRANE	0.350	0.150	Feb 2012	0.150	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Test Planning	WR	SSC CH/:SSC SAN DIEGO	0.200	0.250	Feb 2012	0.410	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Test Planning - Non-Lethal	WR	NSWC:DAHLGREN	0.750	0.150	Feb 2012	0.470	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Test Planning - IDS	WR	NSWC:DAHLGREN	0.450	0.250	Feb 2012	0.660	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	3.181	1.160		2.050		0.000		0.000		0.000			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	SSC CH:SSC SAN DIEGO	0.211	0.200	Feb 2012	0.360	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support	WR	NUWC:KEYPORT	0.100	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support	WR	NSWC:DAHLGREN	2.942	0.703	Feb 2012	0.840	Feb 2013	0.500	Feb 2014	-		0.500	Continuing	Continuing	Continuing
Program Management Support	WR	NSWC:CRANE	0.562	0.250	Feb 2012	0.400	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support	Various	Various:Various	2.478	0.647	Feb 2012	0.898	Feb 2013	0.833	Feb 2014	-		0.833	Continuing	Continuing	Continuing
Travel	Various	Various:Various	0.085	0.030	Feb 2012	0.030	Feb 2013	0.000		-		0.000	Continuing	Continuing	Continuing
DAWDF	Various	Not Specified:Not Specified	0.040	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	6.418	1.830		2.528		1.333		0.000		1.333			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	26.693	4.090		6.698		4.085		0.000		4.085			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

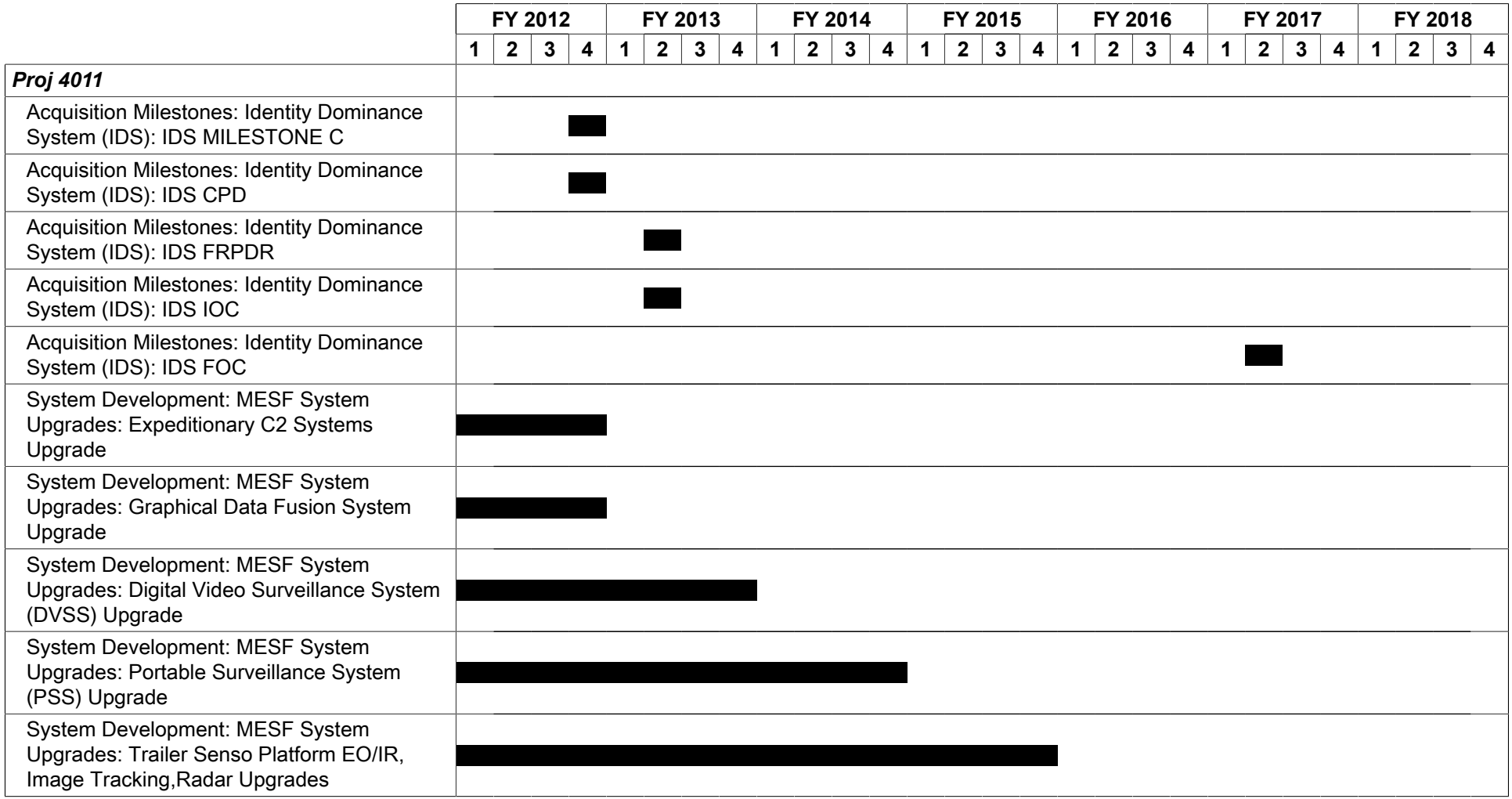


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

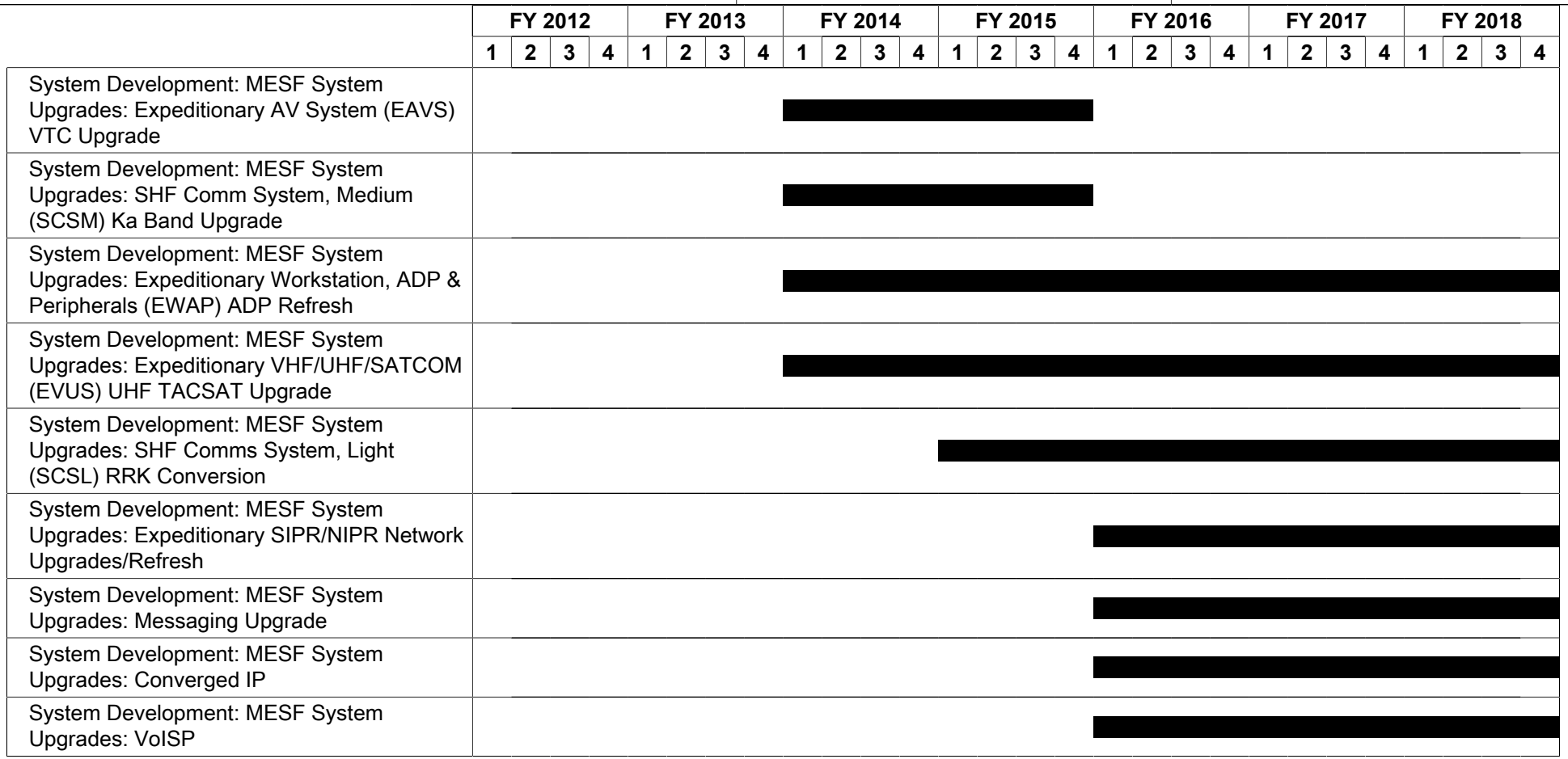


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

Schedule Details

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 4011				
Acquisition Milestones: Identity Dominance System (IDS): IDS MILESTONE C	4	2012	4	2012
Acquisition Milestones: Identity Dominance System (IDS): IDS CPD	4	2012	4	2012
Acquisition Milestones: Identity Dominance System (IDS): IDS FRPDR	2	2013	2	2013
Acquisition Milestones: Identity Dominance System (IDS): IDS IOC	2	2013	2	2013
Acquisition Milestones: Identity Dominance System (IDS): IDS FOC	2	2017	2	2017
System Development: MESF System Upgrades: Expeditionary C2 Systems Upgrade	1	2012	4	2012
System Development: MESF System Upgrades: Graphical Data Fusion System Upgrade	1	2012	4	2012
System Development: MESF System Upgrades: Digital Video Surveillance System (DVSS) Upgrade	1	2012	4	2013
System Development: MESF System Upgrades: Portable Surveillance System (PSS) Upgrade	1	2012	4	2014
System Development: MESF System Upgrades: Trailer Senso Platform EO/IR, Image Tracking,Radar Upgrades	1	2012	4	2015
System Development: MESF System Upgrades: Expeditionary AV System (EAVS) VTC Upgrade	1	2014	4	2015
System Development: MESF System Upgrades: SHF Comm System, Medium (SCSM) Ka Band Upgrade	1	2014	4	2015
System Development: MESF System Upgrades: Expeditionary Workstation, ADP & Peripherals (EWAP) ADP Refresh	1	2014	4	2018
System Development: MESF System Upgrades: Expeditionary VHF/UHF/SATCOM (EVUS) UHF TACSAT Upgrade	1	2014	4	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 4011: *Naval Coastal Warfare Surv and C4I Sys*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
System Development: MESF System Upgrades: SHF Comms System, Light (SCSL) RRK Conversion	1	2015	4	2018
System Development: MESF System Upgrades: Expeditionary SIPR/NIPR Network Upgrades/Refresh	1	2016	4	2018
System Development: MESF System Upgrades: Messaging Upgrade	1	2016	4	2018
System Development: MESF System Upgrades: Converged IP	1	2016	4	2018
System Development: MESF System Upgrades: VoISP	1	2016	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 9C86: *Combatant Craft Replacement*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9C86: *Combatant Craft Replacement*	0.000	0.495	0.984	3.249	-	3.249	1.339	0.962	0.985	1.000	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Combatant Craft Replacements will provide second generation Riverine Multi Mission Craft that will replace in-service Riverine Patrol Boats (RPBs) and Riverine Assault Boats (RABs). Combatant Craft replacements will: conduct inland waterway patrol and interdiction to preserve the rivers for friendly use as lines of communications; deny the use of rivers and waterways to waterborne and immediate shore sited hostile forces by barrier and interdiction operations; and, with augmentation of ground and air forces, locate and destroy hostile forces within a riparian area. Specific mission and capabilities will be identified in an NECC developed/OPNAV N95 approved Initial Capabilities Document (ICD). RDT&E funding will fund feasibility studies and procurement of mock-ups and prototype craft to demonstrate capabilities prior to production craft procurement.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Combatant Craft Replacement	0.495	0.984	3.249
Articles:	0	0	0

FY 2012 Accomplishments:

Conduct Future Combatant Craft feasibility design study(ies). Evaluate transition potential of the Riverine Patrol Boat (RPB) Advance Weapon Systems to interface with the Riverine Assault Boat (RAB), Riverine Command Boat (RCB) and Force Protection-Coastal (FP-C).

FY 2013 Plans:

NECC recently merged the Riverine and MESF Forces into a single Command, the Coastal Riverine Force. With this merger was a consolidation of boat requirements but with an increase in boat capability. This increase in boat capability is being studied to consolidate existing requirements of the MESF 34-ft PB, RPB and RAB into a single requirement and identify material solutions. Additionally, advanced weapon capabilities to include Stabilized Small Arms Mount (SSAM), MK 38 Mod 2 Gun Weapon System, non-lethal weapon systems, and precision engagement weapon systems are being introduced to the NECC fleet of boats which requires integration feasibility studies, integration development, and system testing.

FY 2014 Plans:

Convene workshops and increase design efforts with the goal being to posture for replacement of legacy 33' Riverine Assault Boats, 33' Special Operations Craft Riverine, 34' Patrol Boats, and 39' Riverine Patrol Boats with a common combatant craft hull,

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 9C86: *Combatant Craft Replacement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
mechanical, and electrical (HME) package. Ensure the Stabilized Small Arms Mount (SSAM) Abbreviated Acquisition Program (AAP) completes developmental testing, demonstrates operational suitability, and gains WSESRB concurrence coincidental with delivery of and installation on MK VI Patrol Boats. Evaluate, through modeling and simulation, effectiveness of a MK 38 25mm Machine Gun System when mounted on the forward foundation of a MK VI Patrol Boat during operations in high sea states (3+) and wind conditions. Develop a MK VI Patrol Boat load plan that supports sustained craft high performance abilities and stability. Conduct preliminary evaluation of next generation Environmental Protection Agency Tier III-Compliant marine engines when used in combatant craft. Continue Future Combatant Craft feasibility design study(ies). Evaluate transition potential of the Riverine Patrol Boat (RPB) Advance Weapon Systems to interface with the Riverine Assault Boat (RAB), Riverine Command Boat (RCB) and Force Protection-Coastal (FP-C).			
Accomplishments/Planned Programs Subtotals	0.495	0.984	3.249

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Acquisition of RDT&E funded mockup and prototype craft for testing to be accomplished using "tailored" GSA procurements in accordance with a PMS325G approved/ OPNAV N95 endorsed Riverine Combatant Craft Replacement Acquisition Strategy.

E. Performance Metrics

Successfully demonstrate system and prototype functionality to support approved Initial Capabilities Document (ICD).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 9C86: *Combatant Craft Replacement*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Craft Feasibility Study	WR	NSWC:Carderock, MD	0.000	0.050	Dec 2011	0.181	Jan 2013	1.083	Jan 2014	-		1.083	Continuing	Continuing	Continuing
Craft Mockup Award	WR	NSWC:Carderock, MD	0.000	0.400	Aug 2012	0.600	Jan 2013	1.083	Jan 2014	-		1.083	Continuing	Continuing	Continuing
Craft Study Report	WR	NSWC:Carderock, MD	0.000	0.045	Sep 2012	0.203	Jan 2013	1.083	Jan 2014	-		1.083	Continuing	Continuing	Continuing
		Subtotal	0.000	0.495		0.984		3.249		0.000		3.249			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.495		0.984		3.249		0.000		3.249			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 9C86: *Combatant Craft Replacement*

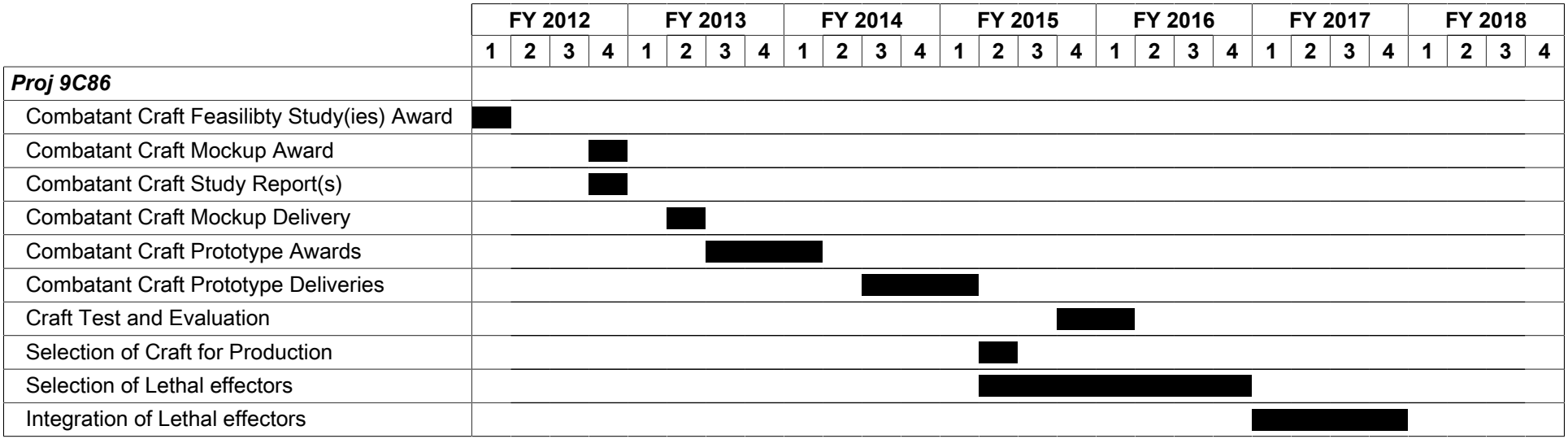


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604230N: *Warfare Support System*	PROJECT 9C86: *Combatant Craft Replacement*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9C86				
Combatant Craft Feasilibty Study(ies) Award	1	2012	1	2012
Combatant Craft Mockup Award	4	2012	4	2012
Combatant Craft Study Report(s)	4	2012	4	2012
Combatant Craft Mockup Delivery	2	2013	2	2013
Combatant Craft Prototype Awards	3	2013	1	2014
Combatant Craft Prototype Deliveries	3	2014	1	2015
Craft Test and Evaluation	4	2015	1	2016
Selection of Craft for Production	2	2015	2	2015
Selection of Lethal effectors	2	2015	4	2016
Integration of Lethal effectors	1	2017	4	2017

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	764.217	75.683	71.645	68.463	-	68.463	72.004	60.021	62.990	63.869	Continuing	Continuing
0486.: *Tactical Support Center*	111.068	12.752	5.245	5.027	-	5.027	5.032	6.260	6.403	6.514	Continuing	Continuing
0709: *GCCS-M Maritime Applications*	176.126	18.508	5.330	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	199.964
2213: *Mission Planning*	231.944	19.116	25.195	20.059	-	20.059	37.463	26.211	24.845	22.919	Continuing	Continuing
2307: *Shipboard LAN/WAN*	0.000	0.300	0.313	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.613
3032: *NTCSS (Naval Tactical Command Spt Sys)*	25.008	14.061	15.015	16.600	-	16.600	7.194	1.779	0.931	0.948	Continuing	Continuing
3320: *TRIDENT Warrior*	0.000	3.619	3.579	2.340	-	2.340	2.318	2.254	2.304	2.345	Continuing	Continuing
3323: *Maritime Tactical Command & Control (MTC2)*	0.000	0.003	7.441	17.443	-	17.443	14.410	19.304	24.238	26.778	Continuing	Continuing
3324: *Navy Air Operations Command and Control (NAOC2)*	0.000	2.073	4.983	4.066	-	4.066	2.165	1.131	1.157	1.176	Continuing	Continuing
9123: *FORCEnet*	220.071	5.251	4.544	2.928	-	2.928	3.422	3.082	3.112	3.189	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Project 3323 Maritime Tactical Command & Control (MTC2): In FY 2013, the development of maritime tactical command and control capabilities was realigned from Global Command and Control System Maritime (GCCS-M) Maritime Applications (Project Unit x0709) to the MTC2 program (Project Unit x3323).
In FY 2014, Global Force Management - Data Intitiative efforts transitioned to the Maritime Tactical Command and Control (MTC2) program (Project unit x3323).

A. Mission Description and Budget Item Justification

The Tactical Command System upgrades the Navy's Command, Control, Computer and Intelligence (C3I) systems and processes C3I information for all warfare mission areas including planning, direction and reconstruction of missions for peacetime, wartime and times of crises.

Tactical Support Center: The Tactical Mobile program provides evolutionary systems and equipment upgrades to support the Maritime Component Commanders (Expeditionary Ashore) and Maritime Patrol and Reconnaissance Force Commanders with the capability to plan, direct and control the tactical operations of Joint and Naval Expeditionary Forces and other assigned units within their respective area of responsibility. These operations include littoral, open ocean, and over land surveillance, anti-surface warfare, over-the-horizon targeting, counter-drug operations, power projection, antisubmarine warfare, mining, search and rescue, and special

operations. The missions are supported by the Tactical Operations Centers (formerly Tactical Support Centers), the Mobile Tactical Operations Centers (formerly Mobile Operations Control Centers), and the Joint Mobile Ashore Support Terminal. TacMobile C2 systems are based on the Global Command and Control System - Maritime architecture which is Defense Information Infrastructure Common Operating Environment compliant.

Global Command and Control System - Maritime (GCCS-M): GCCS-M is the Maritime implementation of the Global Command and Control System (GCCS) Family of Systems (FoS). It supports decision making at all echelons of command with a single, integrated, scalable C4I system that fuses, correlates, filters, maintains and displays location and attribute information on friendly, hostile and neutral land, sea and air forces, integrated with available intelligence and environmental information. It operates in near real-time and constantly updates unit positions and other situational awareness data. GCCS-M also records data in appropriate databases and maintains a history of changes to those records. System users can then use the data to construct relevant tactical pictures using maps, charts, topography overlays, oceanographic overlays, meteorological overlays, imagery, and all-source intelligence information coordinated into a Common Operational Picture that can be shared locally and with other sites. Navy commanders review and evaluate the general tactical situation, plan actions and operations, direct forces, synchronize tactical movements, and integrate force maneuver with firepower. The system operates in a variety of environments and supports joint, coalition, and allied forces. GCCS-M is implemented Afloat and at Ashore fixed command centers.

Mission Planning: The Joint Mission Planning System (JMPS) is the designated automated mission planning system for the Navy. JMPS enables weapon system employment by providing the information, automated tools, and decision aids needed to rapidly plan aircraft, weapon, or sensor missions, load mission data into aircraft and weapons, and conduct post-mission analysis. JMPS is a mission critical system which is a co-development effort between the United States Navy (USN) and United States Air Force (USAF). Common requirements are identified and capabilities are developed and prioritized in an evolutionary approach. An individual JMPS Mission Planning Environment (MPE) is a combination of the JMPS framework, common capabilities, and the necessary system hardware required to satisfy mission planning objectives. Most Tactical Naval Aviation platforms are dependent solely on JMPS to plan precision guided munitions, sensor systems, tactical data links, secure voice communications, and basic Safety of Flight functions. The following type/model/series (T/M/S) naval aircraft are supported by JMPS: AH-1W, F/A-18 A-F, E-2C, EP-3E, EA-6B, AV-8B, S-3, V-22, Chief of Naval Air Training (CNATRA), EA-18G, MV-22, C-2, MH-53E, P-3, Aircraft Carrier Intelligence Center (CVIC), SH-60B/F, HH-60H, CH-53D/E, CH-46E, UH-1N, VH-3/VH-60, AH-1Z, UH-1Y, MH-60R/S and E-2D. All of the aforementioned T/M/S are required to transition to Microsoft Windows 7 before Microsoft XP support ends April 2014 by using Framework (FW) Version 1.3.5. An extension of Windows XP is planned to allow all naval aircraft to be supported during the transition. Future JMPS platforms include: MQ-4C (Triton) and H-53K. The next JMPS architecture version will support net-centric goals by providing route "publish and subscribe" capabilities, transition to 64 bit and emerging technology and Information Assurance (IA) requirements. Funding profile includes 64 bit development which requires a complete software restructure to address memory limitations and system errors resulting in JMPS computer crashes. Failure to move to 64 bit will result in an inability to support future advanced platform mission planning needs based on processing space and capability.

Shipboard Local Area Network (LAN)/Wide Area Network (WAN) : Integrated Shipboard Network System (ISNS): ISNS provides Navy ships with reliable, high-speed SECRET and UNCLASSIFIED LANs, providing the network infrastructure (switches and drops to the PC), Basic Network Information Distribution Services and access to the Defense Information Systems Network WAN, Secure and Nonsecure Internet Protocol Router Network (SIPRNET and NIPRNET) which are used by other hosted applications or systems such as Naval Tactical Command Support System, Global Command and Control System - Maritime, Defense Messaging System, Navy Standard Integrated Personnel System, Naval Mission Planning System, Theater Battle Management Core Systems, and Tactical Tomahawk Weapons Control

System. It enables real-time information exchange within the ship and between afloat units, Component Commanders, and Fleet Commanders, and is a key factor in the implementation of the Navy's portion of Joint Vision 2020.

Naval Tactical Command Support System (NTCSS): Enterprise Database and Maritime Logistics Data Network (MLDN): The NTCSS is a multi-function program designed to provide standard tactical support information systems to various afloat and associated shore-based fleet activities. The mission is to provide the Navy and Marine Corps with an integrated, scalable system that supports the management of logistical information, personnel, material and funds required to maintain and operate ships, submarines, and aircraft.

Maritime Tactical Command and Control (MTC2): MTC2 provides Navy with the ability to deliver maritime domain-unique tactical Command and Control (C2) capabilities from Maritime Operations Centers down to the lowest tactical unit of operations. MTC2 supports alignment and provides interoperability of Navy C2 with the Department of Defense (DoD) joint C2 way-forward. The program will fully align with joint C2 data and service exposure and consumption goals, architectures, and Net-Centric Enterprise Service efforts. These resources support the evolutionary acquisition, materiel solution analysis, technology development, engineering and software development of these capabilities. Global Force Management - Data Initiative (GFM-DI) is the Department-wide enterprise solution that enables visibility/ accessibility/sharing of data applicable to the entire DoD force structure. GFM-DI is the enterprise solution for force structure representation and MTC2 will be the data source for the Navy's force structure representation. In FY 2014, GFM-DI will perform design and development for integration into MTC2 and will align to the joint command and control objective architecture (jC2 OA).

Navy Air Operations Command and Control (NAOC2): integrates and tests Air Force produced systems that provide for an integrated and scalable planning system that provides standardized, secure, automated decision support for Air Force, Joint, and Allied commanders worldwide. These programs provide automated air operations planning, execution management and intelligence capabilities at the Force level to include Fleet Commanders, Numbered Fleet Commanders, Commander Carrier Strike Group, Commander Expeditionary Strike Group, Commander Landing Force, and Joint Task Force Commanders. NAOC2 includes Theater Battle Management Core System (TBMCS), Command and Control Air and Space Operations Suite (C2AOS), plus Command, Control and Information Services (C2IS). C2AOS and C2IS are being developed as Service Oriented Architecture (SOA) services to allow for scalability and integration with Common Computing Environments (CCE). Continuation of these efforts will significantly enhance the Joint Force Air Component Commander (JFACC) and Combined Air Operations Center (CAOC) personnel to plan daily air operations including strike, airlift, offensive and defensive air, and tanker missions in support of combat operations, addressing the requirement of war fighter of distributed planning and execution processes and significantly improving Joint interoperability. TBMCS continues a hardware transition to CCEs such as Consolidated Afloat Networks and Enterprise Services (CANES). Currently, TBMCS is the key system that is used to conduct real world air planning in the Joint and Navy environment. C2AOS and C2IS will replace TBMCS in a SOA environment while bringing more flexibility to the war fighter, planner, and executor.

FORCEnet: Initiative's mission is to deliver Information Dominance by (a) accelerating the transformation to a Distributed, Networked force; (b) achieve interoperability based on Architectures and Standards; and (c) Experiment with, evaluate and employ the enabling technologies. Effort is a non-acquisition program that is the operational instantiation of FORCEnet. The end-state is a distributed network of weapons, sensors, Command and Control (C2), platforms and warriors.

Trident Warrior (TW): TW enables early delivery of Net-Centric Operation/Warfare (NCO/W) capabilities to the warfighter via Fleet-directed Trident Warrior operational events with an emphasis on delivering Maritime Domain Awareness (MDA) with Maritime Operations Center (MOC) capability.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	77.245	71.645	51.697	-	51.697
Current President's Budget	75.683	71.645	68.463	-	68.463
Total Adjustments	-1.562	0.000	16.766	-	16.766
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.424	0.000			
• SBIR/STTR Transfer	-1.986	0.000			
• Program Adjustments	0.000	0.000	8.225	-	8.225
• Rate/Misc Adjustments	0.000	0.000	8.541	-	8.541

Change Summary Explanation

Technical: Not applicable.

Schedule:
TACTICAL SUPPORT CENTER (Project 0486):
FRP is scheduled for 4th Qtr FY12.

Global Command and Control System - Maritime (GCCS-M) (Project 0709):
In August 2011, ASN (RD&A) issued Fielding Decision Review (FDR) approval to field GCCS-M 4.1 Force Level (FL) and Unit Level (UL) configurations.

Group Level Final Engineering Drop delivered to government; Development Test, Technical Evaluation and Operational Test in FY 2013. Operational Assessment was dropped in FY 2013 as Director of Operation Test & Evaluation (DOT&E) and Command Operational Test & Evaluation Force (COTF) determined it is not needed for GL 4.1. FDR is an FY 2013 funded effort which slipped to FY 2014.

Global Force Management - Data Initiative (GFM-DI) development included in the GCCS-M baseline in FY 2012.

Mission Planning (Project 2213):
System Development:
JMPS FW 64 Bit Prototype - Details added to the schedule. Effort runs from 1Q FY13-4Q FY13 - Determine the complexity and create prototypes for the migration of components from the existing 32-bit JMPS to a 64-bit Mission Planning Environment (MPE). The transition to a 64-bit system is needed to address current and future memory and processing limitations.

JMPS FW 64 Bit Architecture Development- 1Q FY15-4Q FY16/ 3Q FY14-4Q FY17 - Development is required to transition from current FW 32 bit to 64 bit architecture. The transition to a 64-bit system is needed to address current and future memory and processing limitations.
JMPS FW 64 Bit Mission Planning Environment (MPE) Integration/Validation- 1Q FY17-4Q FY17/ 1Q FY18-4Q FY18 - Delay due to JMPS FW 64 Bit Architecture Development schedule. Development is required to transition from current FW 32 bit to 64 bit architecture. The transition to a 64-bit system is needed to address current and future memory and processing limitations.
JMPS V1.4 Development Test- 1Q FY12-3Q FY12/ Removed from schedule - Due to USAF Increment IV (PE 0208006F) Critical Change Review, FW V1.4 will not achieve Windows 7 transition need date. FW 1.3.5 will be utilized in lieu of FW 1.4 during Windows 7 transition.
JMPS V1.4 MPE Integration/Validation - 1Q FY12-4Q FY16/ Removed from schedule - Due to USAF Increment IV (PE 0208006F) Critical Change Review, FW V1.4 will not achieve Windows 7 transition need date. FW 1.3.5 will be utilized in lieu of FW 1.4 during Windows 7 transition.
JMPS V1.3.5 Mission Planning Environment (MPE) Integration/Validation- 1Q FY12-4Q FY13/ 1Q FY12-4Q FY15 - An extension of Windows XP is planned to allow all naval aircraft to be supported during the Windows 7 transition. Windows XP custom support contract with Microsoft to extend use of Windows XP-based JMPS MPEs including FA-/EA-18, EA-6B, E-2C, E-2D and AV-8B past April 2014 end-of-service for Windows XP.
JMPS V1.2.4 Mission Planning Environment (MPE) Integration/Validation- 1Q FY12-4Q FY13/ 1Q FY12-2Q FY14 - An extension of Windows XP is planned to allow all naval aircraft to be supported during the Windows 7 transition. Windows XP custom support contract with Microsoft to extend use of Windows XP-based JMPS MPEs including FA-/EA-18, EA-6B, E-2C, E-2D and AV-8B past April 2014 end-of-service for Windows XP.

Naval Tactical Command Support System (NTCSS) (Project 3032):
Increasing requirements in information security and functional capability have required shifts in the approach for systems design and development. The updated schedule reflects a more integrated plan to accomplish refined requirements, fact-of-life changes, and modernization of the NTCSS system. As development approaches and build requirements are solidified, changes to the schedule will reflect more accurate time frames for multiple NTCSS system builds.

Maritime Tactical Command and Control (MTC2) (Project 3323):
Acquisition Milestones:
MTC2 will follow the DoD Rapid Information Technology Acquisition process. Milestone decisions are no longer applicable, but rather replaced by Build Decisions (BDs) and Fielding Decision Reviews (FDRs) for each release of new capabilities to the user community. The MTC2 Materiel Development Decision (MDD) will be documented and supported by a Build Decision (Release 1) which will authorize entry into the program's Incremental & Iterative Developmental & Deployment (IIDD) phase and development of intial software capabilities required by the fleet. A FDR will be conducted following the successful completion of an Operational Test. Subsequent tentative BDs/FDRs have been added to the schedule, which will be further updated as funding and user needs are finalized in the future. If subsequent decisions are made to not follow the DoD Rapid Information Technology Acquisition process, the standard DoD 5000 acquisition process will be used.
Schedule:
Build Decision Release 2 and Fielding Decision Release 1 moved to the right to reflect lessons learned from previous Program Executive Office Command, Control, Communications, Computers, & Intelligence (PEO C4I) pilot programs following the DoD Rapid Informaton Technology Acquisition process. The following Build Decisions, Fielding Decision Reviews, Operational Tests, and Development Tests are linked together and align to the acquisition process. Engineering Drops 2, 4, and 5 were moved to align with the Build and Fielding Decisions Reviews. The Build Decisions and Fielding Decisions were also

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
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moved to align with the contracting process of six months from release to implementation of a task order. The Developmental Tests were exchanged with the Operational Assessments to align with the Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management Systems. Developmental Test 4 and Operational Assessment 4 were moved to the right to reflect a 12-18 month test and delivery cycle.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 0486.: *Tactical Support Center*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0486.: *Tactical Support Center*	111.068	12.752	5.245	5.027	-	5.027	5.032	6.260	6.403	6.514	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Tactical/Mobile program provides evolutionary systems and equipment upgrades to support Maritime Component Commanders (Expeditionary Ashore) and Maritime Patrol and Reconnaissance Force Commanders with the capability to plan, direct, and control the tactical operations of Joint and Naval Expeditionary Forces and other assigned units within their respective area of responsibility. These operations include littoral, open ocean, and over land all-sensor surveillance, anti-surface warfare, over-the-horizon targeting, counter-drug operations, power projection, antisubmarine warfare, mining, search and rescue, and special operations.

The missions are supported by the Tactical Operations Centers (TOCs), the Mobile Tactical Operations Centers (MTOCs), and the Joint Mobile Ashore Support Terminals (JMASTs). Services provided include analysis and correlation of diverse sensor information; data management support; command decision aids; rapid data communication; mission planning, evaluation and dissemination of surveillance data and threat alerts to operational users ashore and afloat. Tactical/Mobile Command and Control systems are based on the Global Command and Control System - Maritime (GCCS-M) architecture, which is Defense Information Infrastructure (DII) Common Operating Environment (COE) compliant.

TOCs and their equivalents provide Command, Control, Communications, Computers and Intelligence (C4I) capability, air-ground, satellite and point-to-point communications systems; sensor analysis capabilities; avionics and weapons system interfaces and facilities equipment. MTOCs and their equivalents are scalable and mobile versions of the TOC for operations from airfields that do not have TOC support. This program assures that existing TOCs and MTOCs are modernized to fulfill their operational requirements. TOC/MTOC will continue to provide the ground Command and Control capabilities and C4I interfaces for the Maritime Patrol and Reconnaissance Force (MPRF) Family of Systems (FOS) aircraft and systems evolution including P-3C aircraft updates to sensors and weapons systems, such as the Anti-Surface Warfare Maritime Improvement Program (AMIP), and the Command Control Communications Computers for Anti-Submarine Warfare (C4 for ASW) P-3C aircraft upgrades, P-8A Multi-mission Maritime Aircraft (MMA) Increment 1, as well as development of emergent, ground C4I support capabilities for the P-8A Multi-mission Maritime Aircraft (MMA) Increment 2 and the Broad Area Maritime Surveillance Unmanned Aerial System (BAMS UAS).

The Joint Mobile Ashore Support Terminal (JMAST) supports the Fleet Commanders, Naval Component Commanders, and other military commanders from forward deployed bases or operational sites ashore that are not equipped with C4I facilities. It provides the Navy Component, and other military commanders with flexible, mobile, organic response, to command, control and communicate with assigned forces via voice, video, and data media forms, during all aspects of military operations, including joint, combined, and coalition operations.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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The TacMobile program was designated as an Acquisition Category (ACAT) III weapons system program in July 2004 and is no longer directly associated with the GCCS-M program. The TacMobile program follows an Evolutionary Acquisition approach, which provides a mechanism for adding a series of future capabilities that maintain and enhance the operational relevance of the systems provided, as well as augments improvements in airborne networking. Transformation of the TOC/MTOC Force to a more mobile, scalable, and Network-centric Services Oriented Architecture (SOA) configuration, convergence of TOC, MTOC to a single configuration, and as an integral component of the Maritime Patrol and Reconnaissance Force (MPRF) Family of Systems (FOS), operational C4I integration support for new and upgraded Maritime Patrol and Reconnaissance Aircraft (MPRA) such as MMA (Multi-mission Maritime Aircraft), AIP, BAM UAS as well as other Command and Control (C2) and fighter aircraft are primary objectives.

FY14: Funding supports TacMobile systems development and prototyping to achieve interoperability with P-8A MMA Increment 2 and the BAMS UAS, increased modularity, support for additional security enclaves, and enhancing flexibility and mobility, to offset the size/weight/cube of additional required aircraft interfaces developed to support P-8A MMA operations. Network-centric Services Oriented Architecture (SOA) and airborne C4I integration efforts continue as improvements to airborne and Intelligence/Surveillance/Reconnaissance (ISR) networking technologies are matured. Will achieve interoperability with emerging MPRF Aircraft and Sensors while reducing TacMobile footprint enhancing Mobility capability.
The DARK FUSION JCTD will provide intelligence analysts, joint warfighters, Combatant Commanders (COCOM) and other interagency senior decision makers significant maritime domain awareness (MDA) improvement, aimed at increased awareness of certain vessels and "dark" targets (e.g., smaller vessels, "fast movers/go fasts", semi-submersibles, non-emitting vessels, etc.) not being detected by current means, using newly developed and under-utilized data sources. These vessels may not be emitting their normal complement of maritime signals (e.g., not participating in the electro-magnetic spectrum).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Net Ready	0.789	0.638	0.638
Articles:	0	0	0
FY 2012 Accomplishments: Communications: Conducted Operational Test and Evaluation of Cipher Text Routing Wide Band Beyond Line of Sight (BLOS) Internet Protocol (IP) capabilities (Increment 2.1). Continued to investigate Joint Tactical Radio System (JTRS) and other software definable radio options for incorporation into TacMobile communications architecture (Tech Refresh 2.1.1). Continued investigation of requirements for Range of Warfare Command and Control (ROWC2) reach-back IP connectivity options for communications continuity.			
FY 2013 Plans: Communications: Continue study of alternatives for identified Joint Tactical Radio System (JTRS) and/or other software definable radio options for incorporation into TacMobile communications architecture. Continue study for Range of Warfare Command and Control (ROWC2) reach-back Internet Protocol (IP) connectivity options for communications continuity. (TR 2.1.1) Commence Maritime Patrol and Reconnaissance Force (MPRF)/Air Anti Submarine Warfare (ASW) Community of Interest (COI) data model development (expansion of the ASW COI data model) Commence Tactical Operations Center (TOC)/Mobile Tactical Operations Center (MTOC) Content Management Extensible Markup Language (XML) Data Dictionary and XML Schema development in support of the MPRF/Air ASW COI data model. (TR 2.1.1) Conduct Services Oriented Architecture (SOA) instantiation on			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 0486.: *Tactical Support Center*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
TacMobile prototype system for refinement of design implementation. Conduct initial SOA testing with MOLE lab and other netted labs. Commence update of Concept of Operations (CONOPS)/ Concept of Employment (CONEMP)/ Concept of Use (CONUS) including capabilities for higher than secret operations. (Inc rement 3) ***FY 2014 Plans:*** Continue Services oriented Architecture (SOA) design refinement. Continue Family of Systems collaboration on Maritime Patrol and Reconnaissance Force (MPRF)/Air Anti Submarine Warfare (ASW) Community of Interest (COI) data model development to support SOA environment with Extensible Markup Language (XML) schema and Tactical Operations Center (TOC)/Mobile Tactical Operations Center (MTOC) Content Management XML Data Dictionary. (Increment 3)			
Title: Tactical Mobile Acoustic Support System (TACMASS)	0.736	0.736	0.736
Articles:	0	0	0
FY 2012 Accomplishments: Conducted Operational Test and Evaluation of capabilities to support data standards and media interfaces for P-8A Multi mission Aircraft (MMA) Increment 1 Intelligence/Surveillance/reconnaissance (ISR) and Anti Submarine Warfare (ASW) sensor systems (Increment 2.1). Continued development of enhanced broadband processing capabilities. Continued Integration of Acoustic Intercept System updated screeners. Continued Integration of analysis capabilities to support evolving data standards and media interfaces for Maritime Patrol Aircraft Intelligence/Surveillance/reconnaissance (ISR) and Anti Submarine Warfare (ASW) sensor systems. Continued development and integration of Improved and Advanced Multi-Static Acoustic Analysis capabilities required to support fielding of P-8A Multi mission Aircraft (MMA) Increment 2. Continued development of High Altitude ASW capabilities (Tech Refresh 2.1.1). ***FY 2013 Plans:*** Conduct development testing of selected enhanced broadband processing capabilities. Begin integration and developmental testing of Acoustic Intercept System updated screeners. Continue development and integration of analysis capabilities to support evolving data standards and media interfaces for Maritime Patrol Aircraft Intelligence/Surveillance/Reconnaissance (ISR) and Anti Submarine Warfare (ASW) sensor systems. Continue integration and begin developmental testing of Improved and Advanced Multi-Static Acoustic Analysis capabilities required to support fielding of P-8A Multi mission Aircraft (MMA) Increment 2. Continue integration and begin developmental testing of High Altitude ASW capabilities.(Tech Refresh 2.1.1) Establish Analysis Of Alternatives for expeditionary post flight analysis capability. Begin requirements analysis for Advance Airborne Systems (AAS). (Increment 3) ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue Multistatic Active Coherent (MAC), High Altitude Anti Submarine Warfare (HAASW), High Altitude Anti Submarine Warfare (ASW) Weapons Capability (HAAWC), and Automatic Identification System (AIS) integration system testing to support fielding of P-8A Increment 2. Down select alternative on expeditionary post flight analysis capability. (Tech Refresh 2.1.1)			
Title: Aircraft Interfaces	0.583	0.583	0.583
Articles:	0	0	0
FY 2012 Accomplishments: Media: Conducted Operational Test and Evaluation of new ground support capabilities, to support those capabilities being developed for Maritime Patrol and Reconnaissance Aircraft (MPRA) incorporating P-8A Multi-mission Maritime Aircraft (MMA) Increment 1 (Increment 2.1). Continued to evaluate interface requirements to support Broad Area Maritime Surveillance Unmanned Aerial System (BAMS UAS) to ensure platform Warfighting wholeness. Continued to evaluate and assess network-centric interfaces. Continued analysis of integration requirements for P-8A MMA Increment 2. Began planning for development of those interfaces required to support P-8A MMA Increment 2 (Tech Refresh 2.1.1).			
FY 2013 Plans: Media: Continue to evaluate interfaces required to support Broad Area Maritime Surveillance Unmanned Aerial System (BAMS UAS) to ensure platform Warfighting wholeness. Continue to evaluate and assess network-centric interfaces.(Tech Refresh 2.1.1). Begin development of those interfaces required to support P-8A Increment 2. Begin requirements analysis for Advanced Airborne Systems (AAS). Begin analysis of integration requirements for P-8A Increment 3. (Increment 3)			
FY 2014 Plans: Media: Complete development of those interfaces required to support P-8A Increment 2.(Tech Refresh 2.1.1) Continue requirements analysis for Advanced Airborne Systems (AAS). Continue analysis of integration requirements for P-8A Increment 3. (Increment 3)			
Title: Tactical Data Links	0.158	0.158	0.160
Articles:	0	0	0
FY 2012 Accomplishments: Conducted Operational Test and Evaluation of TADIL capabilities to support data standards and media interfaces for P-8A Multi mission Aircraft (MMA) Increment 1 and legacy P-3C Orion Intelligence/Surveillance/reconnaissance (ISR) and Anti Submarine Warfare (ASW) tactical data exchange (Increment 2.1). Began assesment in preparation for prioritization and down select Analysis of Alternatives (AoA) options for development of TacMobile TADIL transition roadmap (Increment 3).			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue assessment in preparation for prioritization and down select Analysis of Alternatives (AoA) options for development of TacMobile TADIL transition roadmap. (Increment 3) ***FY 2014 Plans:*** Study LINK-11 sundown plan, impacts on TacMobile, and potential adoption of LINK-22 /NATO Improved Link Eleven (NILE). Assess implementation of LINK-16 Concurrent Multi-Netting (CMN), adoption of Multifunctional Information Distribution System Joint Tactical Radio System (MIDS JTRS), and adoption of Tactical Targeting Network Technology (TTNT).(Increment 3)			
Title: Enterprise Solutions	0.586	0.581	0.580
Articles:	0	0	0
FY 2012 Accomplishments: Conducted Operational Test and Evaluation of network infrastructure to meet increased ISR data volume, provide redundant back-up and disaster recovery QOS. Conduct operational testing and evaluation of network infrastructure to meet increased Intelligence Surveillance Reconnaissance (ISR) data volume, provide redundant back-up and disaster recovery Quality of Service (QOS), and architectural updates to maintain evolving information assurance standards. (Increment 2.1). Began design for development of tactical and mobile architectural networking infrastructure that complies with net ready, Defense Information Systems Agency (DISA) and Navy Net-Centric Operating standards that support evolutionary transition to a Services Oriented Architecture with Cross Domain accessibility . Began study and design for development of data at rest storage, data content management and security requirements for P-8A Increment 2.0 and Broad Area Maritime Surveillance Unmanned Aircraft System mission data (Tech Refresh 2.1.1). Assessed current available options for incorporation of appropriate Distributed Common Ground System Navy (DCGS-N) capabilities (Increment 3). ***FY 2013 Plans:*** Conduct integration and developmental testing of tactical mobile networking infrastructure to comply with net ready, DISA and Navy Net-Centric Operating standards that support evolutionary transition to a Consolidated Afloat Network Enterprise Services (CANES) compatible Services Oriented Architecture (SOA) with Multi-level Enclaves (MLE) accessibility. Begin developmental testing of data at rest storage, data content management, and security requirements for P-8A Increment 2. Assess available options for incorporation of appropriate Distributed Common Ground System Navy (DCGS-N) capabilities. (Increment 3) ***FY 2014 Plans:*** Develop requirements for assessed option preference of appropriate Distributed Common Ground System Navy (DCGS-N) capabilities. Continue development of Mature Multi Level Enclave (MLE) design. Conduct Analysis of Alternatives on Mass Storage requirements for TacMobile including P8 Inc 3 and Advanced Airborne Sensor (AAS). (Increment 3)			
Title: Command and Control (C2)	0.408	0.402	0.402
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Conducted Operational Test and evaluation of Global Command and Control System - Maritime (GCCS-M) 4.0.3 to provide Intelligence Preparation of the Battle Space capabilities, access to Signal Intelligence (SIGINT), Electronic Warfare (EW), and General Military Intelligence database products, and COP management, display, and processing capabilities that meet information assurance standards and maintain interoperability (Increment 2.1). Continued integration of follow on Command and Control (C2) prototype. Developed Analysis of Alternatives (AoA) for capabilities to support Maritime Patrol and Reconnaissance Force (MPRF) Commander Task Force (CTF) C2 requirements an C2 track data correlation and fusion tool options. (Tech Refresh 2.1.1/ Increment 3.0) ***FY 2013 Plans:*** Identify Global Command and Control System - Maritime (GCCS-M) 4.0.3 replacement options to provide Intelligence Preparation of the Battle Space capabilities, access to Signal Intelligence (SIGINT), Electronic Warfare (EW), and General Military Intelligence database products, and COP management, display, and processing capabilities that meet information assurance standards and maintains interoperability. Continue integration of follow on Command and Control (C2) prototype.(Tech refresh 2.1.1) Begin developmental test and integration of a correlator, to support Maritime Patrol and Reconnaissance Force (MPRF) Commander Task Force (CTF) C2 requirements an C2 track data correlation and fusion tool options. (Increment 3) ***FY 2014 Plans:*** Begin requirements analysis for AAS as part of Multi Level Enclave (MLE) system development. Complete Global Command and Control System - Maritime (GCCS-M) replacement option design analysis in TM architecture. (Increment 3)			
Title: Maritime Patrol and Reconnaissance Force (MPRF) Interoperability/TacMobile Footprint Reduction	3.238	2.147	1.928
Articles:	0	0	0
FY 2012 Accomplishments: Conducted operational test and evaluation of Maritime Patrol ASW mission planning user environment, Maritime Patrol weapons planning environment, and TacMobile systems Aircraft Pre-flight Insertion Data outputs(Increment 2.1). Continued design study for development of P-8A Multi mission Aircraft (MMA) Increment 2 mission planning interoperability technical upgrades. Continueddesign for integration of modular and hardware independent solutions to reduce mobile system architecture footprint. Continued design for convergence of Tactical Operations Center and Mobile Tactical Operations Center architecture toward common baseline to reduce platform unique training requirements and duplicative life cycle logistics costs. Began development of automated TacMobile system functionality to reduce operator workload, to offset increasing Maritime Patrol and Reconaissance Aircraft (MPRA) Intelligence Surveillance and Reconnaissance (ISR) Mission/Function/Task growth. Continued design to achieve			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
reduction and consolidation of MPRA media interface devices and to streamline data transfer rates. Began development of functionality that supports multiple security enclaves in an expeditionary operating environment (Tech Refresh 2.1.1/Increment 3). ***FY 2013 Plans:*** Conduct developmental testing and evaluation of P-8A Multi mission Aircraft Increment 2 and Broad Area Maritime Surveillance Unmanned Aerial System (BAMS UAS) mission planning interoperability upgrades. Begin developmental testing and integration of modular and hardware independent solutions to reduce mobile system architecture footprint. Continue developmental Testing for convergence of Tactical Operations Center and Mobile Tactical Operations Center architecture toward common baseline to reduce platform unique training requirements and duplicative life cycle logistics costs. Conduct Analysis of Alternatives of automated TacMobile system functionality to reduce operator workload, to offset increasing MPRF Intelligence Surveillance and Reconnaissance (ISR) Mission/Function/Task growth. Continue design to achieve reduction and consolidation of MPRA media interface devices and to optimize data transfer rates. (Tech Refresh 2.1.1) Develop functionality that supports multiple security enclaves in an expeditionary operating environment. (Increment 3) ***FY 2014 Plans:*** Conduct full system integration of P-8A Multi mission Aircraft Increment 2 mission planning interoperability upgrades. Continue full system testing and integration of modular and hardware independent solutions to reduce mobile system architecture footprint. Complete developmental Testing for convergence of Tactical Operations Center and Mobile Tactical Operations Center architecture toward common baseline to reduce platform unique training requirements and duplicative life cycle logistics costs. Downselect Analysis of Alternatives of automated TacMobile system functionality to reduce operator workload, to offset increasing MPRF Intelligence Surveillance and Reconnaissance (ISR) Mission/Function/Task growth and develop an engineering design model. Complete implementing all hardware design optimizations which reduce and consolidate TM footprint and any MPRA media changes. Utilize technology that best optimizes data transfer rates. Continue with development of Multi Level Enclaves. (Increment 3)			
Title: Dark Fusion ***Articles:*** ***Description:*** Dark Fusion ***FY 2012 Accomplishments:*** Integrate DARK Fusion capability into the Office of Naval Intelligence S2A system Technical demonstrations, Operational demonstrations and formal assessments	6.254 0	0.000	0.000
Accomplishments/Planned Programs Subtotals	12.752	5.245	5.027

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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/0204271N/2246: *MPRF Mission Support*	11.926	18.428	18.130		18.130	18.318	17.733	18.283	18.607	Continuing	Continuing
• OPN/0204660N/2906: *TacMobile*	10.876	15.489	18.189		18.189	18.069	15.676	16.158	16.444	Continuing	Continuing

Remarks

D. Acquisition Strategy

Evolutionary Acquisition - Increment 2.0 provided enhanced Beyond Line of Sight (BLOS) Global Information Grid (GIG) reach back capability, and supports Maritime Situational Awareness connectivity enhancements for data exchange with Maritime Patrol and Reconnaissance Force (MPRF) aircraft and with Coalition data networks. It incorporates Anti Submarine Warfare (ASW) acoustical analysis improvements and new P-3 aircraft ASW interfaces. Increment 2.1 will support migration to follow on Global Command and Control System - Maritime (GCCS-M) version 4.0.3 and introduction of the P-8A Multi-mission Maritime Aircraft (MMA) Increment 1. Tech Refresh 2.1.1 will support technical engineer changes associated with the introduction of P-8A Multi-mission Maritime Aircraft (MMA) Increment 2, and the Broad Area Maritime Surveillance (BAMS) Unmanned Aerial System (UAS). Increment 3 will incorporate support for other Maritime Patrol and Reconnaissance Force (MPRF) Family of Systems (FOS) Aircraft and Systems.

The Dark Fusion Joint Capabilities Technical Demonstration (JCTD) acquisitions will be executed by the JCTD Technical Manager (TM). The TM is the Naval Research Laboratory (NRL).

E. Performance Metrics

The primary metrics utilized by the TacMobile program development process, include achieving/maintaining all required Interface Exchange Requirements (IER's) and successful achievement of 100% of Key Performance Parameters for incremental upgrade threshold capabilities, as observed by Commander Operational Test Force representatives during Operational Evaluation. TacMobile Inc 2.1 development supports increased IER requirements of 486% from 112 to 544. Development to support these new IER's tapers off in FY-12 as the Increment enters the Operational Evaluation Phase. Development focus then shifts to efforts required to retain fielded IER's and update IER's to comply with emerging and evolving standards associated with P-8A Multi-mission Maritime Aircraft (MMA) Increment 2, and the Broad Area Maritime Surveillance (BAMS) Unmanned Aerial System (UAS), other Maritime Patrol and Reconaissance Force (MPRF) Family of Systems (FOS) Aircraft and Systems, and evolving operational employment concepts.

Critical Operating Issues (COIs) and Measures of Performance (MOPs) are outlined in the Dark Fusion JCTD Implementation Directive. The JCTD will be conducting User Juries (UJs) for SME and analyst
feedback.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/CPFF	SSC LANT; Northrop Grumman; SAIC:Charleston; SC; Pax River, MD	5.384	0.614	Oct 2011	0.646	Dec 2012	0.646	Dec 2013	-		0.646	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	SSC LANT; Northrop Grumman, SAIC, BAH, Solute:Charleston, SC; Pax River, MD; San Diego, CA	28.274	0.622	Oct 2011	0.530	Dec 2012	0.531	Dec 2013	-		0.531	Continuing	Continuing	Continuing
Training Development	C/CPFF	SSC LANT; SAIC; Solute:Charleston, SC; Pax River, MD; San Diego, CA	1.361	0.400	Nov 2011	0.400	Dec 2012	0.400	Dec 2013	-		0.400	Continuing	Continuing	Continuing
Software Development	C/CPFF	SSC LANT, Northrop Grumman, SAIC, BAh, Solute:Charleston, SC; Pax River, MD; San Diego, CA	46.301	0.297	Nov 2011	0.302	Dec 2012	0.302	Dec 2013	-		0.302	Continuing	Continuing	Continuing
Integrated Logistics Support	C/CPFF	SSC LANT, SAIC:Charleston, SC; Pax River, MD	0.575	0.225	Nov 2011	0.225	Dec 2012	0.225	Dec 2013	-		0.225	Continuing	Continuing	Continuing
Configuration Management	C/CPFF	SSC LANT, SAIC:Charleston, SC; Pax River, MD	0.450	0.175	Nov 2011	0.175	Dec 2012	0.175	Dec 2013	-		0.175	Continuing	Continuing	Continuing
Technical Data	C/CPFF	SSC LANT, Northrop Grumman, SAIC:Charleston, SC; Pax River, MD	0.600	0.220	Nov 2011	0.220	Dec 2012	0.220	Dec 2013	-		0.220	Continuing	Continuing	Continuing
Studies & Analyses	C/CPFF	SSC LANT, Northrop Grumman, SAIC, Solute:Pax River, MD; San Diego CA	0.525	0.100	Nov 2011	0.100	Dec 2012	0.100	Dec 2013	-		0.100	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Tech Mgmt, Fusion, SOA, IT, Admin,Security	Various	NRL:Washington,DC	4.159	3.977	Oct 2011	0.000		0.000		-		0.000	0.000	8.136	
ACINT w/ demo support and leave behind	Various	NRL:Washington DC	1.296	1.243	Oct 2011	0.000		0.000		-		0.000	0.000	2.539	
NTM GEOINT data sources and support	Various	NRL:Washington DC	0.791	0.287	Oct 2011	0.000		0.000		-		0.000	0.000	1.078	
		Subtotal	89.716	8.160		2.598		2.599		0.000		2.599			

Remarks

During FMB14 it was determined that the Software Development, Integrated Logistics Support, Configuration Management, Technical Data, and Studies Analyses cost categories were best aligned under Product Development rather than Support.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	C/CPIF	SSC LANT; SAIC:Charleston, NC; Pax River, MD	1.400	0.256	Nov 2011	0.440	Dec 2012	0.440	Dec 2013	-		0.440	Continuing	Continuing	Continuing
Operational Test & Evaluation	MIPR	OPTEVFOR; SSC LANT; SAIC:Jacksonville, FL	4.236	1.156	Nov 2011	0.350	Mar 2013	0.157	Mar 2014	-		0.157	Continuing	Continuing	Continuing
		Subtotal	5.636	1.412		0.790		0.597		0.000		0.597			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPIF	Northrop Grumman; SAIC; BAH; Solute:Pax River,	0.680	1.522	Oct 2011	0.946	Dec 2012	0.920	Dec 2013	-		0.920	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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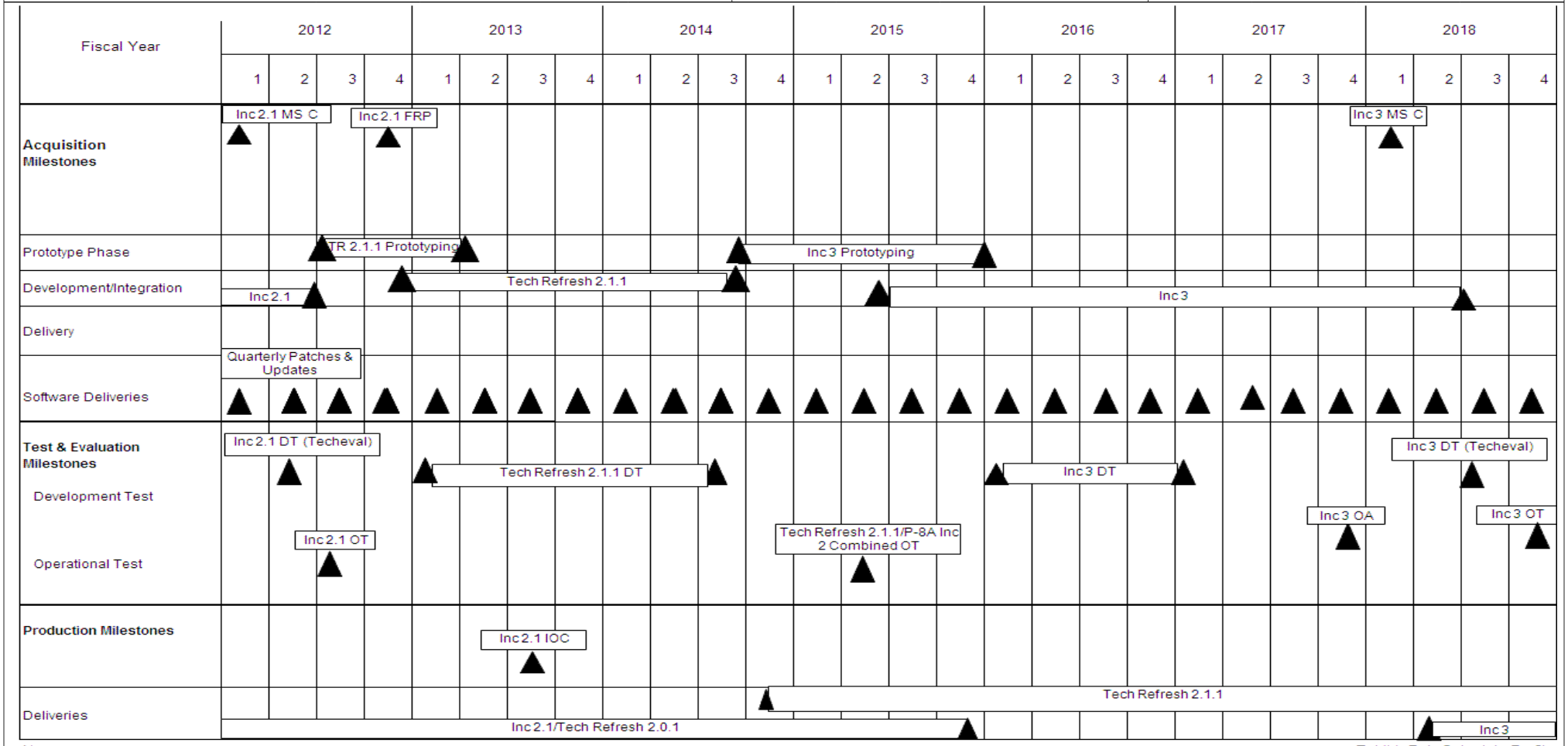
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		MD; Charleston, SC; San Diego, CA													
Government Engineering Support	WR	SSC LANT:Charleston, NC	1.321	0.384	Nov 2011	0.384	Dec 2012	0.384	Dec 2013	-		0.384	Continuing	Continuing	Continuing
Program Management Support	C/CPIF	SSC LANT; PMW750; BAH; SAIC; Solute:Charleston, NC; San Diego, CA	13.060	0.494	Oct 2011	0.494	Dec 2012	0.494	Dec 2013	-		0.494	Continuing	Continuing	Continuing
Travel	WR	PMW750:San Diego, CA	0.130	0.033	Nov 2011	0.033	Dec 2012	0.033	Dec 2013	-		0.033	Continuing	Continuing	Continuing
CONOPS/TTPs Demos & MGMT Plan	Various	NRL:Washington DC	0.175	0.161	Oct 2011	0.000		0.000		-		0.000	0.000	0.336	
Joint Operational Utility Assess. Reports	Various	NRL:Washington DC	0.200	0.198	Oct 2011	0.000		0.000		-		0.000	0.000	0.398	
Transition system engineering support	Various	NRL:Washington DC	0.150	0.144	Oct 2011	0.000		0.000		-		0.000	0.000	0.294	
MITRE STE	Various	NRL:Washington DC	0.000	0.244	Oct 2011	0.000		0.000		-		0.000	0.000	0.244	
		Subtotal	15.716	3.180		1.857		1.831		0.000		1.831			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	111.068	12.752		5.245		5.027		0.000		5.027			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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Note:
Increment 3 MS C 6 quarter shift to the right to synchronize with P-8A Increment 3 design and development.

Exhibit R-4, Schedule Profile

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0486.L39				
Milestone C (Increment 2.1)	1	2012	1	2012
Full Rate Production (Increment 2.1)	4	2012	4	2012
Milestone C (Increment 3.0)	1	2018	1	2018
TR 2.1.1 Prototyping	3	2012	2	2013
Inc 3 Prototyping	3	2014	4	2015
Development/Integration - Inc 2.1	1	2012	2	2012
Development/Integration - Tech Refresh 2.1.1	4	2012	3	2014
Development/Integration - Inc 3	2	2015	2	2018
Software Delivery (Quarterly)	1	2012	4	2018
Developmental Test (Increment 2.1 Tech Eval)	2	2012	2	2012
Operational Test (Increment 2.1)	3	2012	3	2012
Developmental Test (Tech Refresh 2.1.1)	1	2013	3	2014
Tech Refresh 2.1.1/P-8A Inc 2 Combined OT	2	2015	2	2015
Developmental Test (Increment 3.0)	1	2016	1	2017
Operational Assessment (Increment 3.0)	4	2017	4	2017
Developmental Test (Increment 3.0 Tech Eval)	3	2018	3	2018
Operational Test (Increment 3)	4	2018	4	2018
Initial Operational Capability (Increment 2.1) (TOC/MTOC)	3	2013	3	2013
Deliveries - Inc 2.1/Tech Refresh 2.0.1	1	2012	4	2015
Deliveries - Tech Refresh 2.1.1	4	2014	4	2018
Deliveries - Inc 3	1	2018	4	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Develop CONOPS/TTPS	1	2012	1	2013
Build and Test Fusion System & Sources	1	2012	1	2013
Conduct User Juries	3	2012	3	2012
Technical Demonstrations	4	2012	4	2012
Operator Training	4	2012	4	2012
Operational Demonstrations & Assessments	4	2012	4	2012
Joint Military Utility Assessment Reports	4	2012	4	2012

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 0709: *GCCS-M Maritime Applications*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0709: *GCCS-M Maritime Applications*	176.126	18.508	5.330	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	199.964
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY 2013, GCCS-M Increment 2 transitioned development of maritime tactical command and control capabilities to the Maritime Tactical Command and Control (MTC2) program (Project unit x3323).

In FY 2014, Global Force Management - Data Intitiative efforts transitioned to the Maritime Tactical Command and Control (MTC2) program (Project unit x3323).

A. Mission Description and Budget Item Justification

GCCS-M is the Maritime implementation of the Global Command and Control System (GCCS) Family of Systems (FoS). It supports decision making at all echelons of command with a single, integrated, scalable C4I system that fuses, correlates, filters, maintains and displays location and attribute information on friendly, hostile and neutral land, sea and air forces, integrated with available intelligence and environmental information. It operates in near real-time and constantly updates unit positions and other situational awareness data. GCCS-M also records data in appropriate databases and maintains a history of changes to those records. System users can then use the data to construct relevant tactical pictures using maps, charts, topography overlays, oceanographic overlays, meteorological overlays, imagery, and all-source intelligence information coordinated into a Common Operational Picture that can be shared locally and with other sites. Navy commanders review and evaluate the general tactical situation, plan actions and operations, direct forces, synchronize tactical movements, and integrate force maneuver with firepower. The system operates in a variety of environments and supports joint, coalition, and allied forces. GCCS-M is implemented Afloat and at Ashore fixed command centers.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: GCCS-M Increment 2	16.724	3.497	0.000
Articles:	0	0	
FY 2012 Accomplishments: Continued development, integration, and testing of GCCS-M Increment 2 for Group Level ships. Continued transition of GCCS-M Increment 2 on Force, Group and Unit Level ships to the Common Computing Environment (CCE)/Consolidated Afloat Networks Enterprise Services (CANES) environment. Continued developing and testing interfaces with combat and weapon systems (AEGIS, Tomahawk and BMD) and systems for other Services and Agencies. Continued investigating and adopting Service Oriented Environment (SOE) to further the continued development of maritime tactical command and control capabilities.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 0709: *GCCS-M Maritime Applications*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Complete development, integration, and testing of GCCS-M Increment 2 for Group Level ships. Complete transition of GCCS-M Increment 2 on Force, Group and Unit Level ships to the Common Computing Environment (CCE)/Consolidated Afloat Networks Enterprise Services (CANES) environment. Complete assimilation of requirements for developing new interfaces with PEO IWS Combat Systems (AEGIS) and systems for other Services, Agencies, and traditional and non-traditional partners. Investigate and adopt Service Oriented Environment (SOE) to further the continued development of maritime tactical command and control capabilities.			
Title: Global Force Management - Data Initiative (GFM-DI)	1.784	1.833	0.000
Articles:	0	0	
FY 2012 Accomplishments: Began requirements analysis and evaluation necessary prior to the design, development and implementation of Global Force Management - Data Initiative (GFM-DI) beginning in FY 2013.			
FY 2013 Plans: Perform systems engineering and architecture efforts to analyze GFM-DI requirements and begin architecture development in order to support Naval integration and extension of enterprise force structure data.			
Accomplishments/Planned Programs Subtotals	18.508	5.330	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2618: *Navy Command and Control System (GCCS-M only)*	5.938	8.150	5.515		5.515	5.910	3.428	2.206	2.136	4.873	43.710

Remarks

D. Acquisition Strategy

Increment 2 delivers two different materiel solutions: (1) Force Level, based on the Global Command and Control System-Joint (GCCS-J) 4.2 or higher software, and (2) Group and Unit Level, based on the Office of Naval Research (ONR) extensible Common Operational Picture (XCOP) software. This approach satisfies the current validated requirements, supports the accelerated retirement of legacy systems, and reduces overall risk to the program. Each solution will integrate maritime-specific capabilities and will be scalable to the ship class.

The Global Command and Control System-Maritime (GCCS-M) Program Office promotes full and open competition by competitively awarding software and Fleet support engineering services contracts. Additionally, the Program Office has awarded a Command and Control (C2) Indefinite Delivery Indefinite Quantity (IDIQ) Multi-Award Contract (MAC) from which two delivery orders were awarded to SAIC, one of the C2 IDIQ MAC awardees.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 0709: *GCCS-M Maritime Applications*

E. Performance Metrics

GCCS-M Increment 2 leverages software investments by Defense Information Systems Agency (DISA) and ONR to realize both the Force Level and Group/Unit Level material solutions. This greatly reduces the integration and testing costs associated with each software release. The Force Level solution will reside on Common Computing Environment/Consolidated Afloat Networks and Enterprise Services (CCE/CANES) architecture; the Group/Unit Level solution will be implemented on the current/future infrastructure. These Increment 2 software-only solutions eliminate the GCCS-M hardware procurement, installation and sustainment costs.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 0709: *GCCS-M Maritime Applications*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	SSC:SAN DIEGO, CA	49.704	6.051	Nov 2011	2.297	Nov 2012	0.000		-		0.000	0.000	58.052	
Software Development	SS/CPFF	NGMS:SAN DIEGO, CA	82.881	0.000		0.000		0.000		-		0.000	0.000	82.881	
Software Development	C/CPIF	SAIC:SAN DIEGO, CA	9.898	3.747	Sep 2012	0.000		0.000		-		0.000	0.000	13.645	
Software Development	WR	SSC:SAN DIEGO, CA	0.000	6.793	Nov 2011	2.298	Jan 2013	0.000		-		0.000	0.000	9.091	
Systems Engineering	C/CPFF	MITRE:SAN DIEGO, CA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
		Subtotal	142.483	16.591		4.595		0.000		0.000		0.000	0.000	163.669	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	SSC:SAN DIEGO, CA	2.675	0.743	Nov 2011	0.510	Nov 2012	0.000		-		0.000	0.000	3.928	
Operational Test & Evaluation	C/CPIF	COTF:NORFOLK, VA	5.705	0.524	Nov 2011	0.150	Nov 2012	0.000		-		0.000	0.000	6.379	
		Subtotal	8.380	1.267		0.660		0.000		0.000		0.000	0.000	10.307	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	SeaPort:SAN DIEGO, CA	3.923	0.000		0.000		0.000		-		0.000	0.000	3.923	
Program Management Support	C/CPFF	SeaPort:SAN DIEGO, CA	21.239	0.650	Nov 2011	0.075	Nov 2012	0.000		-		0.000	0.000	21.964	
Acquisition Workforce	Various	UNKNOWN:UNKNOWN	0.101	0.000		0.000		0.000		-		0.000	0.000	0.101	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 0709: *GCCS-M Maritime Applications*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	25.263	0.650		0.075		0.000		0.000		0.000	0.000	25.988	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	176.126	18.508		5.330		0.000		0.000		0.000	0.000	199.964	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		**DATE:** April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604231N: *Tactical Command System*	**PROJECT** 0709: *GCCS-M Maritime Applications*

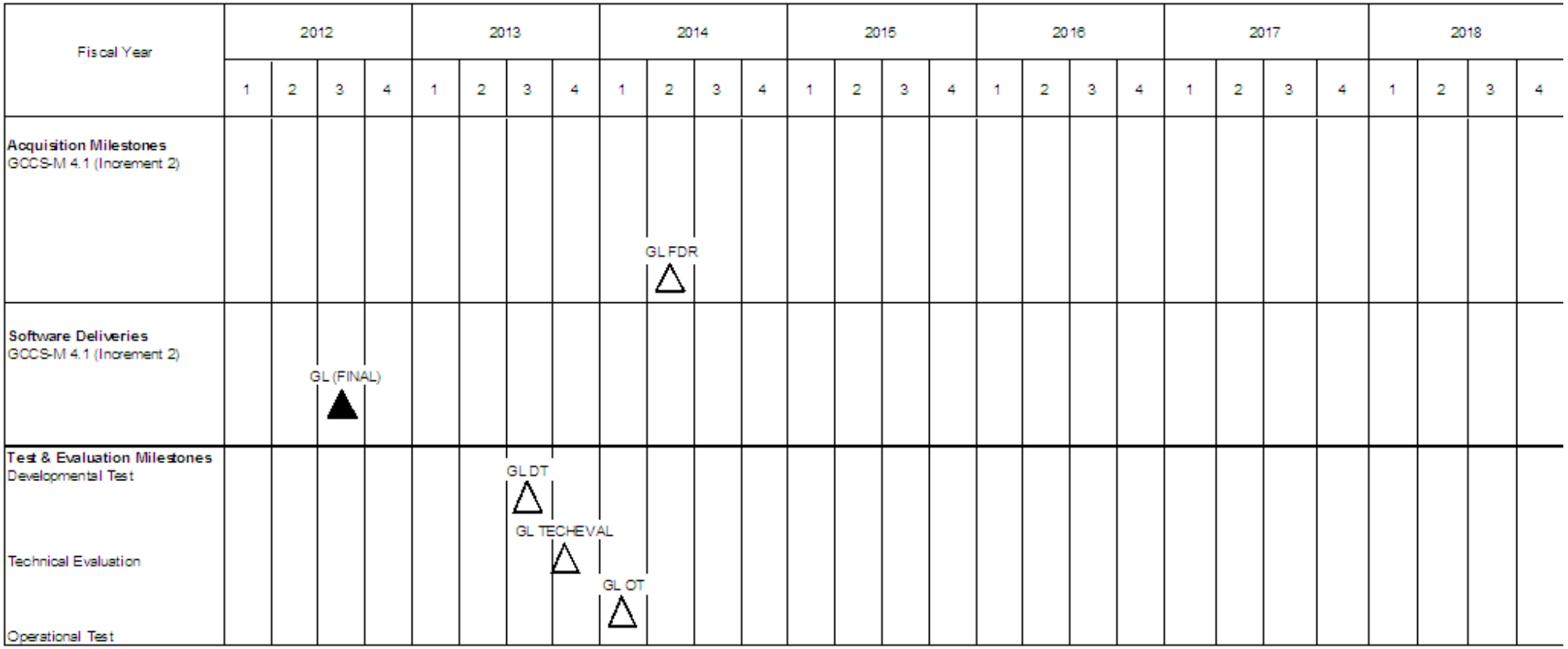


EXHIBIT R-4, Schedule Profile

Legend:

GL - Group Level
DT - Developmental Test
TECHEVAL - Technical Evaluation
OT - Operational Test
FDR - Fielding Decision Review

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604231N: *Tactical Command System*	**PROJECT** 0709: *GCCS-M Maritime Applications*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0709				
Group Level - Software Delivery (FINAL)	3	2012	3	2012
Group Level - Development Test	3	2013	3	2013
Group Level - Technical Evaluation	4	2013	4	2013
Group Level - Operational Test	1	2014	1	2014
Group Level - Fielding Decision Review	2	2014	2	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2213: *Mission Planning*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2213: *Mission Planning*	231.944	19.116	25.195	20.059	-	20.059	37.463	26.211	24.845	22.919	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Mission Planning: The Joint Mission Planning System (JMPS) is the designated automated mission planning system for the Navy. JMPS enables weapon system employment by providing the information, automated tools, and decision aids needed to rapidly plan aircraft, weapon, or sensor missions, load mission data into aircraft and weapons, and conduct post-mission analysis. JMPS is a mission critical system which is a co-development effort between the United States Navy (USN) and United States Air Force (USAF). Common requirements are identified and capabilities are developed and prioritized in an evolutionary approach. An individual JMPS Mission Planning Environment (MPE) is a combination of the JMPS framework, common capabilities, and the necessary system hardware required to satisfy mission planning objectives. Most Tactical Naval Aviation platforms are dependent solely on JMPS to plan precision guided munitions, sensor systems, tactical data links, secure voice communications, and basic Safety of Flight functions. The following type/model/series (T/M/S) naval aircraft are supported by JMPS: AH-1W, F/A-18 A-F, E-2C, EP-3E, EA-6B, AV-8B, S-3, V-22, Chief of Naval Air Training (CNATRA), EA-18G, MV-22, C-2, MH-53E, P-3, Aircraft Carrier Intelligence Center (CVIC), SH-60B/F, HH-60H, CH-53D/E, CH-46E, UH-1N, VH-3/VH-60, AH-1Z, UH-1Y, MH-60R/S and E-2D. All of the aforementioned T/M/S are required to transition to Microsoft Windows 7 before Microsoft XP support ends April 2014 by using Framework (FW) Version 1.3.5. An extension of Windows XP is planned to allow all naval aircraft to be supported during the transition. Future JMPS platforms include: MQ-4C (Triton) and H-53K. The next JMPS architecture version will support net-centric goals by providing route "publish and subscribe" capabilities, transition to 64 bit and emerging technology and Information Assurance (IA) requirements. Funding profile includes 64 bit development which requires a complete software restructure to address memory limitations and system errors resulting in JMPS computer crashes. Failure to move to 64 bit will result in an inability to support future advanced platform mission planning needs based on processing space and capability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: JMPS Framework (FW) & Common Capabilities Development	1.727	0.500	1.400
Articles:	0	0	0
Description: Due to the end of Microsoft support for Windows XP in April 2014, there is a requirement to change to Windows Operating System (OS) 7. FW Version 1.3.5 incorporates Windows OS 7 and provides additional capabilities for all naval aircraft to include air drop, air refueling and enhanced installation. Funding for FW will be used to support system engineering processes, management interface controls, software architectural analysis, requirements management and a centralized website for Mission Planning Environment (MPE) developers. FW 1.4 will be incorporated in future FW versions to address migration to .NET environment and to enable interoperability improvements through utilization of services. FW 64 bit development efforts will start in FY14. Common Capabilities software updates augment core mission planning capabilities across multiple aircraft.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2213: *Mission Planning*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Completed JMPS FW development and testing. Development of Common Components to support Windows 7 migration. ***FY 2013 Plans:*** Conduct FW 1.3.5 testing with the objective to Initial Operational Capability (IOC) Windows 7 compatible system. ***FY 2014 Plans:*** Start Framework 64 bit transition.			
Title: Joint Mission Planning System Expeditionary (JMPS-E) ***Articles:*** ***Description:*** JMPS Expeditionary (JMPS-E): The goal of the JMPS-E team is to produce a scalable, tailorable, mission planning and execution monitoring tool for Amphibious Squadron staffs. The primary focus of this system is to provide an automated capability to assist planners with mission analysis, course of action development and automated creation of doctrinal orders based on planning data in the system. Current expeditionary planning is done manually on paper charts. JMPS-E will provide a digital map enabling better response times to changing plans, easier distribution of planning artifacts and a reduction in human error during the planning process. The variety and geographically separated nature of forces involved with Ship to Shore Maneuver amplifies the need for web-based technologies to enable collaborative planning, improve overall situational awareness and enable the monitoring of mission execution from different locations. The primary outputs are tasking orders, route plans, battlespace geometries and decision briefs. The system will also incorporate modeling and simulation tools to rehearse and deconflict mission plans. This capability will be initially fielded using Framework Version 1.2.4. JMPS-E will start Windows 7 Operating System transition efforts in FY13. ***FY 2012 Accomplishments:*** Full Operational Capability fielding to seven Amphibious Squadrons (PHIBRONs). ***FY 2013 Plans:*** Develop, integrate and test JMPS-E Version 1.0.2 to satisfy Windows 7 requirement. ***FY 2014 Plans:*** Complete development and intermediate testing of JMPS-E Version 1.0.2 to satisfy Windows 7 requirement.	0.231 0	1.295 0	1.260 0
Title: Mission Planning Environment (MPE) Integration and Test ***Articles:*** ***Description:*** Mission Planning Environment (MPE) Integration and Test efforts support the Navy's developmental testing/ operational testing, integration and system of system testing for MPE fielding. Efforts consist of integration of components	17.158 0	23.400 45	17.399 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
provided by various developers into a platform-centric MPE and testing of the integrated MPE. MPE integration and testing results in a consistent and repeatable system configuration that enables stability and reliability. Due to the end of Microsoft support for Windows XP in April 2014, there is a Mission Planning Environment (MPE) requirement to change to Windows Operating System (OS) 7. ***FY 2012 Accomplishments:*** Integration and test of nineteen (19) MPEs: AV-8B H61 4.0 and H70 5.0, BAMS 1.0, C-2A 3.0, C/KC-130 2.0 & 3.0, E-2C 5.0, E-2D 1.0 and 2.0, EA-6B I3B6 7.0, F/A-18 H8E/2.4.0 and 25X/2.4.X and H10E/27X, Marine Helo 3.0, MH-60 R/S 2.0, MPRF 2.0, NLH 2.0, V-22 2.0, VH-3/VH-60 2.0. ***FY 2013 Plans:*** Due to the end of Microsoft support for Windows XP in April 2014, there is a MPE requirement to change to Windows Operating System (OS) 7. Additional test and requirement verifications will be required to ensure product stability to satisfy all platforms. Continue integration and test of 32 MPEs : AV-8B H61 4.0, BAMS 1.0, C-130 1.0 and 2.0, C-2A 3.0, CH-53K 1.0, CNATRA 1.0, E-2C 4.0 and 5.0, E-2D 1.0 and 2.0, EA-6B I3B5 6.0 and I3B6 7.0, F/A-18 H8E/2.4.0, 25X/2.5.0, H10E/27X/3.0 and 27X/3.1, Marine Helo 2.1, 3.0 and 4.0, MH-60R/S 1.0 and 2.0, NLH 2.0, P-3 3.0, P-8 1.0 and 2.0, TacMobile 1.0 and 2.0, V-22 1.2, 2.0 and 3.0, VH-3/VH-60 2.0. ***FY 2014 Plans:*** Integration and test of MPEs in support of 36 aircraft T/M/S.			
Accomplishments/Planned Programs Subtotals	19.116	25.195	20.059

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/287600: *Naval Mission Plng System*	8.941	9.958	14.131		14.131	14.353	14.808	11.398	11.352	Continuing	Continuing
• RDTE/3858,5302,5380: *Air Force Mission Plng Systems*	63.009	69.377	70.332		70.332	82.164	84.284	84.542	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

Engineering Manufacturing Development efforts: The strategy entails a two-phased evolutionary approach to acquire the initial Joint Mission Planning System (JMPS) development effort. Phase I was a combined United States Air Force (USAF) / United States Navy (USN) effort that obtained various studies, extensive joint requirements analysis, design to cost estimates, an architecture concept, and development statement of work. The Program's Phase I was planned to identify reduced

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2213: *Mission Planning*

costs strategies through software reuse from both USN Tactical Automated Mission Planning Systems and USAF Air Force Mission Support Systems (AFMSS) legacy mission planning programs. Additionally, this phase provided a risk reduction plan by identifying the most effective migration of existing mission planning systems. Phase I was awarded to two contractors, Post Phase I during the down select process, one contractor was selected to develop the JMPS architecture work and Version 1.0 basic flight planning components. Phase II focused on strike planning requirements (i.e., support Precision Guided Missions and other tactical data load intensive missions) in order to migrate platforms from legacy mission planning systems to JMPS. The USAF continued development of JMPS Version 1.3 and has contractual control of the program which is facilitated via a Mission Planning Enterprise Contract. The USN continued limited development in Joint Mission Planning System (JMPS) Version 1.2 which is focused on helicopter platform migrations. USN integration and fielding strategy changed to support a Mission Planning Environment focus, where framework and common components are integrated as bundled packages and fielded by airwings. The completion of Phase II is targeted for JMPS Version 1.4, which focuses on migration to a .net architecture and rejoins the multi-service enterprise to reduce costs through co-development. As platforms plan their migration to JMPS, the acquisition strategy, plan, and baseline will be updated in order to drive the retirement of legacy mission planning systems.

E. Performance Metrics

Average time to plan a flight: Threshold value is < 1 hour average time to plan a flight that includes a Military Training Route (MTR), routing to and from the MTR, kneeboard card production, Instrument Flight Rules (IFR) flight planning materials and a Data Transfer Device (DTD) Load.
Objective value is < 30 minutes average time to plan a flight that includes a MTR, routing to and from the MTR, kneeboard card production, IFR flight planning materials and a DTD Load.

Interoperability: Threshold value is 100% of top level Interoperability Exchange Requirements (IERs) designated critical will be satisfied.
Objective value is 100% of top level IERs will be satisfied.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2213: *Mission Planning*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Software Development/Common Capabilities(CCs)	MIPR	USAF:Hanscom AFB, MA	0.003	0.001	Mar 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Primary Software Development/Framework (FW)	MIPR	USAF:Hanscom AFB, MA	21.318	0.227	Feb 2012	0.439	Feb 2013	1.400	Feb 2014	-		1.400	Continuing	Continuing	Continuing
Primary Software Development/Framework (FW)	C/CPFF	American Electronic Warfare Associates:California, MD	0.000	1.499	Oct 2012	0.000		0.000		-		0.000	0.000	1.499	1.499
Primary Software Development/Joint Mission Planning System Expeditionary (JMPS-E)	MIPR	USAF:Hanscom AFB, MA	4.624	0.150	Feb 2012	0.488	Feb 2013	0.500	Feb 2014	-		0.500	Continuing	Continuing	Continuing
Award Fees 8%	MIPR	USAF:Hanscom AFB, MA	1.670	0.074	Feb 2012	0.103	Feb 2013	0.152	Feb 2014	-		0.152	Continuing	Continuing	Continuing
Primary Software Development	Various	Various:Various	19.103	2.325	Jan 2012	2.396	Jan 2013	2.281	Jan 2014	-		2.281	Continuing	Continuing	Continuing
No Longer Funded in FYDP	Various	Various:Various	83.882	0.000		0.000		0.000		-		0.000	0.000	83.882	
		Subtotal	130.600	4.276		3.426		4.333		0.000		4.333			

Remarks

6% award fees based on actual awards placed on various Hanscom AFB contracts. FY14 Primary Software Development/Framework (FW) contract in preparation for 32 to 64 bit transition.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	C/FFP	Lockheed Martin:Marlton, NJ	1.346	0.630	Jan 2012	0.000		0.000		-		0.000	0.000	1.976	1.976

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2213: *Mission Planning*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	NAWCWD:Point Mugu, CA	0.500	0.453	Nov 2011	0.447	Nov 2012	0.452	Nov 2013	-		0.452	Continuing	Continuing	Continuing
No Longer Funded FYDP	WR	SPAWAR:Philadelphia, PA	11.538	0.000		0.000		0.000		-		0.000	0.000	11.538	
		Subtotal	13.384	1.083		0.447		0.452		0.000		0.452			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Eng Integration & Test	WR	NAWCWD:Point Mugu, CA	56.808	11.207	Nov 2011	16.739	Nov 2012	11.500	Nov 2013	-		11.500	Continuing	Continuing	Continuing
Test & Evaluation	WR	COMOPTEVFOR:Norfolk, VA	1.001	0.350	Nov 2011	1.815	Nov 2012	1.397	Nov 2013	-		1.397	Continuing	Continuing	Continuing
		Subtotal	57.809	11.557		18.554		12.897		0.000		12.897			

Remarks

System Eng Integration & Test (NAWCWD) increase in FY12 and FY13 due to new MPE requirement for Operating System update (Windows 7). Test and Evaluation (COTF) increase in FY13 due to independent Operational Test events for MPEs during Windows 7 transition.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	NAWCAD:Patuxent River, MD	30.151	2.200	Nov 2011	2.768	Nov 2012	2.377	Nov 2013	-		2.377	Continuing	Continuing	Continuing
		Subtotal	30.151	2.200		2.768		2.377		0.000		2.377			

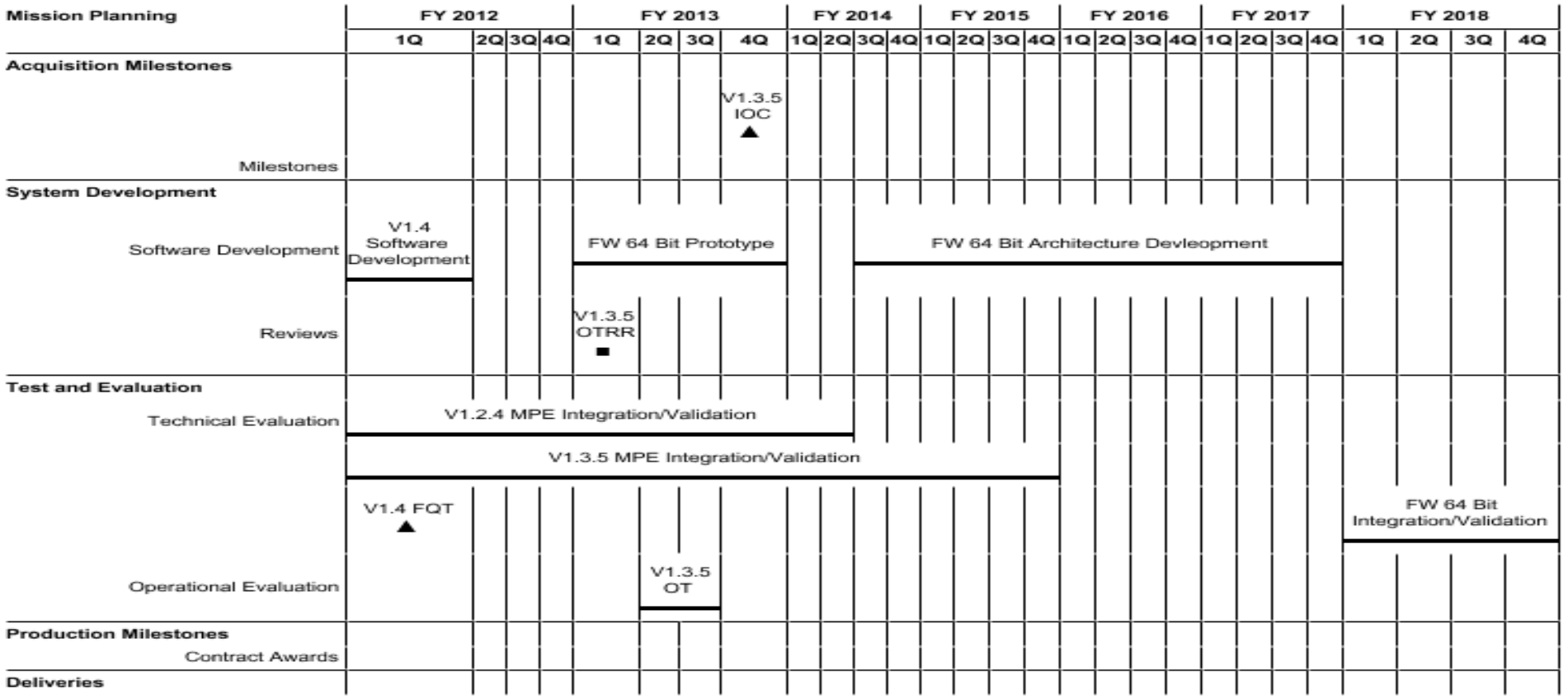
	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	231.944	19.116		25.195		20.059		0.000		20.059			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2213: *Mission Planning*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2213: *Mission Planning*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2213: *Mission Planning*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Mission Planning				
Acquisition Milestones: JMPS V1.3.5 Initial Operational Capability (IOC)	4	2013	4	2013
System Development: Software Development: JMPS FW 64 Bit Prototype	1	2013	4	2013
System Development: Software Development: JMPS V1.4 Software Development	1	2012	1	2012
System Development: Software Development: JMPS FW 64 Bit Architecture Development	3	2014	4	2017
System Development: Reviews: JMPS V1.3.5 Operational Test Readiness Review (OTRR)	1	2013	1	2013
Test and Evaluation: Technical Evaluation: JMPS V1.2.4 MPE Integration/Validation	1	2012	2	2014
Test and Evaluation: Technical Evaluation: JMPS V1.3.5 Mission-Planning Environment (MPE) Integration/Validation	1	2012	4	2015
Test and Evaluation: Technical Evaluation: JMPS V1.4 Functional Qualification Test (FQT)	1	2012	1	2012
Test and Evaluation: Technical Evaluation: JMPS FW 64 Bit Integration/Validation	1	2018	4	2018
Test and Evaluation: Operational Evaluation: JMPS V1.3.5 Operational Test (OT)	2	2013	3	2013

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2307: *Shipboard LAN/WAN*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2307: *Shipboard LAN/WAN*	0.000	0.300	0.313	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.613
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Shipboard LAN / WAN / Integrated Shipboard Network System (ISNS) provides Navy ships, including submarines, and Ashore sites with reliable, high-speed SECRET and UNCLASSIFIED Local Area Networks (LAN)s and wireless network technologies. The LAN provides Basic Network Information Distribution Services (BNIDS) and access to the Defense Information Systems Network (DISN) Wide Area Network (WAN) (Secure and Nonsecure Internet Protocol Router Network -SIPRNet and NIPRNet). It provides the network infrastructure and services to enable real-time information exchange within the ship and between afloat units, Component Commanders, and Fleet Commanders. It is a key factor in the implementation of the Navy's portion of Joint Vision 2020 and the migration of existing legacy systems into the IT-21 strategy. Program funding supports the design, development and testing of the ISNS LAN for surface ships, shore sites, and SubLAN for submarines.

The ISNS program maximizes the use of both Commercial off the Shelf (COTS) software and hardware. Engineering and technical support is provided so that existing systems will keep pace with hardware and software that continues to be commercially supported. ISNS uses a combination of high speed wired and wireless switches, routers, access points, servers, workstations and operating system software technologies to provide network access to classified and unclassified applications for use by ship's force, embarked units, embarked commanders and their staffs. Under the Navy's information modernization strategy, full synchronization of shipboard networks, mission and information applications, radio/satellite communications, and shore data dissemination infrastructure are necessary to ensure end-to-end mission capability. The Integrated Shipboard Networking System program is closely synchronized on a ship by ship basis with over 460 different systems of application configurations including the following: Global Command and Control System Maritime (GCCS-M), Navy Tactical Command Support System (NTCSS), Navy Standard Integrated Personnel System (NSIPS), Theatre Medical Information Program - Maritime (TMIP-M), Defense Messaging System (DMS), Automated Digital Network System (ADNS), Global Broadcasting System (GBS), Tactical Tomahawk Weapons Control System (TTWCS) and Information Security (INFOSEC) programs. The ISNS program provides the infrastructure to support implementation/fielding of these programs. The LAN modernization rate must keep pace with hardware and software that is supported commercially in order to provide a supportable and secure FORCEnet infrastructure. ISNS includes Afloat Core Services (ACS) which is the mechanism to deliver the FORCEnet interface to the warfighter. ACS provides a composeable warfighting environment enabling dynamic configuration of capabilities tailored to meet specific warfighting missions. As the warfighting mission changes, the capabilities or services can be re-configured on the fly to meet the new warfighting requirement. This dynamic reconfiguration of services also known as "plug and fight" meets the composeable services vision of FORCEnet. ACS also provides the common core enterprise services and technical framework to allow organizations ubiquitous access to reliable, decision-quality information through a net-based services infrastructure and applications to bridge real-time and near-real-time communities of interest (COI). ACS will empower the end user to pull information from any available source, with minimal latency, to support the mission. Its capabilities will allow Department of the Navy as well as Global Information Grid (GIG)

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2307: *Shipboard LAN/WAN*

users to task, post, process, use, store, manage and protect information resources on demand for warfighters, policy makers and support personnel. ACS will utilize a spiral process for delivering capability to the warfighter.

The ISNS Inc 1, Sensitive Compartmented Information (SCI) Networks and Combined Enterprise Regional Information Exchange System (CENTRIXS) programs began migration to ISNS Inc 2/Consolidated Afloat Networks and Enterprise Services (CANES). ISNS Inc 2/CANES will serve to transition numerous Fleet networks to a single, adaptive, available, secure computing network infrastructure while delivering enhanced technologies in: Integrated Voice, Video and Data; Common Computing Environment (CCE); ACS; and Multi-Level Security (MLS)/Cross Domain Solutions (CDS).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Integrated Shipboard Network System (ISNS)	0.300	0.313	0.000
Articles:	0	0	
FY 2012 Accomplishments: Continued development of replacement solutions for End of Life (EOL) equipment as EOL occurs. Developed replacement solutions for End of Sale (EOS) equipment/software as EOS occurs. Supported Certification and Accreditation activities for efforts under development. Continued support of at sea demonstrations.			
FY 2013 Plans: Continue development of replacement solutions for End of Life (EOL) equipment as EOL occurs. Develop replacement solutions for End of Sale (EOS) equipment/software as EOS occurs. Complete Certification and Accreditation efforts for ISNS variants.			
Accomplishments/Planned Programs Subtotals	0.300	0.313	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/3050/ISNS: *ISNS*	115.259	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	499.780

Remarks

D. Acquisition Strategy

This program will transition fully to CANES in FY13.

E. Performance Metrics

The Shipboard LAN/WAN/Integrated Shipboard Network System (ISNS) development efforts will end in FY13 and are currently 99.3% completed. The ISNS OPN program will fully transition to CANES in FY 2013. ISNS development and testing against ISNS variants as well as Early Adopter Common Computing Envrionment (CCE) testing on the Lincoln Strike Group met and exceeded all measures of effectiveness and suitability of the system.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 2307: *Shipboard LAN/WAN*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integration - Development	WR	SSC:LANT	0.000	0.042	Mar 2012	0.000		0.000		-		0.000	0.000	0.042	
		Subtotal	0.000	0.042		0.000		0.000		0.000		0.000	0.000	0.042	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation-ISNS	MIPR	JITC:Fort Huachuca, AZ	0.000	0.059	Feb 2012	0.313	Nov 2012	0.000		-		0.000	0.000	0.372	
		Subtotal	0.000	0.059		0.313		0.000		0.000		0.000	0.000	0.372	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	SRA:San Diego, CA	0.000	0.121	Mar 2012	0.000		0.000		-		0.000	0.000	0.121	
Program Management Support	C/CPFF	TBD:TBD	0.000	0.078	Sep 2012	0.000		0.000		-		0.000	0.000	0.078	
		Subtotal	0.000	0.199		0.000		0.000		0.000		0.000	0.000	0.199	

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.300		0.313		0.000		0.000		0.000	0.000	0.613	

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3032: *NTCSS (Naval Tactical Command Spt Sys)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3032: *NTCSS (Naval Tactical Command Spt Sys)*	25.008	14.061	15.015	16.600	-	16.600	7.194	1.779	0.931	0.948	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Naval Tactical Command Support System (NTCSS) is a multi-function program designed to provide standard tactical support information systems to various afloat and associated shore-based fleet activities. The mission is to provide the Navy and Marine Corps with an integrated, scalable system that supports the management of logistical information, personnel, material and funds required to maintain and operate ships, submarines, and aircraft. FY2014 funding:

(1) Supports the design, development, and testing of NTCSS Open Architecture (OA) (formerly One NALCOMIS & Single Supply Baseline) which integrates the functionality provided by several legacy logistics applications into a single application baseline to include, multi-UIC (Unit Identification Code), and the consolidation of organizational and intermediate level NALCOMIS (Naval Aviation Logistics Command/Management Information System) maintenance applications.
(2) Provides for the design, development, and testing of the Relational Administration (RADM) application upgrade providing personnel management capability to unit and force level activities.
(3) Provides for the transition of the current, client-server architecture to a service-oriented architecture (SOA) and web-based services (NTCSS OA). This will align with the initiative to bring Navy systems into a common computing environment afloat, interface with Navy Enterprise Resource Planning (ERP) ashore, and provide a more flexible system platform with greater responsiveness to security, information assurance, functional, and system requirements and with greater speed to capability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: NTCSS (Naval Tactical Command Spt Sys)	14.061	15.015	16.600
Articles:	0	0	0
Description: Maintenance and Supply Management Capability			
FY 2012 Accomplishments: Designed, developed, and tested efforts for NTCSS One NALCOMIS, multi-UIC, and enterprise database system. Continued design, development, and testing efforts for NTCSS product improvements of SOA and web-based service. Began design, development and testing efforts for Single Supply Baseline (SSB) with upgrades to Ships Store (Retail Operations Management (ROM)) and Food Services (Food Services Management (FSM)) products.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3032: *NTCSS (Naval Tactical Command Spt Sys)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue design, development, and testing efforts for NTCSS Open Architecture (OA), to include consolidation of organizational and intermediate level NALCOMIS maintenance applications, multi-UIC capability, upgrades to Ships Store (Retail Operations Management (ROM)), Food Services Management (FSM)) products, Relational Administration, and an enterprise database system. ***FY 2014 Plans:*** Continue design, development, and testing efforts for NTCSS Open Architecture (OA), to include consolidation of organizational and intermediate level NALCOMIS maintenance applications, multi-UIC capability, upgrades to Ships Store (Retail Operations Management (ROM)), Food Services Management (FSM)) products, Relational Administration, and an enterprise database system. Accelerate software development efforts for NTCSS Open Architecture (OA) by increasing the number of software development teams by three for a total of twenty-one teams.			
Accomplishments/Planned Programs Subtotals	14.061	15.015	16.600

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2611: *Naval Tactical Command Support System*	32.778	35.732	15.703		15.703	29.009	13.476	18.497	19.294	72.202	755.607

Remarks

D. Acquisition Strategy

NTCSS Open Architecture (OA) migrates existing NTCSS-Optimized to web-enabled technology, which separates server computing from end-user computing. NTCSS OA supports the DoD IT Enterprise Strategy and Roadmap (ITESR) through security architecture standardization and optimization. In addition to eliminating current IA vulnerabilities through an enhanced security posture, NTCSS OA promotes data sharing with other systems, such as Navy Enterprise Resource Program (N-ERP) and aligns with the Navy's Consolidated Afloat Network Enterprise Services (CANES). NTCSS OA utilizes the Navy Data Centers, incorporates current Information Technology (IT) best practices, and accelerates reduction of applications performing a similar function. This strategy supports the Navy's server consolidation initiatives with the elimination of NTCSS-specific servers in the Fleet.

E. Performance Metrics

NTCSS Open Architecture (OA) reduces NTCSS Aviation software baseline configuration management support by 50% by collapsing organizational and intermediate level maintenance applications into one baseline. Additionally, the NTCSS Aviation system hardware requirement realizes a 100% reduction at Fleet Readiness Centers (ashore) and Aircraft Intermediate Maintenance Departments (afloat) by leveraging utilization of Navy Data Centers (ashore) and the Navy's Consolidated Afloat Network Enterprise Services (CANES) afloat. Over the Future Years Defense Plan (FYDP), Service-Oriented Architecture (SOA) for NTCSS will lower system maintenance costs when compared to maintaining the current, client-server architecture.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3032: *NTCSS (Naval Tactical Command Spt Sys)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	SSC:North Charleston, SC	0.668	0.000		0.000		0.000		-		0.000	0.000	0.668	0.668
Systems Engineering	C/CPFF	SeaPort:San Diego, CA	1.451	0.500	Nov 2011	0.406	Nov 2012	0.406	Nov 2013	-		0.406	Continuing	Continuing	Continuing
Licenses	Various	SSC:San Diego, CA	0.700	0.000		0.000		0.000		-		0.000	0.000	0.700	0.700
Software Development	WR	SSC:Norfolk, VA	18.537	12.497	Nov 2011	13.746	Nov 2012	15.384	Nov 2013	-		15.384	Continuing	Continuing	Continuing
Integrated Logistics Support	C/CPFF	SeaPort:San Diego, CA	0.200	0.300	Nov 2011	0.243	Nov 2012	0.243	Nov 2013	-		0.243	Continuing	Continuing	Continuing
Configuration Management	WR	SSC:San Diego, CA	0.460	0.000		0.000		0.000		-		0.000	0.000	0.460	
Technical Data	WR	SSC:San Diego, CA	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	
		Subtotal	22.216	13.297		14.395		16.033		0.000		16.033			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWC:Patuxent River, MD	0.400	0.250	Nov 2011	0.203	Nov 2012	0.150	Nov 2013	-		0.150	Continuing	Continuing	Continuing
Operational Test & Evaluation	C/CPIF	COTF:Norfolk, VA	0.785	0.000		0.000		0.150	Nov 2013	-		0.150	0.000	0.935	
		Subtotal	1.185	0.250		0.203		0.300		0.000		0.300			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	SeaPort:San Diego, CA	0.896	0.000		0.000		0.000		-		0.000	0.000	0.896	0.896
Government Engineering Support	WR	SSC:San Diego, CA	0.279	0.000		0.000		0.000		-		0.000	0.000	0.279	0.279

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3032: *NTCSS (Naval Tactical Command Spt Sys)*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	SeaPort:San Diego, CA	0.432	0.514	Nov 2011	0.417	Nov 2012	0.267	Nov 2013	-		0.267	Continuing	Continuing	Continuing
		Subtotal	1.607	0.514		0.417		0.267		0.000		0.267			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	25.008	14.061		15.015		16.600		0.000		16.600			

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2014 Navy		**DATE:** April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604231N: *Tactical Command System*	**PROJECT** 3032: *NTCSS (Naval Tactical Command Spt Sys)*

Fiscal Year	2012				2013				2014				2015				2016				2017				2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones NTCSS Open Architecture (OA)																												
Engineering Milestones NTCSS OA 1.1 (One NALCOMIS 5.30)										TRR △	PRR △																	
NTCSS OA 1.2 (Single Supply Baseline Release 1)						SRR △		CDR △					TRR △	PRR △														
NTCSS OA 1.3 (One NALCOMIS 5.35)										SRR △	CDR △			TRR △	PRR △													
NTCSS OA 1.4 S(ingle Supply Baseline Release 2)												SRR △	CDR △		TRR △	PRR △												
NTCSS OA 1.5 (One NALCOMIS 5.40)												SRR △	CDR △			TRR △	PRR △											
NTCSS OA 1.6 (Single Supply Baseline Release 3)														SRR △	CDR △			TRR △	PRR △									
Test & Evaluation Milestones NTCSS OA													1.1 OT △			1.2 OT △	1.3 OT △		1.4 OT △	1.5 OT △	1.6 OT △						
Software Deliveries NTCSS OA															1.1 △			1.2 △	1.3 △		1.4 △	1.5 △	1.6 △					

Exhibit R-4, Schedule Profile

CDR: Critical Design Review PRR: Production Readiness Review SRR: System Requirements Review TRR: Test Readiness Review

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604231N: *Tactical Command System*	**PROJECT** 3032: *NTCSS (Naval Tactical Command Spt Sys)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3032				
NTCSS Open Architecture (OA) Build 1.1 - Test Readiness Review (TRR)	2	2014	2	2014
NTCSS OA Build 1.1 - Production Readiness Review (PRR)	3	2014	3	2014
NTCSS OA Build 1.1 - Operational Test (OT)	1	2015	1	2015
NTCSS OA Build 1.1 - Delivery	3	2015	3	2015
NTCSS OA Build 1.2 - System Requirements Review (SRR)	2	2013	2	2013
NTCSS OA Build 1.2 - Critical Design Review (CDR)	4	2013	4	2013
NTCSS OA Build 1.2 - Test Readiness Review (TRR)	1	2015	1	2015
NTCSS OA Build 1.2 - Production Readiness Review (PRR)	2	2015	2	2015
NTCSS OA Build 1.2 - Operational Test (OT)	4	2015	4	2015
NTCSS OA Build 1.2 - Delivery	2	2016	2	2016
NTCSS OA Build 1.3 - System Requirements Review (SRR)	2	2014	2	2014
NTCSS OA Build 1.3 - Critical Design Review (CDR)	3	2014	3	2014
NTCSS OA Build 1.3 - Test Readiness Review (TRR)	2	2015	2	2015
NTCSS OA Build 1.3 - Production Readiness Review (PRR)	3	2015	3	2015
NTCSS OA Build 1.3 - Operational Test (OT)	1	2016	1	2016
NTCSS OA Build 1.3 - Delivery	3	2016	3	2016
NTCSS OA Build 1.4 - System Requirements Review (SRR)	4	2014	4	2014
NTCSS OA Build 1.4 - Critical Design Review (CDR)	1	2015	1	2015
NTCSS OA Build 1.4 - Test Readiness Review (TRR)	3	2015	3	2015
NTCSS OA Build 1.4 - Production Readiness Review (PRR)	4	2015	4	2015
NTCSS OA Build 1.4 - Operational Test (OT)	3	2016	3	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3032: *NTCSS (Naval Tactical Command Spt Sys)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
NTCSS OA Build 1.4 - Delivery	1	2017	1	2017
NTCSS OA Build 1.5 - System Requirements Review (SRR)	4	2014	4	2014
NTCSS OA Build 1.5 - Critical Design Review (CDR)	1	2015	1	2015
NTCSS OA Build 1.5 - Test Readiness Review (TRR)	4	2015	4	2015
NTCSS OA Build 1.5 - Production Readiness Review (PRR)	1	2016	1	2016
NTCSS OA Build 1.5 - Operational Test (OT)	4	2016	4	2016
NTCSS OA Build 1.5 - Delivery	2	2017	2	2017
NTCSS OA Build 1.6 - System Requirements Review (SRR)	2	2015	2	2015
NTCSS OA Build 1.6 - Critical Design Review (CDR)	3	2015	3	2015
NTCSS OA Build 1.6 - Test Readiness Review (TRR)	2	2016	2	2016
NTCSS OA Build 1.6 - Production Readiness Review (PRR)	3	2016	3	2016
NTCSS OA Build 1.6 - Operational Test (OT)	1	2017	1	2017
NTCSS OA Build 1.6 - Delivery	3	2017	3	2017

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3320: *TRIDENT Warrior*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3320: *TRIDENT Warrior*	0.000	3.619	3.579	2.340	-	2.340	2.318	2.254	2.304	2.345	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Trident Warrior was transferred from Project 9123 into Project 3320 beginning in FY12.

A. Mission Description and Budget Item Justification

Trident Warrior enables early delivery of Information Dominance (ID) capabilities to the warfighter via Fleet-directed Trident Warrior operational events. Integrates stand-alone systems and efforts to achieve substantially enhanced capability, demonstrates/tests these capabilities in both laboratory and operational environments, and evaluates their effectiveness. Develops supporting concepts and Concept of Operations to improve warfighting effectiveness. Coordinates ID efforts with other Service/Joint/Department of Defense/National efforts to ensure Joint/Interagency/Allied/Coalition applicability and interoperability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Trident Warrior	3.619	3.579	2.340
Articles:	0	0	0

FY 2012 Accomplishments:

-Focused on operational experimentation of Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) technologies during the Navy's premier, annual Fleet Experimentation (FLEX) events. The primary goal was to validate information dominance capabilities, maritime warfighting policy and procedures, and interoperability between the United States (U.S.) and Coalition partners.

-Provided systems engineering and analysis to rapidly identify emergent fleet needs and capability shortfall, assessing risk, validating cost and delivering capability. Sought solutions for the Office of the Chief of Naval Operations/Commander, U.S. Fleet Force Command selected capability gaps and packaged them for operational use, favoring cost effective, disruptive technologies. Facilitated the successful transition of identified technology capabilities into Programs of Record. This process delivered Program Objective Memorandum recommendations and supporting roadmaps based on assessments of capability gaps with a focus on technologies that respond to irregular, catastrophic and disruptive technology insertion.

-The majority of Trident Warrior experimentation occurred during operational at-sea venues where new and emerging capabilities were integrated with current fleet units and either demonstrated or evaluated on their potential military utility. The Sea-based venue worked on an 18-month cycle and focused on the readiness of higher Technology Readiness Level technologies in a

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3320: *TRIDENT Warrior*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Maritime-based environment. The at-sea portion of Trident Warrior was executed in two phases. The venues were operational venues which support the experimental objectives of information dominance. -Developed FY14 Trident Warrior Fleet Experiment (FLEX) plan and began to develop FY15 Trident Warrior FLEX plan. ***FY 2013 Plans:*** -Continue to focus on operational experimentation of Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) technologies during the Navy's premier, annual FLEX events. The primary goal is to validate information dominance capabilities, maritime warfighting policy and procedures, and interoperability between the United States (U.S.) and Coalition partners. -Continue to provide systems engineering and analysis to rapidly identify emergent fleet needs and capability shortfall, assessing risk, validating cost and delivering capability. Find solutions for the Office of the Chief of Naval Operations/Commander, U.S. Fleet Force Command selected capability gaps and package them for operational use, favoring cost effective, disruptive technologies. Facilitate the successful transition of identified technology capabilities into Programs of Record. This process will deliver Program Objective Memorandum recommendations and supporting roadmaps based on assessments of capability gaps with a focus on technologies that respond to irregular, catastrophic and disruptive technology insertion. -The majority of Trident Warrior experimentation occurs during operational at-sea venues where new and emerging capabilities are integrated with current fleet units and either demonstrated or evaluated on their potential military utility. The Sea-based venue works on an 18-month cycle and focuses on the readiness of higher Technology Readiness Level technologies in a Maritime-based environment. The at-sea portion of Trident Warrior will be executed in two phases. The venues to be determined, will be operational venues which support the experimental objectives of information dominance. -Continue to develop FY14 Trident Warrior FLEX plan and FY15 Trident Warrior FLEX plan. ***FY 2014 Plans:*** -Finalize analysis of Trident Warrior (TW) 13 experiment to result recommendations by United States Fleet Forces Command (USFFC) on experiment initiatives. -Explore Trident Warrior 14 in Commander Third Fleet (C3F)/Commander Seventh Fleet (C7F) Area of Responsibility (AOR) using Carrier Strike Group/Expeditionary Strike Group (CSG/ESG) units with possible Allied/Coalition presence. -Direct, coordinate, assist and supervise primarily non-Systems Command (SYSCOM) participants, and SYSCOM participants as able with specific goal identification, risk identification, and experiment plan including data requirements and collection on schedule and in accordance with standardized procedures derived from experimentation best practices. -Assist participants to achieve required installation and security certifications, accreditations and approvals. -Provide subject matter experts (SMEs) to maintain core ship services during the experimentation period. -Provide independent experts in experimentation to coordinate the establishment of, and compliance with, experiment plans and to lead analysis effort and provide unbiased assessment to decision makers for initiatives designated by USFF.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3320: *TRIDENT Warrior*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
-Provide results to government sponsors to support the program's Planning, Programming, Budgeting, and Execution Process (PPBE) and engineering decisions. -Plan and execute TW14 operational events to accelerate the transition of Information Dominance capability to the Fleet. -Solicit participation for Trident Warrior 15 of government sponsored and industry sponsored technologies responsive to identified Naval capability gaps. Select technologies for participation in numbers supportable within resources.			
Accomplishments/Planned Programs Subtotals	3.619	3.579	2.340

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Trident Warrior is an annual operational experiment covering an 18-month process and is not associated with acquisition efforts.

E. Performance Metrics

Confirmation of Fleet and Joint Interoperability with technology candidates, Information Assurance Certification and Accreditation, and alignment with United States Fleet Forces (USFF) Commander's Guidance, and Systems Command (SYSCOM) Chief Engineer as well as related Program Executive Office objectives and projected architectures.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3320: *TRIDENT Warrior*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Trident Warrior (TW)	WR	Fleet Forces Command:San Diego, CA	0.000	0.025	Dec 2011	0.097	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Trident Warrior (TW)	WR	Naval Postgraduate School:Monterey, CA	0.000	1.100	Nov 2011	1.393	Nov 2012	0.972	Nov 2013	-		0.972	Continuing	Continuing	Continuing
Trident Warrior (TW)	WR	SSC Atlantic:Charleston, SC	0.000	0.638	Jan 2012	0.056	Jan 2013	0.043	Jan 2014	-		0.043	Continuing	Continuing	Continuing
Trident Warrior (TW)	WR	SSC Pacific:San Diego, CA	0.000	0.473	Nov 2011	0.528	Nov 2012	0.347	Nov 2013	-		0.347	Continuing	Continuing	Continuing
Trident Warrior (TW)	C/CPFF	AUSGAR Technolgies Inc.:San Diego, CA	0.000	1.383	Dec 2011	1.505	Dec 2012	0.978	Dec 2013	-		0.978	Continuing	Continuing	Continuing
		Subtotal	0.000	3.619		3.579		2.340		0.000		2.340			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	3.619		3.579		2.340		0.000		2.340			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3320: *TRIDENT Warrior*

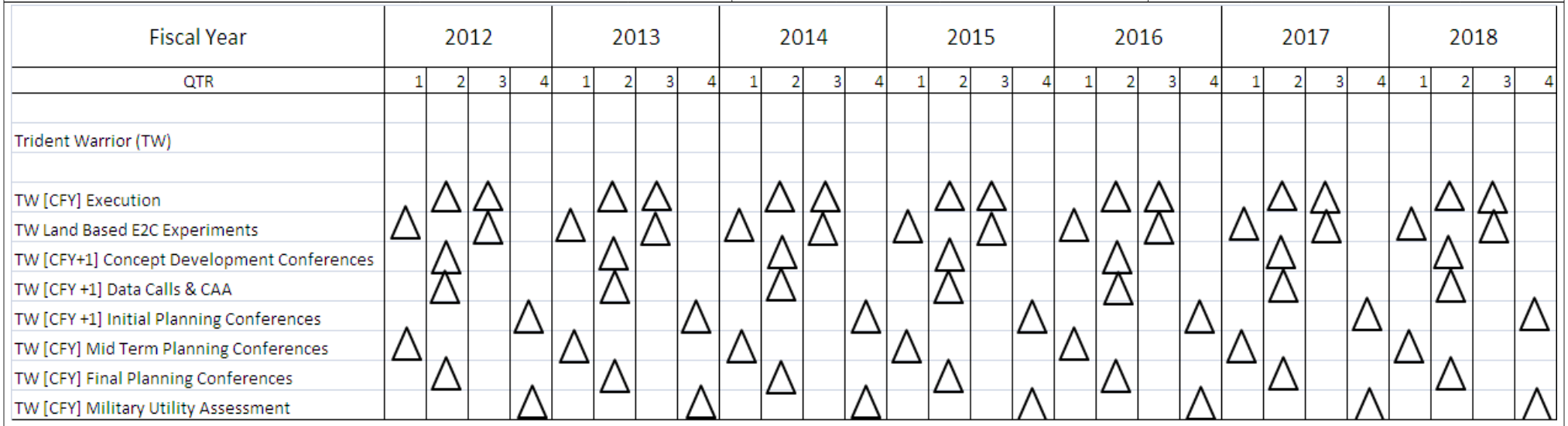


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3320: *TRIDENT Warrior*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3320				
Trident Warrior (TW) Execution 2012	2	2012	3	2012
Trident Warrior (TW) Execution 2013	2	2013	3	2013
Trident Warrior (TW) Execution 2014	2	2014	3	2014
Trident Warrior (TW) Execution 2015	2	2015	3	2015
Trident Warrior (TW) Execution 2016	2	2016	3	2016
Trident Warrior (TW) Execution 2017	2	2017	3	2017
Trident Warrior (TW) Execution 2018	2	2018	3	2018
TW Land Based E2C Experiments 2012 Q1	1	2012	1	2012
TW Land Based E2C Experiments 2012 Q3	3	2012	3	2012
TW Land Based E2C Experiments 2013 Q1	1	2013	1	2013
TW Land Based E2C Experiments 2013 Q3	3	2013	3	2013
TW Land Based E2C Experiments 2014 Q1	1	2014	1	2014
TW Land Based E2C Experiments 2014 Q3	3	2014	3	2014
TW Land Based E2C Experiments 2015 Q1	1	2015	1	2015
TW Land Based E2C Experiments 2015 Q3	3	2015	3	2015
TW Land Based E2C Experiments 2016 Q1	1	2016	1	2016
TW Land Based E2C Experiments 2016 Q3	3	2016	3	2016
TW Land Based E2C Experiments 2017 Q1	1	2017	1	2017
TW Land Based E2C Experiments 2017 Q3	3	2017	3	2017
TW Land Based E2C Experiments 2018 Q1	1	2018	1	2018
TW Land Based E2C Experiments 2018 Q3	3	2018	3	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3320: *TRIDENT Warrior*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
TW Concept Development Conferences 2012	2	2012	2	2012
TW Concept Development Conferences 2013	2	2013	2	2013
TW Concept Development Conferences 2014	2	2014	2	2014
TW Concept Development Conferences 2015	2	2015	2	2015
TW Concept Development Conferences 2016	2	2016	2	2016
TW Concept Development Conferences 2017	2	2017	2	2017
TW Concept Development Conferences 2018	2	2018	2	2018
TW Data Calls & CAA 2012	2	2012	2	2012
TW Data Calls & CAA 2013	2	2013	2	2013
TW Data Calls & CAA 2014	2	2014	2	2014
TW Data Calls & CAA 2015	2	2015	2	2015
TW Data Calls & CAA 2016	2	2016	2	2016
TW Data Calls & CAA 2017	2	2017	2	2017
TW Data Calls & CAA 2018	2	2018	2	2018
TW Initial Planning Conferences 2012	4	2012	4	2012
TW Initial Planning Conferences 2013	4	2013	4	2013
TW Initial Planning Conferences 2014	4	2014	4	2014
TW Initial Planning Conferences 2015	4	2015	4	2015
TW Initial Planning Conferences 2016	4	2016	4	2016
TW Initial Planning Conferences 2017	4	2017	4	2017
TW Initial Planning Conferences 2018	4	2018	4	2018
TW Mid-Term Planning Conferences 2012	1	2012	1	2012
TW Mid-Term Planning Conferences 2013	1	2013	1	2013
TW Mid-Term Planning Conferences 2014	1	2014	1	2014
TW Mid-Term Planning Conferences 2015	1	2015	1	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3320: *TRIDENT Warrior*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TW Mid-Term Planning Conferences 2016	1	2016	1	2016
TW Mid-Term Planning Conferences 2017	1	2017	1	2017
TW Mid-Term Planning Conferences 2018	1	2018	1	2018
TW Final Planning Conferences 2012	2	2012	2	2012
TW Final Planning Conferences 2013	2	2013	2	2013
TW Final Planning Conferences 2014	2	2014	2	2014
TW Final Planning Conferences 2015	2	2015	2	2015
TW Final Planning Conferences 2016	2	2016	2	2016
TW Final Planning Conferences 2017	2	2017	2	2017
TW Final Planning Conferences 2018	2	2018	2	2018
TW Military Utility Assessment 2012	4	2012	4	2012
TW Military Utility Assessment 2013	4	2013	4	2013
TW Military Utility Assessment 2014	4	2014	4	2014
TW Military Utility Assessment 2015	4	2015	4	2015
TW Military Utility Assessment 2016	4	2016	4	2016
TW Military Utility Assessment 2017	4	2017	4	2017
TW Military Utility Assessment 2018	4	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3323: *Maritime Tactical Command & Control (MTC2)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3323: *Maritime Tactical Command & Control (MTC2)*	0.000	0.003	7.441	17.443	-	17.443	14.410	19.304	24.238	26.778	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY 2013, the development of maritime tactical command and control capabilities was realigned from Global Command and Control System Maritime (GCCS-M) Maritime Applications (Project Unit x0709) to the Maritime Tactical Command and Control (MTC2) program (Project Unit x3323).

In FY 2014, Global Force Management - Data Intitiative efforts transitions from GCCS-M Maritime Applications (Project Unit x0709) to the MTC2 program (Project unit x3323).

A. Mission Description and Budget Item Justification

MTC2 is a software program which will provide tactical Command and Control (C2) capabilities and Maritime unique Operational Level of War capabilities not supported by the joint C2 effort. MTC2 fields to all echelons of command within the Navy. The goal is to provide a suite of maritime applications notionally as part of an "Application Store" concept for personnel and equipment that enables the Navy command structure enhanced situational awareness, planning, execution, monitoring, and assessment of its mission requirements. MTC2 will field maritime applications designed to provide automated and structured support for tactical and operational planning, decision-making, and execution.

Global Force Management - Data Initiative (GFM-DI) is the Department-wide enterprise solution that enables visibility/accessibility/sharing of data applicable to the entire DoD force structure. GFM-DI is the enterprise solution for force structure representation and MTC2 will be the data source for the Navy's force structure representation. In FY 2014, GFM-DI will perform design and development for integration into MTC2 and will align to the joint command and control objective architecture.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Navy Working Capital Fund Rate Adjustment	0.003	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: Navy Working Capital Fund Rate Adjustment - this issue adjusts WCF rates.			
Title: Maritime Tactical Command and Control (MTC2)	0.000	7.441	15.600

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3323: *Maritime Tactical Command & Control (MTC2)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:		0	0
FY 2013 Plans: Begin initial development of Maritime Tactical Command and Control (MTC2) capabilities. Analyze, integrate and test software transitioning from Command and Control Rapid Prototype Continuum (C2RPC) Science & Technology (S&T) efforts into the MTC2 Program of Record. Perform systems engineering analysis, system design efforts, and acquisition documentation in support of a Build Decision (Release 1). ***FY 2014 Plans:*** Continue software development, analysis, integration, and testing to transition from C2RPC S&T efforts into MTC2 Program of Record. Perform systems engineering analysis and software transition of critical Maritime Operations Center (MOC) capabilities (intelligence collection management, cross-domain intelligence sharing, movement and status archiving, and partner coordination management) in Fleet Capability Release (FCR) 1. Additionally funds are provided for the assessment of JC2 capabilities within the MTC2 environment, interoperability assessments of the USMC Tactical SOA capability, and international activities supporting cooperative-development of maritime C2 capabilities. Begin developing 5 new enhancements for FCR2 using the same MTC2 foundation to achieve smooth transition and fielding in FY 2016 with Speed to Fleet (S2F).			
Title: Global Force Management - Data Initiative (GFM-DI)	0.000	0.000	1.843
Articles:			0
FY 2014 Plans: Conduct design activity and GFM-DI development and integration. Coordinate with other Joint GFM-DI development efforts in order to align and leverage as appropriate.			
Accomplishments/Planned Programs Subtotals	0.003	7.441	17.443

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTEN/0604231N/0709: *GCCS-M*	18.508	5.330	0.000		0.000	0.000	0.000	0.000	0.000	0.000	199.964

Remarks

D. Acquisition Strategy

MTC2 is planning to execute a rapid software development acquisition strategy that is responsive to the fleet needs. Software development will be comprised of multiple releases of increasing levels of net-centric services capability. MTC2 will be software only, and require the Navy Common Computing Enterprise (CCE) provided by other network centric programs to serve as the underlying information technology infrastructure of network and hardware for MTC2 software. MTC2's

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3323: *Maritime Tactical Command & Control (MTC2)*

primary contracting method for software development utilizes SPAWAR Systems Center - Pacific (SSC-PAC), San Diego, CA and Indefinite Delivery, Indefinite Quantity (IDIQ) task orders.

E. Performance Metrics

MTC2 leverages software investments by the Office of Naval Research (ONR) to realize recommended materiel solutions defined in the Initial Capabilities Document (ICD) for meeting Capability Package 1 (CP1) Operational Level of Warfare (OLW) capability needs within a Maritime Operation Center (MOC). MTC2 will reside on CCE/Consolidated Afloat Networks and Enterprise Services (CANES) hardware infrastructure and the CANES Agile Core Services (ACS) technology architecture. MTC2 Release 1 software-only solution eliminates the hardware procurement, installation and sustainment costs. Successfully complete initial engineering and design analysis, and acquisition documentation to achieve five Build Decisions.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3323: *Maritime Tactical Command & Control (MTC2)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	SSC:San Diego, CA	0.000	0.000		2.791	Nov 2012	4.038	Nov 2013	-		4.038	Continuing	Continuing	Continuing
Training Development	WR	SSC:San Diego, CA	0.000	0.000		0.070	Nov 2012	1.114	Nov 2013	-		1.114	Continuing	Continuing	Continuing
Software Development	WR	SSC:San Diego, CA	0.000	0.000		3.825	Nov 2012	9.305	Nov 2013	-		9.305	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		6.686		14.457		0.000		14.457			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	SSC:San Diego, CA	0.000	0.000		0.000		0.891	Nov 2013	-		0.891	0.000	0.891	
Operational Test & Evaluation	C/CPIF	COTF:Norfolk, VA	0.000	0.000		0.000		0.669	Nov 2013	-		0.669	0.000	0.669	
		Subtotal	0.000	0.000		0.000		1.560		0.000		1.560	0.000	1.560	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Navy Working Capital Fund Rate Adjustment	WR	WCF:TBD	0.000	0.003	Sep 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Government Engineering Support	WR	SSC:San Diego, CA	0.000	0.000		0.200	Nov 2012	0.379	Nov 2013	-		0.379	Continuing	Continuing	Continuing
Contractor Engineering Support	C/CPFF	SeaPort:San Diego, CA	0.000	0.000		0.200	Nov 2012	0.379	Nov 2013	-		0.379	Continuing	Continuing	Continuing
Program Management Support	C/CPFF	SeaPort:San Diego, CA	0.000	0.000		0.355	Nov 2012	0.668	Nov 2013	-		0.668	Continuing	Continuing	Continuing
		Subtotal	0.000	0.003		0.755		1.426		0.000		1.426			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3323: *Maritime Tactical Command & Control (MTC2)*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.003		7.441		17.443		0.000		17.443			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		**DATE:** April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604231N: *Tactical Command System*	**PROJECT** 3323: *Maritime Tactical Command & Control (MTC2)*

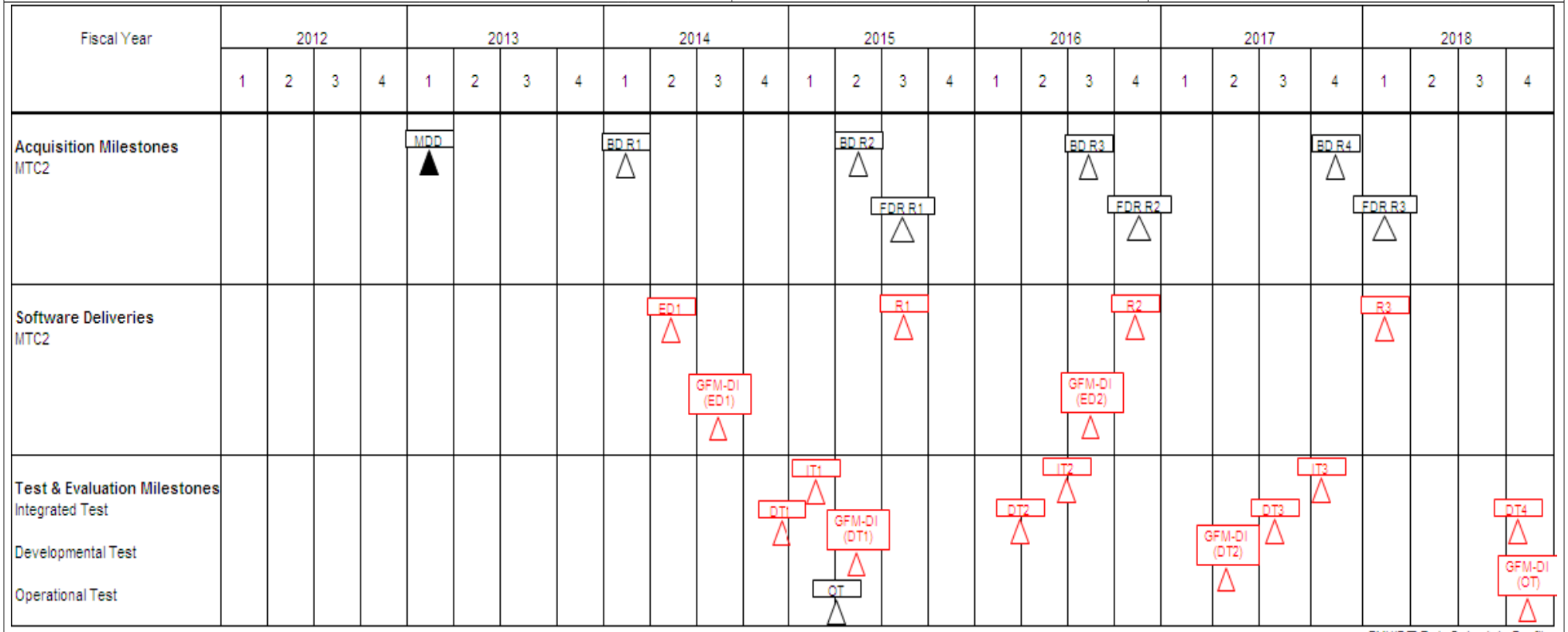


EXHIBIT R-4, Schedule Profile

Legend:

BD - Build Decision	IT - Integrated Test
DT - Developmental Test	MDD - Materiel Development Decision
ED - Engineering Drop	OT - Operational Test
FDR - Fielding Decision Review	R - Release
GFM-DI - Global Force Mgt - Data Initiative	

Notes:

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604231N: *Tactical Command System*	**PROJECT** 3323: *Maritime Tactical Command & Control (MTC2)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3323				
Material Development Decision	1	2013	1	2013
Build Decision/Release 1	1	2014	1	2014
Engineering Drop 1	2	2014	2	2014
Global Force Management - Data Initiative - Engineering Drop 1	3	2014	3	2014
Developmental Test 1	4	2014	4	2014
Integrated Test 1	1	2015	1	2015
Operational Test	1	2015	1	2015
Build Decision / Release 2	2	2015	2	2015
Global Force Management - Data Initiative - Development Test 1	2	2015	2	2015
Fielding Decision Review/Release 1	3	2015	3	2015
Release 1	3	2015	3	2015
Developmental Test 2	2	2016	2	2016
Integrated Test 2	3	2016	3	2016
Global Force Management - Data Initiative - Engineering Drop 2	3	2016	3	2016
Build Decision/Release 3	3	2016	3	2016
Fielding Decision Review/Release 2	4	2016	4	2016
Release 2	4	2016	4	2016
Global Force Management - Data Initiative - Development Test 2	2	2017	2	2017
Developmental Test 3	3	2017	3	2017
Integrated Test 3	4	2017	4	2017
Build Decision/Release 4	4	2017	4	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3323: *Maritime Tactical Command & Control (MTC2)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Fielding Decision Review/Release 3	1	2018	1	2018
Release 3	1	2018	1	2018
Global Force Management - Data Initiative - Operational Test	4	2018	4	2018
Developmental Test 4	4	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3324: *Navy Air Operations Command and Control (NAOC2)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3324: *Navy Air Operations Command and Control (NAOC2)*	0.000	2.073	4.983	4.066	-	4.066	2.165	1.131	1.157	1.176	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Beginning in fiscal year 2012, the Navy Command and Control Air Planning Capability effort was realigned from Theater Battle Management Core System (TBMCS), project unit 0709, to the Navy Air Operations Command and Control (NAOC2) program under project unit 3324.

A. Mission Description and Budget Item Justification

Navy Air Operations Command and Control (NAOC2) integrates and tests Air Force program of record systems that provide an integrated and scalable planning system for standardized, secure, and automated decision support for Air Force, Joint, and Allied commanders worldwide. These programs provide automated air operations planning, execution management and intelligence capabilities at the Force level to include fleet commanders, numbered fleet commanders, commander carrier strike group, Commander Expeditionary Strike Group, Commander Landing Force, and Joint Task Force Commanders. NAOC2 includes Theater Battle Management Core System (TBMCS), Command and Control Air and Space Operations Suite (C2AOS), plus Command, Control and Information Services (C2IS). C2AOS and C2IS are being developed as Service Oriented Architecture (SOA) services to allow for scalability and integration with Common Computing Environments (CCE). Continuation of these efforts will significantly enhance the Joint Force Air Component Commander and Combined Air Operations Center personnel to plan daily air operations including strike, airlift, offensive and defensive air, tanker missions in support of combat operations, addressing the requirement of war fighter of distributed planning and execution processes and significantly improving Joint interoperability. TBMCS continues a hardware transition to CCEs such as Consolidated Afloat Networks and Enterprise Services (CANES). Currently, TBMCS is the key system that is used to conduct real world air planning in the Joint and Navy environment. C2AOS and C2IS will replace TBMCS in a SOA environment while bringing more flexibility to the war fighter. In FY2014, the program will continue Navy integration and testing for Air Force developed C2AOS and C2IS, with focus on two of the currently planned four Capability Packages.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: TBMCS CANES Migration	1.367	1.359	1.383
Articles:	0	0	0
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3324: *Navy Air Operations Command and Control (NAOC2)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Conducted migration of Air Force design, development, and delivery of Theater Battle Management Core System (TBMCS) software to the Navy unique Consolidated Afloat Networks and Enterprise Services (CANES) Common Computing Environment. Conducted integrated TBMCS/CANES Developmental Tests and prepared for Operational Test. ***FY 2013 Plans:*** Continue migration of Air Force designed, developed, and delivered Theater Battle Management Core System (TBMCS) software to the Navy unique Consolidated Afloat Networks and Enterprise Services (CANES) Common Computing Environment. Conduct integrated TBMCS/CANES Developmental Tests. ***FY 2014 Plans:*** Complete migration of Air Force designed, developed, and delivered Theater Battle Management Core System (TBMCS) software to the Navy unique Consolidated Afloat Networks and Enterprise Services (CANES) Common Computing Environment. Conduct Operational Assessment and Operational Test.			
Title: Command and Control Air and Space Operations Suite (C2AOS) / Command, Control and Information Services (C2IS) Integration and Testing	0.706	3.624	2.683
Articles:	0	0	0
FY 2012 Accomplishments: Conducted requirements definition and acquisition planning in support of pre Milestone B Air Force development of Command and Control Air and Space Operations Suite (C2AOS) and Command, Control and Information Services (C2IS) to ensure full functionality on Navy unique systems to support increased Joint interoperability and enhanced capability including theater level planning plus distributed planning and execution processes. ***FY 2013 Plans:*** Conduct integration and testing of one Capability Package in support of Air Force development of Command and Control Air and Space Operations Suite (C2AOS)and Command, Control and Information Services (C2IS) to ensure full functionality on Navy unique systems to include Navy implementation of Service Oriented Architecture to support increased Joint interoperability and enhanced capability including theater level planning plus distributed planning and execution processes. ***FY 2014 Plans:*** Continue integration and testing of two Capability Packages in support of Air Force development of Command and Control Air and Space Operations Suite (C2AOS)and Command, Control and Information Services (C2IS) to ensure full functionality on Navy unique systems to include Navy implementation of Service Oriented Architecture to support increased Joint interoperability and enhanced capability including theater level planning plus distributed planning and execution processes.			
Accomplishments/Planned Programs Subtotals	2.073	4.983	4.066

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3324: *Navy Air Operations Command and Control (NAOC2)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

TBMCS is designed, developed, and delivered by the Air Force and will be integrated for a Navy Common Computing Environment (CCE) such as CANES. As a Joint interest program, this approach satisfies the current validated requirements, supports the accelerated retirement of legacy hardware, and reduces overall risk to the program.

Command and Control Air and Space Operations Suite (C2AOS) and Command, Control and Information Services (C2IS) are designed, developed, and delivered by the Air Force and will be integrated for a Navy CCE and service oriented architecture environment such as CANES. This approach satisfies the current validated requirements and reduces overall risk to the program.

E. Performance Metrics

TBMCS, C2AOS, and C2IS are designed, developed, and delivered by the Air Force. This leverage greatly reduces the integration and testing costs associated with each software release. The solutions will reside on CCE/CANES architecture. These software-only solutions eliminate hardware procurement, installation, and sustainment costs.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3324: *Navy Air Operations Command and Control (NAOC2)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	SSC Pacific:San Diego, CA	0.000	1.018	Nov 2011	1.276	Apr 2013	0.761	Apr 2014	-		0.761	Continuing	Continuing	Continuing
Licenses	WR	SSC Pacific:San Diego, CA	0.000	0.059	Nov 2011	0.063	Nov 2012	0.366	Jan 2014	-		0.366	0.000	0.488	
Government Furnished Equipment (GFE)	WR	SSC Pacific:San Diego, CA	0.000	0.657	Nov 2011	0.259	Nov 2012	0.395	Nov 2013	-		0.395	0.000	1.311	
Training DevelopmentText	WR	SSC Pacific:San Diego, CA	0.000	0.000		0.419	Nov 2012	0.150	Apr 2014	-		0.150	0.000	0.569	
Configuration Management	TBD	Unknown:San Diego, CA	0.000	0.000		0.126	Apr 2013	0.128	Apr 2014	-		0.128	0.000	0.254	
Technical Data	WR	SSC LANT:Charleston, SC	0.000	0.000		0.299	Nov 2012	0.244	Nov 2013	-		0.244	0.000	0.543	
		Subtotal	0.000	1.734		2.442		2.044		0.000		2.044			

Remarks

GFE supports integration efforts, not for fielding.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	TBD	Unknown:Unknown	0.000	0.059	Nov 2011	0.060	Apr 2013	0.061	Apr 2014	-		0.061	0.000	0.180	
Integrated Logistics Support	WR	SSC LANT:Charleston, SC	0.000	0.000		0.358	Nov 2012	0.366	Nov 2013	-		0.366	0.000	0.724	
		Subtotal	0.000	0.059		0.418		0.427		0.000		0.427	0.000	0.904	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3324: *Navy Air Operations Command and Control (NAOC2)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation	MIPR	COMOPTEVFOR:Norfolk, VA	0.000	0.138	Nov 2011	0.140	Jul 2013	0.143	Jul 2014	-		0.143	0.000	0.421	
Developmental Test & Evaluation	WR	SSC PAC:San Diego, CA	0.000	0.000		1.604	Apr 2013	1.068	Jul 2014	-		1.068	0.000	2.672	
		Subtotal	0.000	0.138		1.744		1.211		0.000		1.211	0.000	3.093	

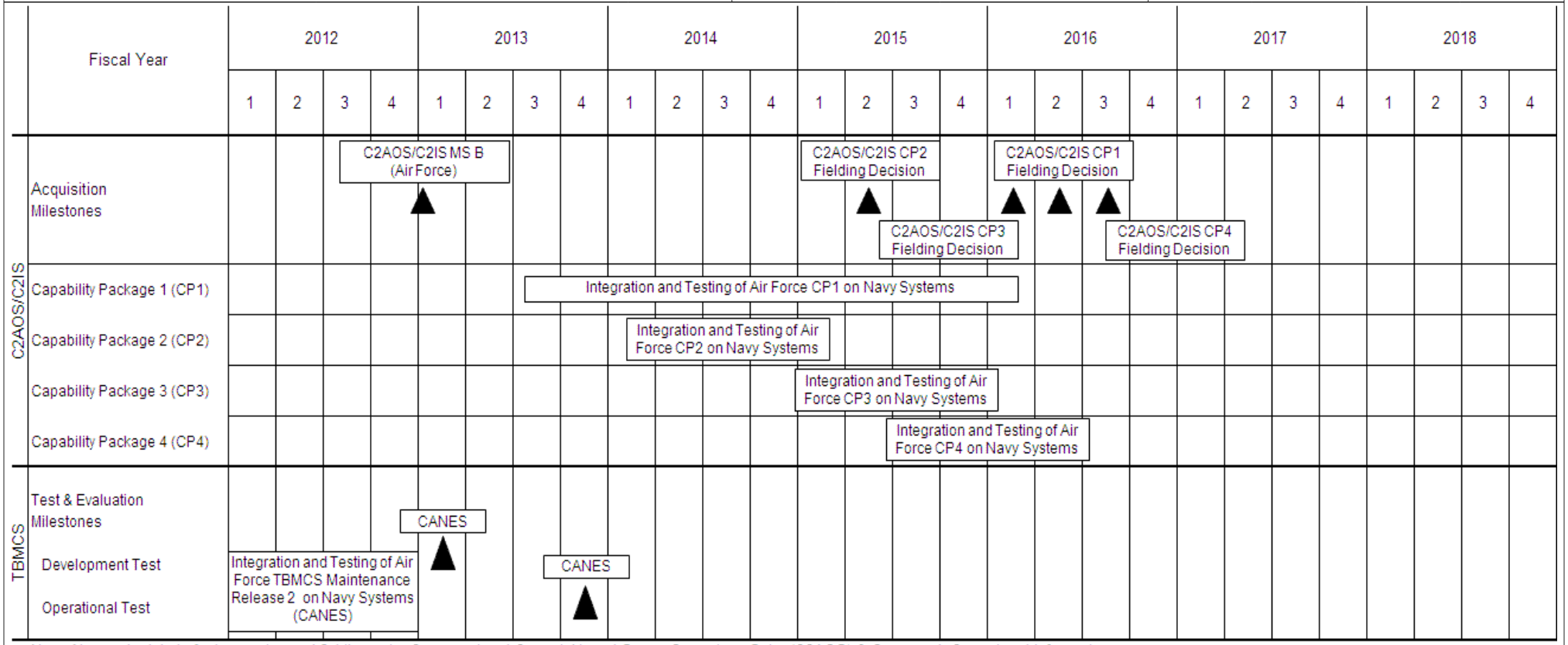
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	TBD	Unknown:San Diego, CA	0.000	0.142	Nov 2011	0.253	Nov 2012	0.256	Apr 2014	-		0.256	0.000	0.651	
Program Management Support	TBD	Unknown:San Diego, CA	0.000	0.000		0.126	Nov 2012	0.128	Apr 2014	-		0.128	0.000	0.254	
		Subtotal	0.000	0.142		0.379		0.384		0.000		0.384	0.000	0.905	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	2.073		4.983		4.066		0.000		4.066			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3324: *Navy Air Operations Command and Control (NAOC2)*



Note: Navy schedule is for integration and fielding only. Command and Control Air and Space Operations Suite (C2AOS) & Command, Control and Information Services (C2IS) are being developed in a series of Capability Packages that will be fielded as available. Both C2AOS and C2IS are Air Force ACAT III PORs. Theater Battle Management Core Systems (TBMCS) migration will support Consolidated Afloat Networks and Enterprise Services (CANES) testing events. Air Force milestones were taken from Air Force PB13 R-1 Line Item #146, PE 0207410F, Project 675218.

Exhibit R-4, Schedule Profile

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 3324: *Navy Air Operations Command and Control (NAOC2)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3324				
Air Force C2AOS/C2IS Milestone B	1	2013	1	2013
Air Force C2AOS/C2IS CP1 Fielding Decision	2	2016	2	2016
Air Force C2AOS/C2IS CP2 Fielding Decision	2	2015	2	2015
Air Force C2AOS/C2IS CP3 Fielding Decision	1	2016	1	2016
Air Force C2AOS/C2IS CP4 Fielding Decision	3	2016	3	2016
Air Force C2AOS/C2IS CP1 Integration and Testing on Navy Systems	3	2013	1	2016
Air Force C2AOS/C2IS CP2 Integration and Testing on Navy Systems	1	2014	1	2015
Air Force C2AOS/C2IS CP3 Integration and Testing on Navy Systems	1	2015	4	2015
Air Force C2AOS/C2IS CP4 Integration and Testing on Navy Systems	3	2015	2	2016
Air Force TBMCS MR2 Integration and Testing on Navy Systems (CANES)	1	2012	4	2012
Developmental Test (TBMCS/CANES)	1	2013	1	2013
Operational Test (TBMCS/CANES)	4	2013	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9123: *FORCEnet*	220.071	5.251	4.544	2.928	-	2.928	3.422	3.082	3.112	3.189	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Trident Warrior was transferred from Project 9123 into Project 3320 beginning in FY12.

A. Mission Description and Budget Item Justification

FORCEnet is the Navy and Marine Corps initiative to deliver Information Dominance and achieve Department of the Navy (DoN)/Department of Defense (DoD) Transformation, Joint/Allied/Coalition Interoperability, implementing Maritime Domain Awareness (MDA), and Net-Centric Operations/Warfare (NCO/W). Chief of Naval Operations Information Dominance effort focuses prioritization and organizational responsibility for information dominance, cyber, intelligence and sensors resulting in increased scope of systems, platforms and mission areas. FORCEnet is a foundation of Sea Power 21, Naval Power 21, the Naval Operating Concept for Joint Operations, and the DoN's Naval Transformation Roadmap.

The FORCEnet project line funds the following efforts:

(1) DoN Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Transformation/Strategic Planning within DoN/Joint/DoD Framework: Assesses existing and emerging capabilities, develops and evaluates Navy-wide policies, plans, requirements, and compliance; develops integration and investment strategies; and accelerates innovation, testing, assessment and fielding of material and non-material solutions for enhanced operational capability, Joint/Allied/Coalition interoperability and application/enforcement of enterprise requirements/architectures/standards toward greater NCO/W capability. Supports Navy implementation of MDA capability, Maritime Operations Centers (MOC), and enterprise network efforts.

(2) Systems Requirements Analysis/Systems Engineering: Supports requirements analysis and systems engineering of systems under development by DoN/DoD. Funding supports the technical and systems engineering expertise required for C4ISR systems technical requirements generation, requirements tracking, architecture development, and detailed analyses on various warfare systems under development to determine if the required Command, Control, Communications, and Computers (C4) infrastructure, resources, and other capabilities are aligned and synchronized. The funding also supports the systems engineering for the synthesis of current Network-Centric, C4ISR Programs of Record with existing/emerging capabilities.

(3)Information Dominance Roadmaps and Analysis: Funding supports Portfolio Health Assessments on Navy mission areas and identifies gaps in Information Dominance capabilities provided to the missions. Funds support development of Information Dominance Roadmaps by providing analytical and architectural support to each roadmap owner.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: FORCEnet	5.251	4.544	2.928
Articles:	0	0	0
FY 2012 Accomplishments: Department of the Navy (DoN) Command, Control, Communications, Computers, Surveillance, and Reconnaissance (C4ISR) Transformation/Strategic Planning within DoN/Joint/Department of Defense (DoD) Framework: Within the DoD, Joint Staff, and Combatant Commander management of Joint Capability Portfolios, continued to assess existing and emerging capabilities in selected operating environments, developed integration plans, executed system engineering reviews and investment strategies, accelerated innovation, technology insertion, and incorporated material and non-material solutions for enhanced Joint operational capabilities in Net-Centric Operations/Warfare. -Continued to support Navy implementation of Maritime Domain Awareness, Standing Joint Force Headquarters, Maritime Operations Centers and coalition/allied operations. Systems Requirements Analysis/Systems Engineering: Continued to conduct requirements analysis and systems engineering of systems under development by DoN/DoD. -Continued to provide technical and systems engineering expertise required for C4ISR systems technical requirements generation and tracking, architecture development, systems analysis to evaluate alignment and synchronization of infrastructure, resources and other existing/ developing systems. -Continued to support systems engineering for the synthesis of current Net-Centric C4ISR systems with existing and emerging C4ISR systems. Information Dominance Roadmaps and Analysis: Continued to research Navy mission areas to identify interdependencies between programs for budget tradeoffs and mission impacts of those tradeoffs. -Identified Navy mission area gaps in Information Dominance capabilities to prioritize Science and Technology efforts for future budget decisions. -Evaluated Navy mission areas for linkages to roadmap action items and provided analytical and architectural support in the development of Information Dominance Roadmaps. -Ensured Information Dominance roadmaps objectives providing stated capabilities to the warfighters.			
FY 2013 Plans: DoN C4ISR Transformation/Strategic Planning within DoN/Joint/DoD Framework: Within the DoD, Joint Staff, and Combatant Commander management of Joint Capability Portfolios, continue to assess existing and emerging capabilities in selected operating environments, develop integration plans, execute system engineering reviews and investment strategies, accelerate innovation, technology insertion, and incorporation of material and non-material solutions for enhanced Joint operational capabilities in Net-Centric Operations/Warfare.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
-Continue to support Navy implementation of Maritime Domain Awareness, Standing Joint Force Headquarters, Maritime Operations Centers and Coalition/Allied operations. Systems Requirements Analysis/Systems Engineering: Continue to conduct requirements analysis and systems engineering of systems under development by DoN/DoD. -Continue to provide technical and systems engineering expertise required for Command, Control, Communications, Computers, Surveillance, and Reconnaissance (C4ISR) systems technical requirements generation and tracking, architecture development, and systems analysis to evaluate alignment and synchronization of infrastructure, resources and other existing/developing systems. -Continue to support systems engineering for the synthesis of current Net-Centric C4ISR systems with existing and emerging C4ISR systems. Information Dominance Roadmaps and Analysis: Continue to research the Navy mission areas for interdependencies between programs for budget tradeoffs and mission impacts of those tradeoffs. -Continue to identify Navy mission area gaps in Information Dominance capabilities to prioritize Science and Technology efforts for future budget decisions. -Continue to evaluate Navy mission areas for linkages to roadmap action items and provide analytical and architectural support in the development of Information Dominance Roadmaps. -Continue to ensure Information Dominance Roadmaps objectives provide stated capabilities to the warfighters. ***FY 2014 Plans:*** Department of the Navy (DoN) C4ISR Transformation/Strategic Planning within DoN/Joint/Department of Defense (DoD) Framework: Within the DoD, Joint Staff, and Combatant Commander management of Joint Capability Portfolios, continue to assess existing and emerging capabilities in selected operating environments, develop integration plans, execute system engineering reviews and investment strategies, accelerate innovation, technology insertion, and incorporation of material and non-material solutions for enhanced Joint operational capabilities in Net-Centric Operations/Warfare. -Continue to support Navy implementation of Maritime Domain Awareness, Standing Joint Force Headquarters, Maritime Operations Centers and Coalition/Allied operations. Information Dominance Roadmaps and Analysis: Continue to research the Navy mission areas for interdependencies between programs for budget tradeoffs and mission impacts of those tradeoffs. -Continue to identify Navy mission area gaps in Information Dominance capabilities to prioritize Science and Technology efforts for future budget decisions.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
-Continue to evaluate Navy mission areas for linkages to roadmap action items and provide analytical and architectural support in the development of Information Dominance Roadmaps. -Continue to ensure Information Dominance Roadmaps objectives provide stated capabilities to the warfighters.			
Accomplishments/Planned Programs Subtotals	5.251	4.544	2.928

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

FORCEnet is a non-acquisition effort that informs and matures Navy decisions, which in turn impacts acquisition programs. Activities include acquiring intellectual capital in emerging technical areas through contracts providing technical engineering expertise and surge capacity for emerging tasks.

E. Performance Metrics

FORCEnet Performance Metrics: Goal: Chief of Naval Operations (CNO) strategic planning and supporting acquisition of classified efforts. Metric: Echelon 1 response to emergent strategic needs and classified warfighting capability.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development DLB/RCD	Various	Various:Various	1.196	0.000		0.000		0.000		-		0.000	0.000	1.196	
Systems Engineering-DLB/RCD	Various	Various:Various	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	
Ship Integration	Various	Various:Various	0.935	0.000		0.000		0.000		-		0.000	0.000	0.935	
Systems Engineering	Various	Various:Various	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	
		Subtotal	4.331	0.000		0.000		0.000		0.000		0.000	0.000	4.331	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support DLB/RCD	Various	Various:Various	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	
Configuration Management DLB/RCD	Various	Various:Various	0.115	0.000		0.000		0.000		-		0.000	0.000	0.115	
Development Support DLB/RCD	Various	Various:Various	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	
Software Development DLB/RCD	Various	Various:Various	1.971	0.000		0.000		0.000		-		0.000	0.000	1.971	
Development Support	Various	Various:Various	2.700	0.000		0.000		0.000		-		0.000	0.000	2.700	
Software Support	Various	Various:Various	2.900	0.000		0.000		0.000		-		0.000	0.000	2.900	
Sys Req Analysis/Sys Eng	Various	Various:Various	15.094	0.000		0.000		0.000		-		0.000	0.000	15.094	
S/W Develop,Integ,Demo, Field - MDA Prototypes	Various	Various:Various	108.910	0.000		0.000		0.000		-		0.000	0.000	108.910	
Sys Req Analysis/Sys Eng	WR	SSC PAC:San Diego, CA	0.356	0.801	Jan 2012	0.544	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Sys Req Analysis/Sys Eng	WR	SSC LANT:Charleston, SC	0.356	0.950	Jan 2012	0.656	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DoN Transformation (Strategic Planning)	WR	NSWC Dahlgren:Dahlgren, MD	0.000	0.359	Jan 2012	0.274	Jan 2013	0.163	Jan 2014	-		0.163	0.000	0.796	
Information Dominance Roadmaps and Analysis	C/CPFF	METRON:Reston, VA	0.000	0.541	Jan 2012	0.541	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Information Dominance Roadmaps and Analysis	C/CPFF	SAIC:San Diego, CA	0.000	1.499	Jan 2012	1.499	Jan 2013	1.980	Jan 2014	-		1.980	Continuing	Continuing	Continuing
Information Dominance Roadmaps and Analysis	WR	SSC LANT:Charleston, NC	0.000	0.460	Jan 2012	0.460	Jan 2013	0.447	Jan 2014	-		0.447	Continuing	Continuing	Continuing
		Subtotal	132.902	4.610		3.974		2.590		0.000		2.590			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various:Various	1.300	0.000		0.000		0.000		-		0.000	0.000	1.300	
Accelerating Joint Warfighting Capability (TW)	Various	Various:Various	30.736	0.000		0.000		0.000		-		0.000	0.000	30.736	
Accelerating Joint Warfighting Capability (TW)	WR	Fleet Forces Command:San Diego, CA	0.095	0.000		0.000		0.000		-		0.000	0.000	0.095	
Accelerating Joint Warfighting Capability (TW)	WR	Naval Postgraduate School:Monterey, CA	0.978	0.000		0.000		0.000		-		0.000	0.000	0.978	
Accelerating Joint Warfighting Capability (TW)	WR	SSC Atlantic:Charleston, SC	0.445	0.000		0.000		0.000		-		0.000	0.000	0.445	
Accelerating Joint Warfighting Capability (TW)	WR	SSC Pacific:San Diego, CA	1.069	0.000		0.000		0.000		-		0.000	0.000	1.069	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Accelerating Joint Warfighting Capability (TW)	C/CPFF	AUSGAR Technologies Inc.:San Diego, CA	1.489	0.000		0.000		0.000		-		0.000	0.000	1.489	
Imp FORCEnet Req (Fn Comp)	Various	Various:Various	17.144	0.000		0.000		0.000		-		0.000	0.000	17.144	
Developmental Test & Evaluation DLB/RCD	Various	Various:Various	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	
DoN Transformation (Strategic Planning)	Various	Various:Various	20.521	0.000		0.000		0.000		-		0.000	0.000	20.521	
DoN Transformation (Strategic Planning)	WR	NUWC:Newport, RI	0.240	0.200	Jan 2012	0.200	Jan 2013	0.119	Jan 2014	-		0.119	Continuing	Continuing	Continuing
DoN Transformation (Strategic Planning)	WR	NPGS:Monterey, CA	0.290	0.441	Jan 2012	0.370	Jan 2013	0.219	Jan 2014	-		0.219	Continuing	Continuing	Continuing
DoN Transformation (Strategic Planning)	C/CPFF	NGIT:Herndon, VA	0.349	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
DoN Transformation (Strategic Planning)	C/CPFF	Unknown:Unknown	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
Need Item Text	C/BA	Not Specified:Not Specified	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
		Subtotal	75.156	0.641		0.570		0.338		0.000		0.338			

Remarks

Accelerating Joint Warfighting Capability (Trident Warrior) (TW), was transferred from Project 9123 into new Project 3320 from FY12 forward.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Support	Various	Various:Various	2.124	0.000		0.000		0.000		-		0.000	0.000	2.124	
Government Engineering Support	Various	Various:Various	3.899	0.000		0.000		0.000		-		0.000	0.000	3.899	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support DLB/RCD	Various	Various:Various	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	
Travel DLB/RCD	Various	Various:Various	0.145	0.000		0.000		0.000		-		0.000	0.000	0.145	
Program Management Support	Various	Various:Various	0.800	0.000		0.000		0.000		-		0.000	0.000	0.800	
Travel	Various	Various:Various	0.299	0.000		0.000		0.000		-		0.000	0.000	0.299	
Acquisition Workforce	Various	Various:Various	0.165	0.000		0.000		0.000		-		0.000	0.000	0.165	
		Subtotal	7.682	0.000		0.000		0.000		0.000		0.000	0.000	7.682	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	220.071	5.251		4.544		2.928		0.000		2.928			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*

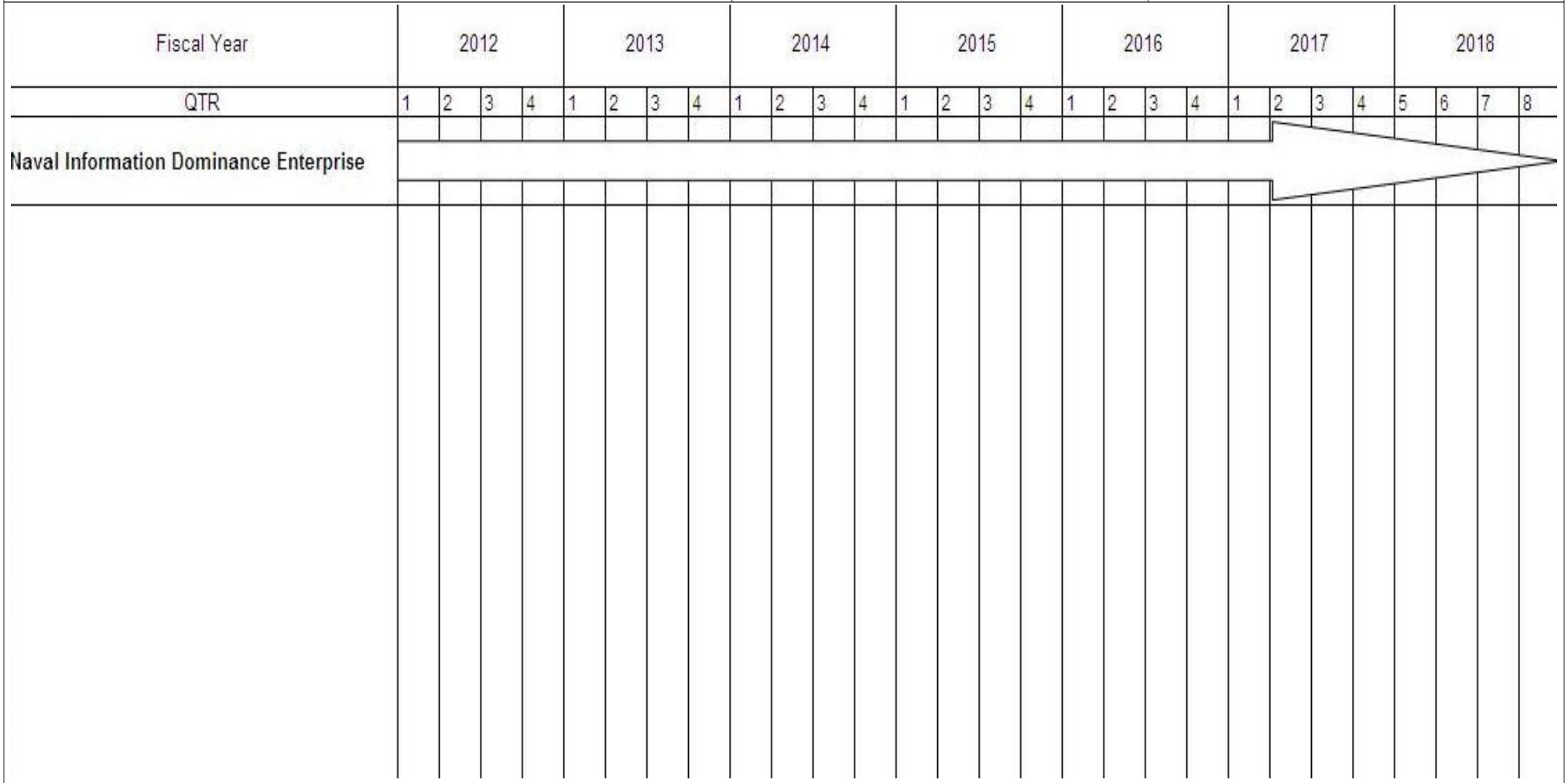


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604231N: *Tactical Command System*	PROJECT 9123: *FORCEnet*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9123				
Naval Information Dominance Enterprise	1	2012	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	3,891.368	129.414	119.065	152.041	-	152.041	190.742	201.692	220.186	149.144	127.455	5,181.107
3051: *E-2D Adv Hawkeye*	3,891.368	109.414	119.065	152.041	-	152.041	190.742	201.692	220.186	149.144	127.455	5,161.107
9999: *Congressional Adds*	0.000	20.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	20.000
MDAP/MAIS Code(s): 364												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The E-2D Advanced Hawkeye (AHE) program develops, demonstrates, tests, and procures the replacement of the AN/APS-145 radar system and other aircraft system components including Cooperative Engagement Capability Pre-Planned Product Improvement and Dual Transmit Satellite Communications that modernize the E-2 weapon system to maintain open ocean mission capability while providing the United States Navy with an effective littoral surveillance, battle management, Naval Integrated Fire Control - Counter Air (NIFC-CA) and Theater Air and Missile Defense (TAMD) capability. Key radar technologies are Space-Time Adaptive Processing, Electronically Scanning Array, solid state transmitter, high dynamic range digital receivers and Identification Friend or Foe (IFF)/radar aperture integration. The resultant detection system will provide a substantially improved overland performance by correcting current sensor shortfalls and enhancing all current required mission areas, while simultaneously contributing to the emerging TAMD mission requirements. Mode 5/S is an upgrade to the existing IFF System providing the warfighter positive, secure and reliable identification of friendly aircraft, surface and sub-surface platforms. Mode 5/S replaces the National Security Administration de-certified Mode 4 IFF capability, which is no longer effective or suitable for modern military operations. Mode 5/S will support the Joint Initial Operational Capability (IOC) as defined by the Joint Requirements Oversight Council.

An In-Flight Refueling capability will allow the E-2D AHE to receive fuel from various organic and non-organic tanker aircraft. It provides Expanded Battle Space Surveillance and Targeting through significantly enhanced persistence and increased flexibility (range & endurance). IFR will better enable the E-2D AHE to fully support current Carrier Strike Group /Joint 24/7 Theater Operations by providing more versatile stationing and/or forward basing options. Previous domestic E-2 concept demonstration effort successfully established the feasibility of tanking behind the F/A-18E/F and KC-130 aircraft under E-2 Squadrons, PE 0204152N.

Link-16 Crypto Modernization and frequency remap are required to satisfy the National Security Agency and Federal Aviation Administration mandates. E-2D AHE uses Link-16 to exchange and provide tactical information with other tactical units. The Link-16 Crypto Modernization and frequency remap effort requires the integration of a modified Multifunctional Information Distribution System - Low Volume Terminal (1) terminal and software modification to the E-2D AHE mission computer operational flight program.

The Ultra High Frequency (UHF) Guard Radio allows the aircrew to monitor the emergency UHF Guard frequency without having to dedicate a specific radio, freeing that radio up for use in the tactical mission. Because of the UHF Tunable Filter Amplifiers, the ARC-210 radios cannot provide continuous UHF guard monitoring,

although the internal guard receiver is operational. A separate UHF guard receiver is provided for monitoring the UHF guard (243 MHz) frequency. It is powered by the Guard switch located on the Communication/Control Display Unit Power Panel.

FY2013 starts a Counter Electronic Attack (CEA) capability which will allow the E-2D radar system to maintain performance in an advanced hostile intentional electromagnetic interference environment. The E-2D CEA program will ensure E-2D effectiveness is maintained in an Electronic Attack environment supporting the NIFC-CA capability and overall Navy and Joint Integrated Air and Missile Defense strategy.

FY2014 starts an E-2D Secret Internet Protocol Router (SIPR)Chat program. The SIPRChat capability will support integration of current collaboration tools including tactical "chat" (text) communications, real-time tasking, and Air Tasking Order distribution. Recent real world operations have demonstrated a migration of Command and Control communications from voice to Internet protocol based networks.

FY2014 starts an effort to integrate the Tactical Targeting Networking Technology (TTNT) Advanced Tactical Data Link functionality into the E-2D. This effort includes replacing the Multifunctional Information Distribution System - Low Volume Terminal (MIDS LVT) radio with Multifunctional Information Distribution System - Joint Tactical Radio System(MIDS-JTRS) that has incorporated the TTNT. MIDS JTRS with TTNT is a key enabler for E-2D sensor netting capability in support of the NIFC-CA mission.

FY2014 starts a Link-16/Cooperative Engagement Capability (CEC) Interoperability Program. Funding is to address the most severe data link related interoperability issues. This capability will significantly improve the quality of the tactical surveillance picture, reduce the possibility of leakers, mitigate Blue on Blue engagements and mid-identification of tracks. Provides stable sensor fusion foundation to support sensor/weapon coordination requirements.

This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	130.994	119.065	124.988	-	124.988
Current President's Budget	129.414	119.065	152.041	-	152.041
Total Adjustments	-1.580	0.000	27.053	-	27.053
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.892	0.000			
• SBIR/STTR Transfer	-2.472	0.000			
• Program Adjustments	0.000	0.000	10.199	-	10.199
• Rate/Misc Adjustments	0.000	0.000	16.854	-	16.854

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Project: 9999: *Congressional Adds*		
Congressional Add: *Adv Radar Innovation Fund - Air (Cong)*	20.000	-
Congressional Add Subtotals for Project: 9999	20.000	0.000
Congressional Add Totals for all Projects	20.000	0.000

Change Summary Explanation

Technical: The E-2D portion of Link-16/CEC Interoperability funding was moved, in FY14 and out, from RDTEN PE 0204152N, project 0463 E-2C Improvements, and properly aligned into this PE.

Schedule: Updated E-2D Advanced Hawkeye Aircraft Delivery Schedule, updated E-2D Counter Electronic Attack Schedule due to a funding rephase, updated In-Flight Refueling Schedule to update technical reviews and Flying Quality/Envelope Expansion Test. Added Secret Internet Protocol Router (SIPR) Chat, Tactical Targeting Networking Technology (TTNT). Added Link-16/Cooperative Engagement Capability (CEC) Interoperability schedule; and added a performance evaluation test in FY17. Schedule updated to reflect change in Full Rate Production (FRP) Decision date, added Verification of Correction of Deficiencies Testing as well as Integrated Tests D2 and D3, IFR schedule updated to extend SIL Testing, update the Flying Qualities Evaluation Test into two phases, add the Probe Static Test and update the first flight, Link-16 Crypto Modernization schedule updated to reflect incorporation of effort into Tactical Targeting Networking Technology (TTNT), Counter Electronic Attack (CEA) updated to reflect shift in the start of software development due to this effort being funded as a New Start and budgets are currently under a Continuing Resolution (CR).

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3051: *E-2D Adv Hawkeye*	3,891.368	109.414	119.065	152.041	-	152.041	190.742	201.692	220.186	149.144	127.455	5,161.107
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

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FY2014 starts an Advanced Mid-Term Interoperability Improvement Program (AMIIP) to address the most severe data link related interoperability issues. This capability will significantly improve the quality of the tactical surveillance picture, reduce the possibility of leakers, mitigate Blue on Blue engagments and mid-identification of tracks. Provides stable sensor fusion foundation to support sensor/weapon coordination requirements.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: System Development and Demonstration	9.477	1.000	14.736
Articles:	0	0	0
Description: System Development and Demonstration (SDD) contract with Northrop Grumman Corporation for SDD and Pilot Production efforts for the E-2D Advanced Hawkeye (AHE) Program.			
FY 2012 Accomplishments: Conduct OPEVAL.			
FY 2013 Plans: Funds provided to correct flight test deficiencies discovered during Initial Operational Test & Evaluation.			
FY 2014 Plans: Funds provided for Upper Transponder and Full Scale Fatigue Tests.			
Title: Naval Air Warfare Center Aircraft Division Engineering and Test Support	44.002	28.708	12.089
Articles:	0	0	0
Description: Fund Government Engineering, Contractor Engineering, and Classified Engineering Support. Perform Government oversight. Execute test program risk reduction efforts.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Funding provided for Operational Evaluation (OPEVAL), Naval Integrated Fire Control - Counter Air (NIFC-CA), In-Flight Refueling (IFR) and Follow-On Test & Evaluation (FOT&E) efforts. ***FY 2013 Plans:*** Funding provides continued support for Follow-On Test & Evaluation. Funds also provided for In-Flight Refueling (IFR) and Naval Integrated Fire Control - Counter Air (NIFC-CA) efforts. Funding levels decreases as we transition from OPEVAL to FOT&E. ***FY 2014 Plans:*** Funds provided for continued support of Follow-On Test & Evaluation and Developmental Testing for Mode 5 and Link-16 Cooperative Engagement Capability Interoperability. Funding levels decrease as this no longer funds OPEVAL or Naval Integrated Fire Control - Counter Air (NIFC-CA) efforts.			
Title: NC-130H/E-2D Classified Programs	14.103	5.700	5.762
Articles:	0	0	0
Description: Provides support for the E-2D Advanced Hawkeye (AHE) Classified Development efforts. ***FY 2012 Accomplishments:*** Funding is for the continuation of E-2D AHE Classified Development efforts. ***FY 2013 Plans:*** Funding is for the continuation of E-2D AHE Classified Development efforts. ***FY 2014 Plans:*** Funding is for the continuation of E-2D AHE Classified Development efforts.			
Title: Trainers	16.163	4.122	0.000
Articles:	0	0	
Description: Funds the design, development and delivery of the trainers in support of the E-2D AHE program. ***FY 2012 Accomplishments:*** Funding is for the development of the Weapon System Trainer and the Simulated Maintenance Trainer, also funds the delivery of the Operational Flight Trainer. ***FY 2013 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Funding is for Cooperative Engagement Capability Training Device Capability to train Theater Air Missile Defense and Dual E-2D Operations Tactical Training efforts.			
Title: Mode 5/S	17.047	34.637	6.803
Articles:	0	0	0
Description: Mode 5/S is the replacement/upgrade to the existing Identification Friend or Foe system. ***FY 2012 Accomplishments:*** Funding is for system development, integration and testing to support the incorporation of IFF Mode 5/S technology into the E-2D AHE IFF Interrogator mission equipment. Integration testing will include laboratory and ground tests. ***FY 2013 Plans:*** Funding is for continued system development, integration and test to support the incorporation of IFF Mode 5/S technology into the E-2D AHE IFF Interrogator mission equipment. Integration testing will include laboratory, ground and flight tests. Funding levels increase due to software development and flight test efforts. ***FY 2014 Plans:*** Funding is for continued system development, integration and testing to support the incorporation of IFF Mode 5/S technology into the E-2D AHE IFF Interrogator mission equipment. Integration testing will include laboratory, ground and flight tests. Funding levels decrease due to reduced efforts for system development, software development and flight test.			
Title: In-Flight Refueling	6.696	33.100	68.900
Articles:	0	0	0
Description: Funds the system development and testing to support the incorporation of In-Flight Refueling capability into the E-2D AHE aircraft. Emphasis during system development is on system redesign, air vehicle design, human systems integration and design, including interior/lighting modifications and seat replacement. Flight testing is required to evaluate field of view, thermal and aerodynamic loads, kinematic performance, and handling qualities. ***FY 2012 Accomplishments:*** Funding is for the system development and risk reduction efforts. ***FY 2013 Plans:*** Funding is provided for the start of Engineering & Manufacturing Development (E&MD) of In-Flight Refueling and continued system development efforts. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Funding provided for continued Engineering & Manufacturing Development (E&MD) of In-Flight Refueling and System Integration Laboratory (SIL) testing.			
Title: Guard Radio	1.926	3.598	3.005
Articles:	0	0	0
Description: The Ultra High Frequency (UHF) Guard Radio allows the aircrew to monitor the emergency UHF Guard frequency without having to dedicate a specific radio, freeing that radio up for use in the tactical mission. Due to the UHF Tunable Filter Amplifiers, the ARC-210 radios can not provide continuous UHF guard monitoring, although the internal guard receiver is operational. A separate UHF guard receiver is provided for monitoring the UHF guard (243 MHz) frequency. It is powered by the Guard switch located on the Communication/Control Display Unit Power Panel.			
FY 2012 Accomplishments: Funding is for engineering efforts and system integration.			
FY 2013 Plans: Funds provided for continued engineering and systems integration suppport.			
FY 2014 Plans: Funds provided for continued engineering, systems integration support and test.			
Title: E-2D Counter Electronic Attack	0.000	7.400	0.000
Articles:		0	
Description: Funds the mission system development and testing of the capability to counter Direct Radar Frequency Measurement (DRFM) radar threats. The E&MD effort will focus on integration of capability in the radar and mission computer and display systems, system integration, and laboratory and flight test validation.			
FY 2013 Plans: Funds provided for initiation of E&MD for E-2D Counter Electronic Attack capability.			
Title: Tactical Targeting Networking Technology	0.000	0.000	19.220
Articles:			0
Description: Tactical Targeting Networking Technology (TTNT) provides Advanced Tactical Data Link functionality into the E-2D. This effort includes replacing the MIDS LVT radio with MIDS-JTRS that has incorporated the TTNT. MIDS JTRS with TTNT is a key enabler for E-2D sensor netting capability in support of the Naval Integrated Fire Control-Counter Air mission.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Funding is provided for Development, Design and Support costs.			
Title: Link-16/Crypto Modernization	0.000	0.800	0.000
Articles:		0	
Description: This effort was previously included under Naval Air Warfare Center Aircraft Division Engineering and Test Support.			
FY 2013 Plans: Funds provided for Systems Hardware Development.			
Title: SIPRChat	0.000	0.000	4.845
Articles:			0
FY 2014 Plans: Funds provided for System Development & Design, Software and Router Integration.			
Title: Naval Integrated Fire Control Counter Air Inc 1 Testing	0.000	0.000	10.000
Articles:			0
FY 2014 Plans: Funds provided for software development support and developmental flight tests.			
Title: Link-16/Cooperative Engagement Capability (CEC) Interoperability Program	0.000	0.000	6.681
Articles:			0
FY 2014 Plans: Funds provided for systems engineering and systems development support.			
Accomplishments/Planned Programs Subtotals	109.414	119.065	152.041

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0195 : *E-2D AHE*	1,044.813	984.677	1,263.649		1,263.649	1,242.758	1,323.427	1,393.566	1,262.206	4,067.297	18,631.376
• APN/0605: *Initial Spares - E-2*	30.012	55.383	16.612		16.612	11.403	15.069	17.511	26.534	24.135	484.508
• APN/0544: *E-2 Series*	0.000	0.000	8.953		8.953	13.798	18.886	22.546	76.561	304.832	445.576

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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D. Acquisition Strategy

Acquisition Strategy was signed by Milestone Decision Authority, Under Secretary of Defense for Acquisition, Technology and Logistics on 29 Dec 2008. Milestone C approval to proceed into Production and Deployment was given 11 June 2009 by the Defense Acquisition Board (DAB). Certification for entrance into Initial Operational Test & Evaluation was received on 14 Feb 2012. Full Rate Production Acquisition Strategy approved on 20 August 2012. Initial Operational Test & Evaluation concluded 1 October 2012. Successfully held a Defense Acquisition Board for Full Rate Production. Received a successful decision to enter into Full Rate Production (FRP) on 31 January 2013.

E. Performance Metrics

Successfully held a Defense Acquisition Board for Full Rate Production on 31 January 2013 for 55 aircraft.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPAF	Northrop Grumman Corporation (NGC):Bethpage, NY	2,873.687	18.815	Feb 2012	13.834	Feb 2013	0.000		-		0.000	0.000	2,906.336	2,906.336
Primary Hardware Development - Follow On	TBD	TBD:TBD	0.000	0.000		0.000		28.204	Feb 2014	-		28.204	161.712	189.916	
Primary Hardware - In-Flight Refueling	SS/CPAF	NGC:Bethpage, NY	0.000	5.102	May 2012	24.459	May 2013	56.320	May 2014	-		56.320	178.649	264.530	264.530
Training Development	C/CPIF	Rockwell Collins:Cedar Rapids, IA	105.067	15.204	May 2012	4.122	May 2013	0.000		-		0.000	0.000	124.393	124.393
Training Development	C/CPIF	Lockheed Martin:Liverpool, NY	6.734	0.238	May 2012	0.000		0.000		-		0.000	0.000	6.972	6.972
Systems Engineering	PO	Navy Syst Mgt Activity:Arlington, VA	162.273	14.103	Mar 2012	0.500	Mar 2013	0.000		-		0.000	0.000	176.876	
GFE	Various	Various:Various	31.509	0.000		0.000		3.690	May 2014	-		3.690	1.458	36.657	
Award Fees	SS/CPAF	NGC:Bethpage, NY	142.874	5.017	Oct 2012	3.012	Oct 2013	0.000		-		0.000	0.000	150.903	150.903
Training Development	TBD	TBD:TBD	0.000	0.000		0.000		0.000		-		0.000	1.226	1.226	
Prior Year Prod Dev costs no longer funded in FYDP	Various	Various:Various	168.042	0.000		0.000		0.000		-		0.000	0.000	168.042	
		Subtotal	3,490.186	58.479		45.927		88.214		0.000		88.214	343.045	4,025.851	

Remarks

Totals may not add due to rounding.

Award Fee:

Period 1 FY04 - 90%	Period 7 FY08 - 94%
Period 2 FY04 - 91%	Period 8 FY09 - 93%
Period 3 FY05 - 80%	Period 9 FY09 - 95%
Period 4 FY06 - 94%	Period 10 FY10 - 100%
Period 5 FY06 - 100%	Period 11 FY11 - 95%
Period 6 FY07 - 95%	Period 12 FY12 - 95%

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	Various	Various:Various	9.400	0.000		0.000		0.250	Nov 2013	-		0.250	3.127	12.777	
Software Development	SS/CPIF	NGC:Bethpage, NY	24.223	2.050	Apr 2012	15.726	Apr 2013	14.222	Apr 2014	-		14.222	61.824	118.045	118.045
Integrated Logistics Support	Various	Various:Various	7.825	0.000		0.250	Nov 2012	1.263	Nov 2013	-		1.263	6.007	15.345	
Integrated Logistics Support	C/CPAF	NGC:Bethpage, NY	0.000	0.000		0.720	Mar 2013	1.667	Mar 2014	-		1.667	3.257	5.644	5.644
Government Engineering Sup	WR	Naval Air Warfare Center Aircraft Division (NAWCAD:Pax River, MD	82.202	5.756	Nov 2011	7.646	Nov 2012	13.258	Nov 2013	-		13.258	68.663	177.525	
Government Engineering Support	WR	Naval Air Warfare Center Training Systems Division:Orlando, FL	9.404	0.722	Nov 2011	0.000		0.000		-		0.000	0.000	10.126	
Government Engineering Sup	Various	Various:Various	11.262	0.503	Nov 2011	1.262	Nov 2012	2.102	Nov 2013	-		2.102	8.873	24.002	
Contractor Engineering Supt ETS	C/CPFF	Wyle Labs:Huntsville, AL	21.353	2.162	Dec 2011	1.600	Dec 2012	3.570	Dec 2013	-		3.570	9.313	37.998	37.988
Contractor Engineering Support ETS	C/CPFF	Deloitte:Lexington Park, MD	3.356	0.427	Dec 2011	0.000		0.000		-		0.000	0.000	3.783	3.783
Technical Data	Various	Various:Various	0.133	0.120	Mar 2012	0.491	Mar 2013	1.108	Mar 2014	-		1.108	3.450	5.302	
Configuration Management	TBD	Various:Various	0.000	0.000		0.151	Dec 2012	0.347	Dec 2013	-		0.347	1.021	1.519	
Software Development	Various	NSMA:Arlington, VA	0.000	0.000		7.019	Nov 2012	0.236	Nov 2013	-		0.236	67.271	74.526	
Software Development	TBD	Various:Various	0.000	0.000		0.000		5.103	Apr 2014	-		5.103	108.719	113.822	
Prior Year Support costs no longer funded in FYDP	Various	Various:Various	29.908	0.000		0.000		0.000		-		0.000	0.000	29.908	
		Subtotal	199.066	11.740		34.865		43.126		0.000		43.126	341.525	630.322	

Remarks

Totals may not add due to rounding.

Integrated Logistics Support, Government Engineering Support, Contractor Engineering Support, Technical Data and Configuration Management - various contractors and award dates throughout the fiscal year.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support and Contractor Support increases in FY14 for NIFC-CA Incr 1A Testing and multiple New Starts in that year which include TTNT, SIPRChat and Link-16/CEC.															

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (T&E)	WR	NAWCAD:Pax River, MD	68.918	0.000		20.844	Nov 2012	8.301	Nov 2013	-		8.301	112.895	210.958	
Developmental T & E	Various	Various:Various	25.965	1.411	Dec 2011	6.338	Dec 2012	5.073	Dec 2013	-		5.073	20.398	59.185	
Developmental T & E 1	WR	Various:Various	0.000	4.572	Mar 2012	3.898	Mar 2013	2.616	Mar 2014	-		2.616	25.451	36.537	
Developmental T&E ETS	C/CPFF	Wyle Labs:Huntsville, AL	9.373	2.972	Dec 2011	2.040	Dec 2012	0.000		-		0.000	0.000	14.385	14.385
Developmental T&E ETS	C/FFP	L-3 Communications:Newport News, VA	7.023	1.809	Dec 2011	1.125	Dec 2012	0.225	Dec 2013	-		0.225	1.741	11.923	11.923
Operational T & E	WR	NAWCAD:Pax River, MD	0.146	21.172	Nov 2011	0.865	Nov 2012	0.880	Nov 2013	-		0.880	14.467	37.530	
Operational T & E	Various	Various:Various	4.273	0.759	Dec 2011	0.000		0.000		-		0.000	0.500	5.532	
Developmental T & E	C/CPFF	Airborne Tactical Advantage Co, LLC:Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	2.767	2.767	2.767
Developmental T&E ETS	Various	Various:Various	4.476	2.097	Dec 2011	0.000		0.000		-		0.000	0.000	6.573	
Developmental T & E	C/CPFF	Wyle Labs - ESTEL:Huntsville, AL	0.000	2.000	Jan 2012	2.060	Jan 2013	2.122	Jan 2014	-		2.122	16.228	22.410	22.410
Test Assets	TBD	NGC:Bethpage, NY	0.000	0.000		0.000		0.000		-		0.000	4.493	4.493	4.493
Prior Year T&E costs no longer funded in FYDP	Various	Various:Various	13.055	0.000		0.000		0.000		-		0.000	0.000	13.055	
		Subtotal	133.229	36.792		37.170		19.217		0.000		19.217	198.940	425.348	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Totals may not add due to rounding.
Developmental Test & Evaluation (T&E), Developmental T&E, Engineering & Techncial Services and Operational T&E - various contractors and award dates throughout the fiscal year.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cont Eng Supp Management & Prof Supp Services (MSS)	Various	Various:Various	2.691	0.903	Dec 2011	0.192	Dec 2012	0.158	Dec 2013	-		0.158	0.783	4.727	
Cont Eng Supp MSS	C/CPFF	Wyle Labs:Huntsville, AL	10.938	0.345	Dec 2011	0.000		0.000		-		0.000	0.000	11.283	11.283
Govt Eng Support	WR	NAWCAD:Pax River, MD	10.562	0.610	Nov 2011	0.402	Nov 2012	0.848	Dec 2013	-		0.848	2.881	15.303	
Prog Management Supp	Various	Various:Various	1.920	0.095	Nov 2011	0.104	Nov 2012	0.068	Nov 2013	-		0.068	0.156	2.343	
Travel	Various	Various:Various	2.144	0.450	Oct 2011	0.405	Oct 2012	0.410	Oct 2013	-		0.410	1.888	5.297	
Prior Year Mgmt costs no longer funded in FYDP	Various	Various:Various	40.632	0.000		0.000		0.000		-		0.000	0.000	40.632	
		Subtotal	68.887	2.403		1.103		1.484		0.000		1.484	5.708	79.585	

Remarks

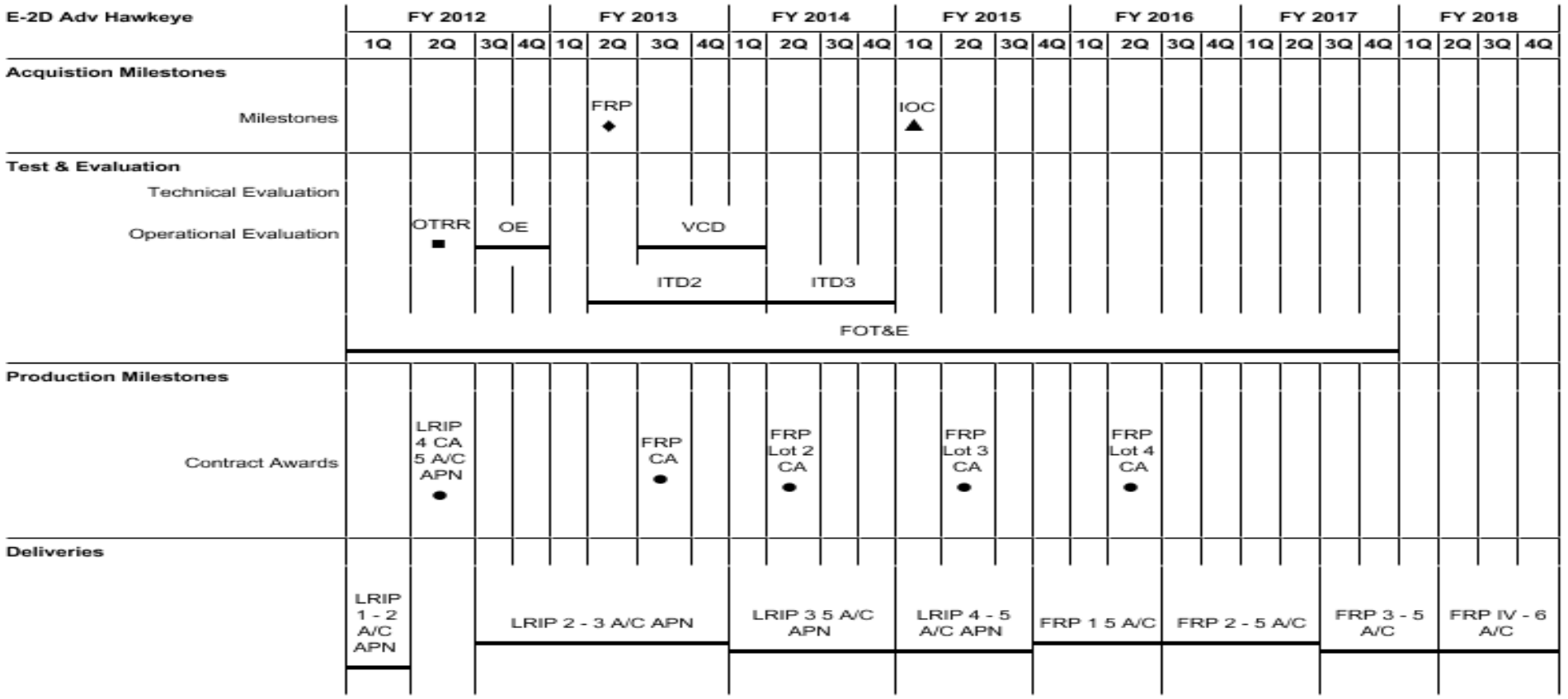
Totals may not add due to rounding.
Contractor Engineering Support, Government Enginnering Support, Program Support and Travel - various contractors and/or award dates throughout the fiscal year.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3,891.368	109.414		119.065		152.041		0.000		152.041	889.218	5,161.106	

Remarks

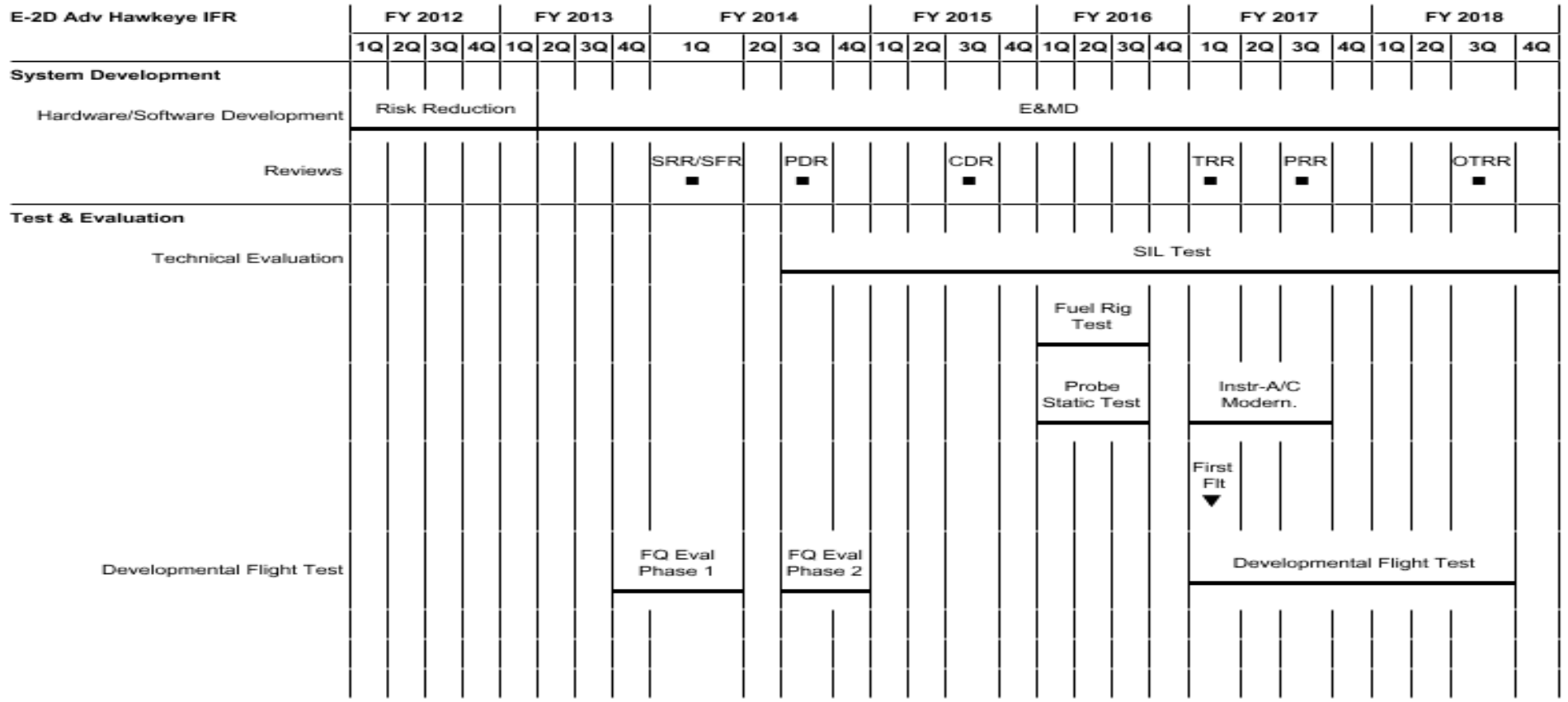
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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*



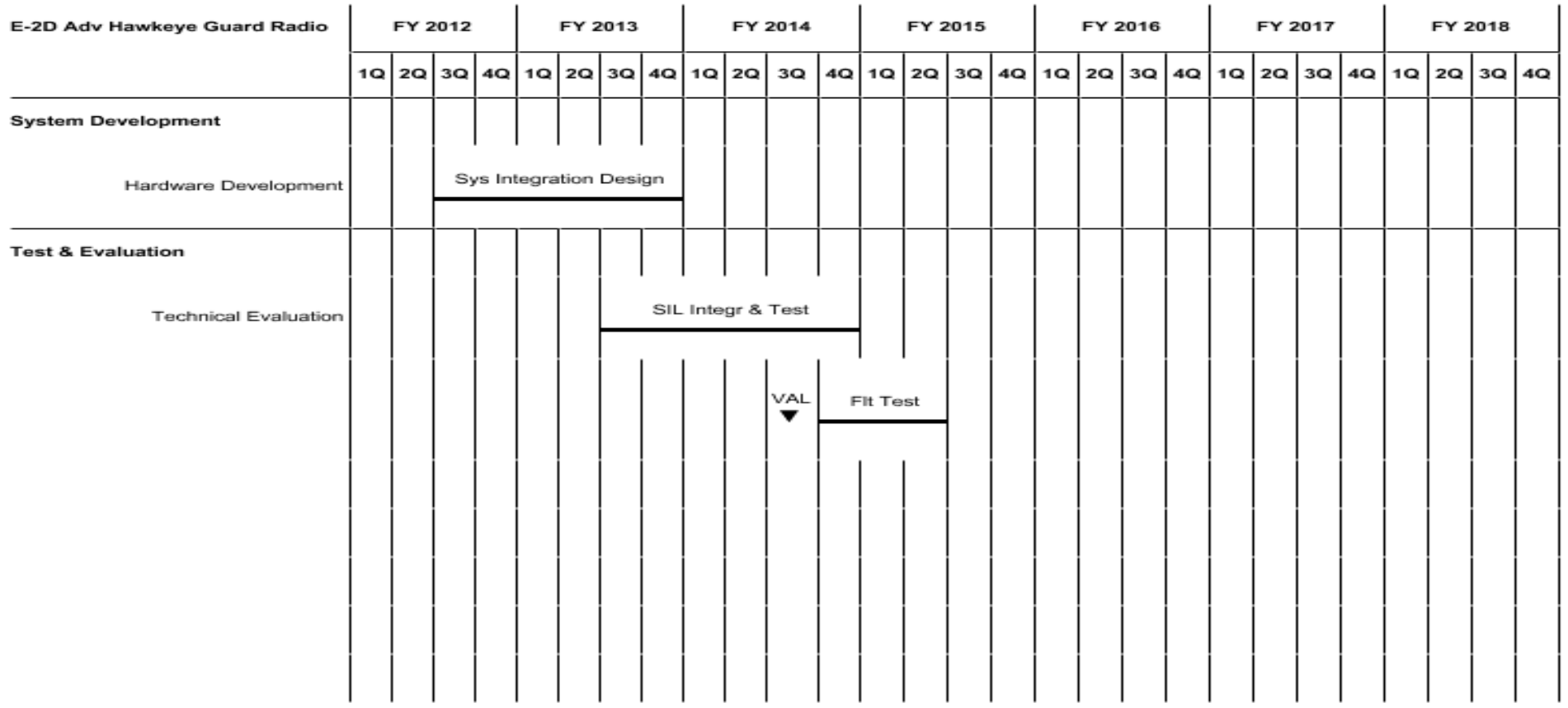
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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*



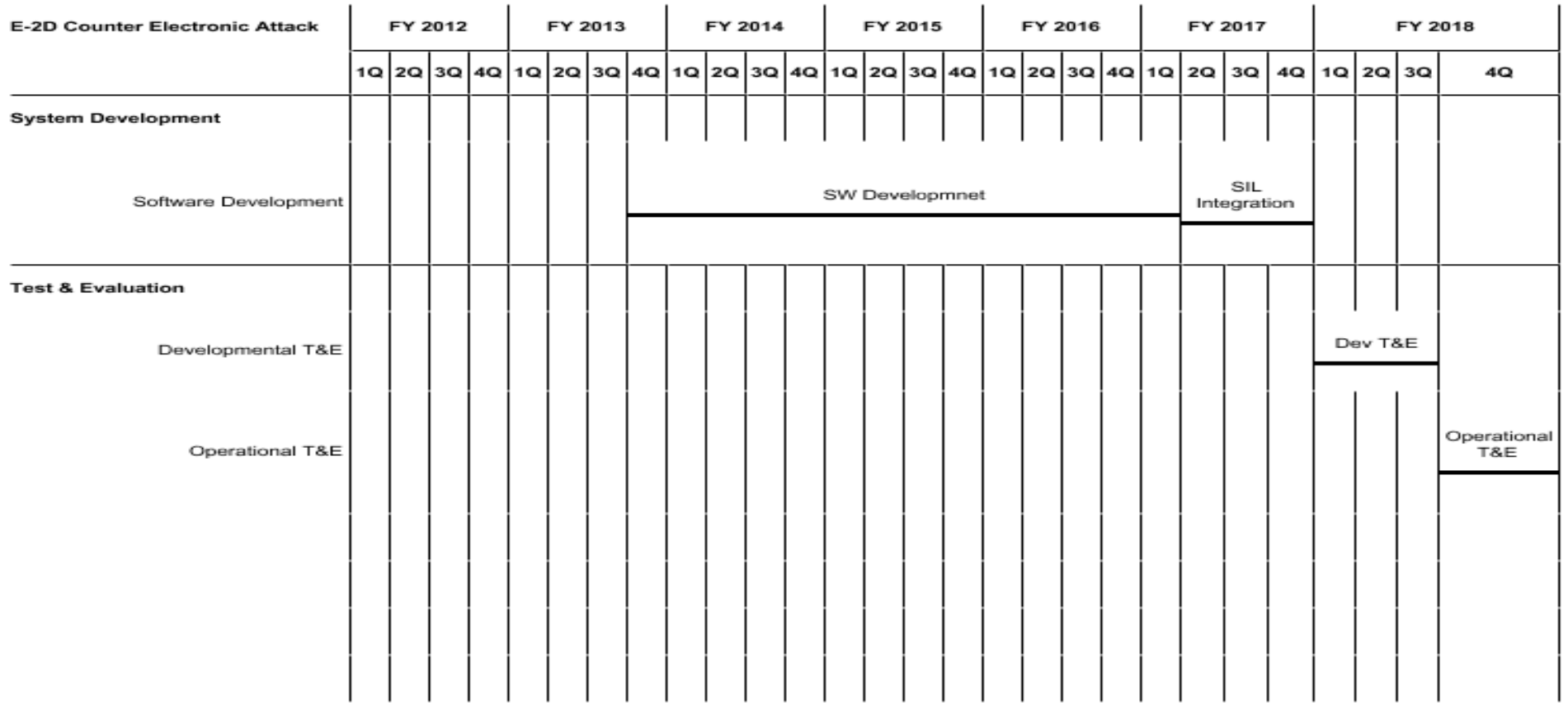
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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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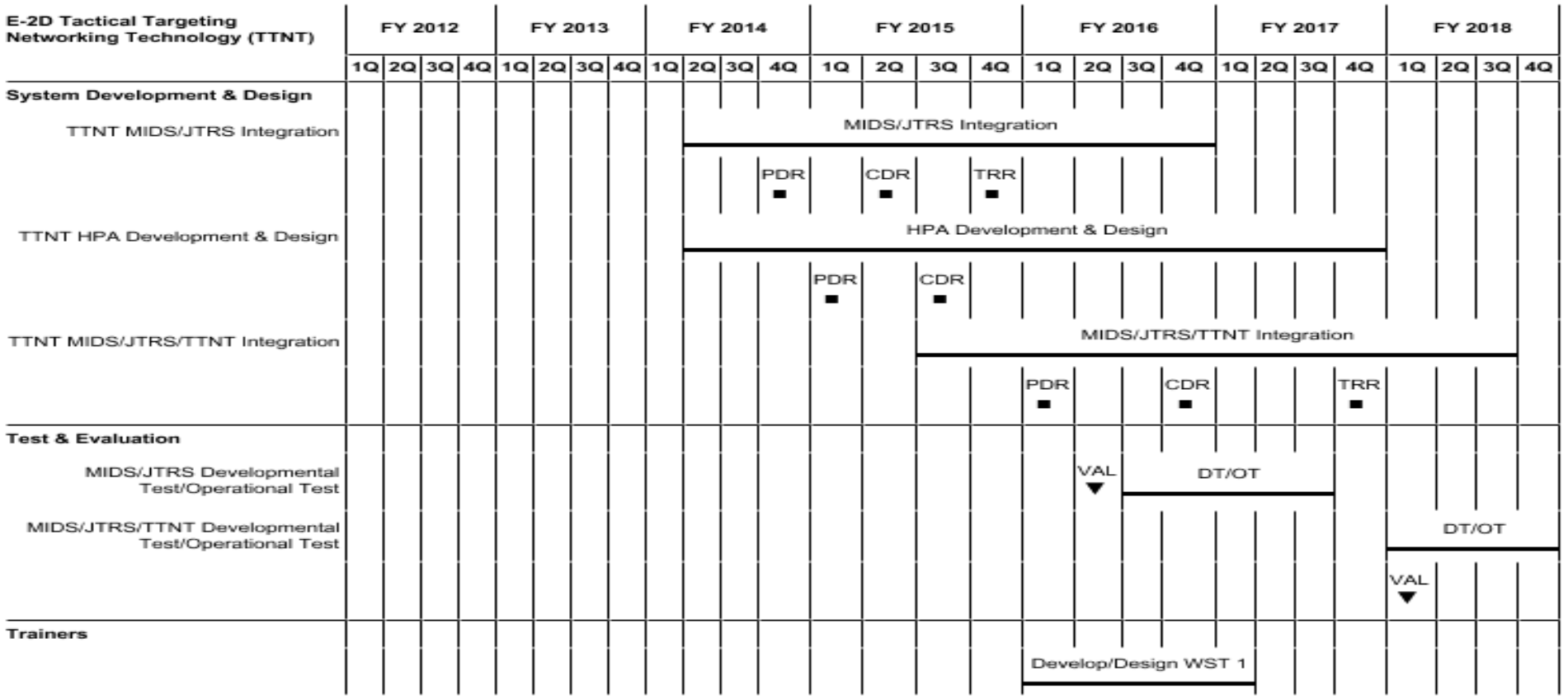
2014PB - 0604234N - 3051

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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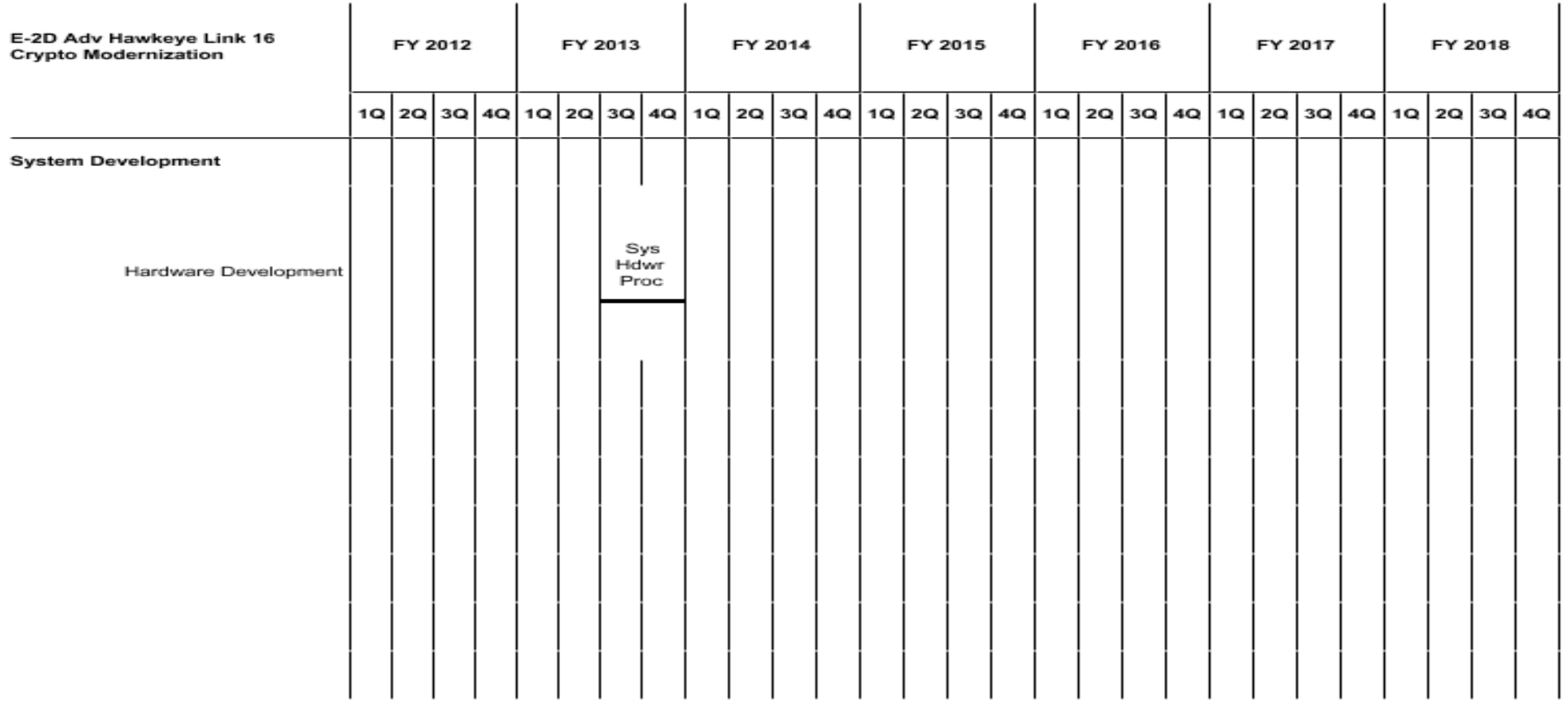
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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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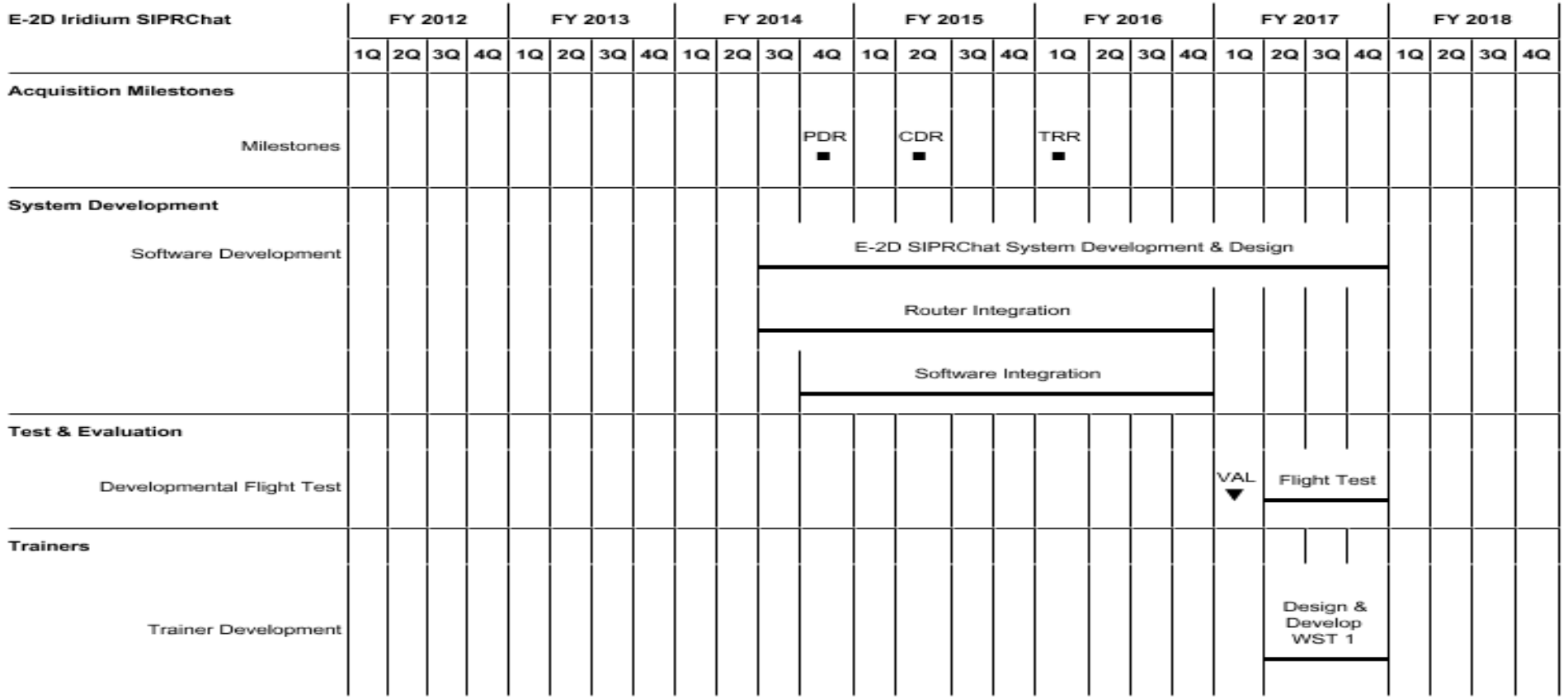
2014PB - 0604234N - 3051

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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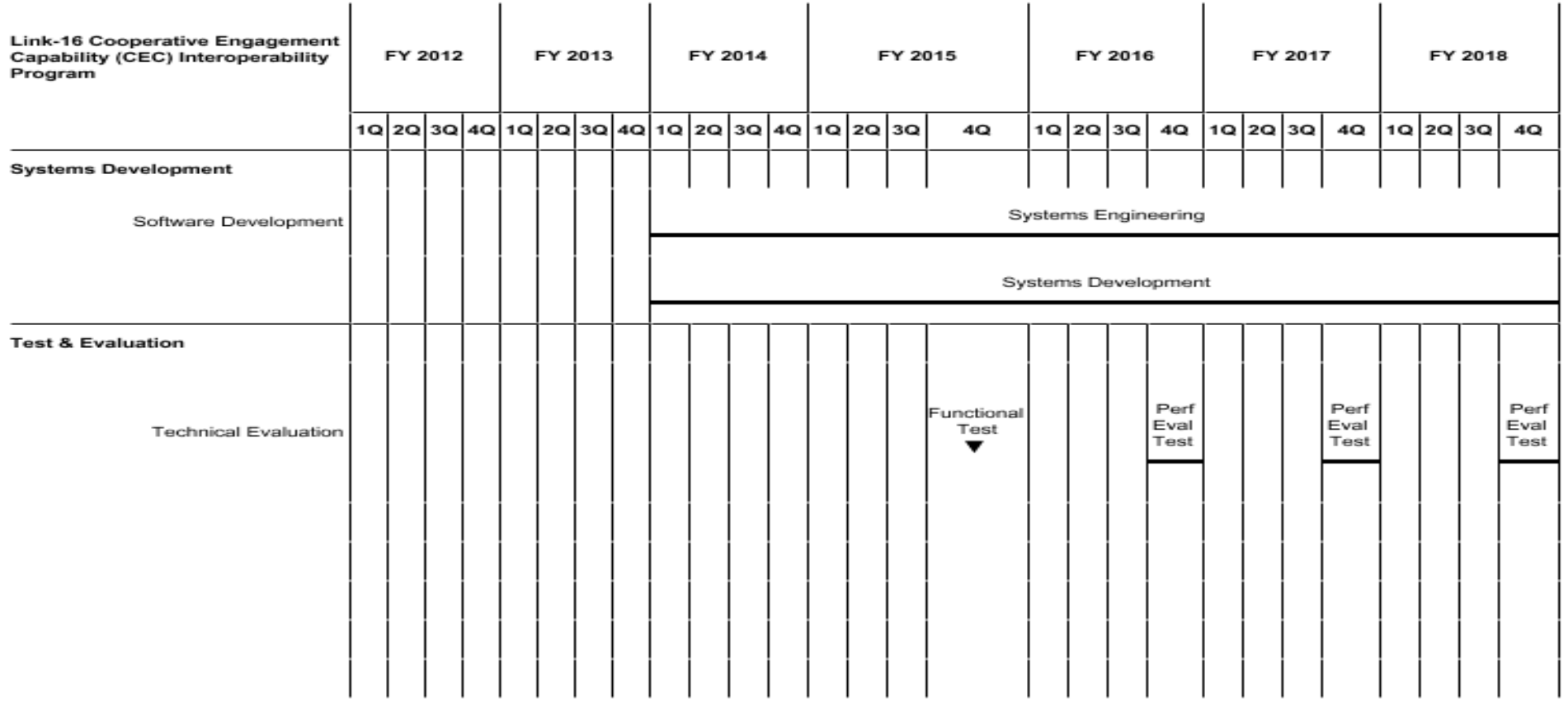
2014PB - 0604234N - 3051

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
E-2D Adv Hawkeye				
Acquistion Milestones: Milestones: Acquistion Milestones - Full Rate Production (FRP)	2	2013	2	2013
Acquistion Milestones: Milestones: Acquistion Milestones - Initial Operational Capabilities	1	2015	1	2015
Test & Evaluation: Operational Evaluation: Test & Evaluation Milestones - Operational Test - Readiness Review	2	2012	2	2012
Test & Evaluation: Operational Evaluation: Test & Evaluation Milestones - Operational Evaluation	3	2012	4	2012
Test & Evaluation: Operational Evaluation: Verification of Correction of Deficiencies (VCD)	3	2013	1	2014
Test & Evaluation: Operational Evaluation: Integrated Test D2	2	2013	1	2014
Test & Evaluation: Operational Evaluation: Integrated Test D3	2	2014	4	2014
Test & Evaluation: Operational Evaluation: Follow On Test & Evaluation	1	2012	4	2017
Production Milestones: Contract Awards: Production Milestones - LRIP IV CA (5 A/C APN)	2	2012	2	2012
Production Milestones: Contract Awards: Production Milestones - FRP Lot I CA	3	2013	3	2013
Production Milestones: Contract Awards: Production Milestones - FRP Lot II CA	2	2014	2	2014
Production Milestones: Contract Awards: Production Milestones - FRP Lot III CA	2	2015	2	2015
Production Milestones: Contract Awards: Production Milestones - FRP Lot IV CA	2	2016	2	2016
Deliveries: Production Deliveries - LRIP I (2 A/C APN)	1	2012	1	2012
Deliveries: Production Deliveries - LRIP II (3 A/C APN)	3	2012	4	2013
Deliveries: Production Deliveries - LRIP III (5 A/C APN)	1	2014	4	2014
Deliveries: Production Deliveries - LRIP IV (5 A/C APN)	1	2015	3	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Deliveries: Production Deliveries - FRP I (5 A/C)	4	2015	2	2016
Deliveries: Production Deliveries - FRP II (5 A/C)	3	2016	2	2017
Deliveries: Production Deliveries - FRP III (5 A/C)	3	2017	1	2018
Deliveries: Production Deliveries - FRP IV (6 A/C)	2	2018	4	2018
E-2D Adv Hawkeye IFR				
System Development: Hardware/Software Development: In-Flight Refueling - Valve Trade Study - Risk Reduction	1	2012	1	2013
System Development: Hardware/Software Development: In-Flight Refueling - Engineering & Manufacturing Development	2	2013	4	2018
System Development: Reviews: In-Flight Refueling - System Requirements Review2/ System Functional Review	1	2014	1	2014
System Development: Reviews: In-Flight Refueling - Preliminary Design Review	3	2014	3	2014
System Development: Reviews: In-Flight Refueling - Critical Design Review	3	2015	3	2015
System Development: Reviews: In-Flight Refueling - Test Readiness Review	1	2017	1	2017
System Development: Reviews: In-Flight Refueling - Production Readiness Review	3	2017	3	2017
System Development: Reviews: In-Flight Refueling - Operational Test Readiness Review	3	2018	3	2018
Test & Evaluation: Technical Evaluation: In-Flight Refueling - SIL Probe Static Test	3	2014	4	2018
Test & Evaluation: Technical Evaluation: In-Flight Refueling - Fuel Rig Test	1	2016	3	2016
Test & Evaluation: Technical Evaluation: In-Flight Refueling - Probe Static Test	1	2016	3	2016
Test & Evaluation: Technical Evaluation: In-Flight Refueling - Instrumentation/Aircraft Mod	1	2017	3	2017
Test & Evaluation: Technical Evaluation: In-Flight Refueling - First Flight	1	2017	1	2017
Test & Evaluation: Developmental Flight Test: Developmental Flight Test	1	2017	3	2018
Test & Evaluation: Developmental Flight Test: Flying Qualities Evaluation Test Phase 1	4	2013	1	2014
Test & Evaluation: Developmental Flight Test: Flying Qualities Evaluation Test Phase 2	3	2014	4	2014
E-2D Adv Hawkeye Guard Radio				

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
System Development: Hardware Development: Guard Radio - System Integration Design	3	2012	4	2013
Test & Evaluation: Technical Evaluation: Guard Radio - SIL Integration & Test	3	2013	4	2014
Test & Evaluation: Technical Evaluation: Guard Radio - VAL	3	2014	3	2014
Test & Evaluation: Technical Evaluation: Guard Radio - Flight Test	4	2014	2	2015
E-2D Counter Electronic Attack				
System Development: Software Development: Counter Electronic Attack - SW Development	4	2013	1	2017
System Development: Software Development: Counter Electronic Attack - SIL Integration	2	2017	4	2017
Test & Evaluation: Developmental T&E: Counter Electronic Attack - DT&E Tech Evaluation	1	2018	3	2018
Test & Evaluation: Operational T&E: Counter Electronic Attack - OT&E	4	2018	4	2018
E-2D Tactical Targeting Networking Technology (TTNT)				
System Development & Design: TTNT MIDS/JTRS Integration: E-2D TTNT MIDS/ JTRS Integration	2	2014	4	2016
System Development & Design: TTNT MIDS/JTRS Integration: TTNT - Preliminary Design Review	4	2014	4	2014
System Development & Design: TTNT MIDS/JTRS Integration: TTNT - Critical Design Review	2	2015	2	2015
System Development & Design: TTNT MIDS/JTRS Integration: TTNT -Test Readiness Review	4	2015	4	2015
System Development & Design: TTNT HPA Development & Design: TTNT Hight Power Amplifier Development & Design	2	2014	4	2017
System Development & Design: TTNT HPA Development & Design: TTNT High Power Amplifier Preliminary Design Review	1	2015	1	2015
System Development & Design: TTNT HPA Development & Design: TTNT High Power Amplifier Critical Design Review	3	2015	3	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
System Development & Design: TTNT MIDS/JTRS/TTNT Integration: E-2D MIDS/ JTRS/TTNT Integration	3	2015	3	2018
System Development & Design: TTNT MIDS/JTRS/TTNT Integration: TTNT - Preliminary Design Review	1	2016	1	2016
System Development & Design: TTNT MIDS/JTRS/TTNT Integration: TTNT - Critical Design Review	4	2016	4	2016
System Development & Design: TTNT MIDS/JTRS/TTNT Integration: TTNT -Test Readiness Review	4	2017	4	2017
Test & Evaluation: MIDS/JTRS Developmental Test/Operational Test: Developmental Test - Operational Test	3	2016	3	2017
Test & Evaluation: MIDS/JTRS Developmental Test/Operational Test: MIDS/JTRS VAL	2	2016	2	2016
Test & Evaluation: MIDS/JTRS/TTNT Developmental Test/Operational Test: Developmental Test - Operational Test	1	2018	4	2018
Test & Evaluation: MIDS/JTRS/TTNT Developmental Test/Operational Test: MIDS/ JTRS/TTNT VAL	1	2018	1	2018
Trainers: Trainer Developmnet & Design WST 1	1	2016	1	2017
E-2D Adv Hawkeye Link 16 Crypto Modernization				
System Development: Hardware Development: Link-16 Crypto Modernization - Multifunctional Information Distribution System Hardware Procurement	3	2013	4	2013
E-2D Iridium SIPRChat				
Acquisition Milestones: Milestones: SIPRChat - Preliminary Design Review	4	2014	4	2014
Acquisition Milestones: Milestones: SIPRChat - Critical Design Review	2	2015	2	2015
Acquisition Milestones: Milestones: SIPRChat -Test Readiness Review	1	2016	1	2016
System Development: Software Development: E-2D SIPRChat System Development & Design	3	2014	4	2017
System Development: Software Development: Router Integration	3	2014	4	2016
System Development: Software Development: Software Integration	4	2014	4	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 3051: *E-2D Adv Hawkeye*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test & Evaluation: Developmental Flight Test: SIPRChat VAL	1	2017	1	2017
Test & Evaluation: Developmental Flight Test: SIPRChat Flight Test	2	2017	4	2017
Trainers: Trainer Development: SIPRChat Trainer Design & Developo WST 1	2	2017	4	2017
Link-16 Cooperative Engagement Capability (CEC) Interoperability Program				
Systems Development: Software Development: Systems Engineering	1	2014	4	2018
Systems Development: Software Development: Systems Development	1	2014	4	2018
Test & Evaluation: Technical Evaluation: Functional Test	4	2015	4	2015
Test & Evaluation: Technical Evaluation: Performance Evaluation Test	4	2016	4	2016
Test & Evaluation: Technical Evaluation: Performance Evaluation Test II	4	2017	4	2017
Test & Evaluation: Technical Evaluation: Performance Evaluation Test III	4	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	20.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	20.000
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Congressional Add

B. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013
Congressional Add: Adv Radar Innovation Fund - Air (Cong)	20.000	-
FY 2012 Accomplishments: N/A		
Congressional Adds Subtotals	20.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not required for Congressional Adds

E. Performance Metrics

Not required for Congressional Adds

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604234N: *Advanced Hawkeye*	PROJECT 9999: *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/FFP	Northrop Grumman Corporation (NGC):Bethpage, NY	0.000	19.150	Apr 2013	0.000		0.000		-		0.000	0.000	19.150	19.150
Primary Hardware Development	Various	NSMA:Arlington, VA	0.000	0.400	Sep 2012	0.000		0.000		-		0.000	0.000	0.400	
		Subtotal	0.000	19.550		0.000		0.000		0.000		0.000	0.000	19.550	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support ETS	C/CPFF	Imagine One Technology and Management LTD:Colonial Beach, VA	0.000	0.450	Apr 2013	0.000		0.000		-		0.000	0.000	0.450	0.450
		Subtotal	0.000	0.450		0.000		0.000		0.000		0.000	0.000	0.450	0.450

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	20.000		0.000		0.000		0.000		0.000	0.000	20.000	

Remarks

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	1,493.485	65.617	31.105	47.123	-	47.123	46.789	47.444	48.451	49.259	Continuing	Continuing
2279: *4BW/4BN Upgrade*	1,493.485	65.617	31.105	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,590.207
3359: *H-1 Improvements*	0.000	0.000	0.000	47.123	-	47.123	46.789	47.444	48.451	49.259	Continuing	Continuing
MDAP/MAIS Code(s): 101												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Efforts previously budgeted in Project 2279 are now budgeted in Project 3359 for FY 2014 through FY 2018.

A. Mission Description and Budget Item Justification

The mission of the AH-1W attack helicopter is to provide rotary wing close air support, anti-armor, armed escort, armed/visual reconnaissance, survivability enhancements, and fire support coordination capabilities under day/night and adverse weather conditions. The mission of the UH-1N utility helicopter is to provide command and control and combat assault support under day/night and adverse weather conditions and special operations support; supporting arms coordination and aeromedical evacuation. Major modifications for both aircraft include 37 AH-1Ws converted to AH-1Zs, build 152 new AH-1Zs, remanufacture ten (10) H-1N helicopters and build 150 new UH-1Y models. AH-1Z and UH-1Y models include a 4-bladed, composite rotor system with semi-automatic bladefold, performance-matched transmissions, T700 Engine Digital Electronic Control Units, 4-bladed tail rotors and drive systems, more effective stabilizers, upgraded landing gear, tail pylon structural modifications, and common, fully integrated cockpits and avionics systems. These upgrades will add 10,000 flight hours to AH-1Z/UH-1Y airframes. The fully integrated cockpits reduce operator workload and improve situational awareness, thus increasing safety and reducing the rate of aircraft attrition. They will provide considerable growth potential for future weapon systems and avionics, which will significantly increase mission effectiveness and survivability. The cockpits will also include integration of onboard mission planning, communications, digital fire control, self-navigation, night navigation/targeting, air-to-ground missile and air-launched intercept missile weapon systems management in nearly identical crew stations, which significantly reduces training requirements. These upgrades maximize commonality between the two aircraft and provide needed improvements in crew and passenger survivability, payload, power available, endurance, range, airspeed, maneuverability and supportability.

Follow-on improvements to sensors and weapons integration, avionics, and air vehicle components will address deficiencies, systems safety, obsolescence, reliability, supportability and cost growth issues. Improvements will include all associated System Configuration Set updates as well as integration and testing related to the aircraft platforms.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*		R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*			
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	67.569	31.105	47.226	-	47.226
Current President's Budget	65.617	31.105	47.123	-	47.123
Total Adjustments	-1.952	0.000	-0.103	-	-0.103
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.952	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.103	-	-0.103

Change Summary Explanation

Technical:

Cuff and Yoke (Step 3 Phase), redesign of the key life-limited components in the main rotor head system for life cycle cost savings, was curtailed when the return on investment data was evaluated with in-service data collected since EMD phase. The in-service cuff is the main life-limited component of the rotor system and has shown markedly better fatigue-life performance under demanding operating environmental conditions in theater than was predicted by the original conservative EMD modeling estimates and fatigue tests. Consequently, the in-service cuff life-limit was largely extended after review of fleet data and test data analyses. With the new cuff fatigue life-limit, the re-estimated total cost of redesign, manufacture, procurement, and supportability of the new improved system was projected to be only marginally better than the in-service design, especially if the in-service yoke capabilities are similar to the cuff. Therefore, the final activities associated with the redesign effort have been focused on additional fatigue and strength characterization of the in-service yoke component.

Mission computer hardware redesign investigation was initiated to assess the feasibility of addressing obsolescence, reliability, supportability and cost growth issues and was completed in FY 2012. The evaluation established that a Technical Refresh Mission Computer (TRMC) is needed to mitigate deficiencies, microelectronic parts obsolescence, information assurance/program security mandates and shortfalls, reduce Operation & Support costs beyond the Fiscal Year Defense Plan, and also be available for production incorporation in Lot 11 via System Configuration Set (SCS) 8.0. Consequently, TRMC redesign was commenced and a Preliminary Design Review was completed in 2Q12.

Schedule:

Software Development Schedule: Completion date for System Configuration Set (SCS) 6.0 was extended from 4Q12 to 2Q13 because of limited test aircraft availability. Rerouting of aircraft parts was required to support Operation Enduring Freedom in Afghanistan and standup of squadrons with H-1 Upgrades aircraft that were deployed OCONUS in Marine Expeditionary Units. Consequently, some functionality being developed in SCS 6.0 that required extensive flight testing, like Ground Proximity Warning System, will be moved to development and completion in SCS 7.0. Changes to SCS 8.0 PDR and Critical Design Review from 4Q13 and 2Q14 to 2Q12 & 4Q13 to reflect actual completion and current plan.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604245N: *H-1 Upgrades*

Cuff and Yoke Schedule: Preliminary Design Review, Critical Design Review, and Developmental Test are no longer required. See Technical Change Summary Explanation above.

Follow-on efforts not included in the baseline Engineering Manufacturing Development H-1 Upgrades ACAT 1C program have been moved from FY 2014 through the FYDP into Project Unit 3359, H-1 Improvements.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 2279: *4BW/4BN Upgrade*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2279: *4BW/4BN Upgrade*	1,493.485	65.617	31.105	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,590.207
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Efforts previously budgeted in Project 2279 are now budgeted in Project 3359 for FY 2014 through FY 2018.

A. Mission Description and Budget Item Justification

The mission of the AH-1W attack helicopter is to provide rotary wing close air support, anti-armor, armed escort, armed/visual reconnaissance, survivability enhancements, and fire support coordination capabilities under day/night and adverse weather conditions. The mission of the UH-1N utility helicopter is to provide command and control and combat assault support under day/night and adverse weather conditions and special operations support; supporting arms coordination and aeromedical evacuation. Major modifications for both aircraft include 37 AH-1Ws converted to AH-1Zs, build 152 new AH-1Zs, remanufacture ten (10) H-1N helicopters and build 150 new UH-1Y models. AH-1Z and UH-1Y models include a 4-bladed, composite rotor system with semi-automatic bladefold, performance-matched transmissions, T700 Engine Digital Electronic Control Units, 4-bladed tail rotors and drive systems, more effective stabilizers, upgraded landing gear, tail pylon structural modifications, and common, fully integrated cockpits and avionics systems. These upgrades will add 10,000 flight hours to AH-1Z/UH-1Y airframes. The fully integrated cockpits reduce operator workload and improve situational awareness, thus increasing safety and reducing the rate of aircraft attrition. They will provide considerable growth potential for future weapon systems and avionics, which will significantly increase mission effectiveness and survivability. The cockpits will also include integration of onboard mission planning, communications, digital fire control, self-navigation, night navigation/targeting, air-to-ground missile and air-launched intercept missile weapon systems management in nearly identical crew stations, which significantly reduces training requirements. These upgrades maximize commonality between the two aircraft and provide needed improvements in crew and passenger survivability, payload, power available, endurance, range, airspeed, maneuverability and supportability. Follow-on improvements to sensors and weapons integration, avionics, and air vehicle components will address deficiencies, obsolescence, reliability, supportability and cost growth issues. Improvements will include all associated System Configuration Set (SCS) updates as well as integration and testing related to the aircraft platforms.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Cuff and Yoke Redesign	1.379	0.000	0.000
Articles:	0		
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 2279: *4BW/4BN Upgrade*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Cuff and Yoke Redesign/Step 3 final development was curtailed. The program updated the Business Case Analysis and determined the business case no longer justified continued redesign because of increased development cost and increased projected component life of the existing cuff and yoke design.			
Title: System Configuration Set Development	38.957	17.422	0.000
Articles:	0	0	
FY 2012 Accomplishments: SCS 6.0 - complete developmental flight testing and transition to operational flight testing SCS 7.0 - continue hardware and software development efforts and begin flight testing phase SCS 8.0 - complete preliminary design review (PDR) including Technical Refresh of Mission Computer (TRMC). Continue hardware and software development efforts			
FY 2013 Plans: SCS 6.0 - complete operational flight testing SCS 7.0 - continue hardware and software development efforts and continue developmental flight testing phase SCS 8.0 - complete critical design review (CDR) of TRMC. Continue hardware and software development efforts.			
Title: Weapons and Sensors Testing and Integration	8.837	2.471	0.000
Articles:	0	0	
FY 2012 Accomplishments: Development, integration, and testing effort for Advanced Precision Kill Weapon System (APKWS) on the AH-1Z. Target Sight System (TSS) turret test and evaluation activities for hardware and infrared improvement efforts.			
FY 2013 Plans: Continue Target Sight System (TSS) turret test and evaluation activities for hardware and infrared improvement efforts. Aircraft stores development, integration, and testing effort including APKWS, the M299A1 launcher, and Air-Launched Intercept Missile on the AH-1Z.			
Title: Air Vehicle and Avionics Development	16.444	11.212	0.000
Articles:	0	0	
FY 2012 Accomplishments: Continue Tail Rotor Blade (TRB) Redesign. Main Rotor Gear Box (MRGB) "run dry" improvement. Initiate component fatigue testing of hardware components shown to have the highest return on investment for sustainment total ownership cost and cost per			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 2279: *4BW/4BN Upgrade*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
flight hour management. Tech Refresh Mission Computer (TRMC) hardware redesign was commenced with a preliminary design review (PDR) completed in 2Q12. ***FY 2013 Plans:*** Continue TRB redesign efforts. Continue MRGB "run dry" and component improvement; focus on new sump, coating and filter components. Conduct avionics development & testing on Digital Map/Video Data Link, air vehicle development box, cargo door redesign, Crash Survivable Flight Incident Recorder, design of aircrew restraint system, and Full Motion Video to enhance digitization. Mission computer components obsolescence and regression testing. Continue TRMC hardware redesign with a critical design review (CDR) completed in 4Q13.			
Accomplishments/Planned Programs Subtotals	65.617	31.105	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/017800: *UH-1Y/AH-1Z APN1*	739.971	820.391	820.962		820.962	817.518	846.874	925.548	962.579	933.874	10,881.402

Remarks

D. Acquisition Strategy

The USMC H-1 Upgrades is an ACAT 1C program which has completed Engineering and Manufacturing Development and is in Full Rate Production of UH-1Y and AH-1Z helicopters. Ongoing RDT&E projects are focused on improving reliability and maintainability of the current design, increasing warfighter capability, and enhancing safety and situational awareness characteristics of the aircraft. The prime production contract is a sole source to Bell Helicopter Textron, Inc.

E. Performance Metrics

Cuff and Yoke Redesign addresses fatigue life projections pursuant to Life Cycle Cost avoidance. Overall redesign effort strives to achieve a minimum 1500 hour fatigue life for cuff and yoke components and restores static strength to restore high-altitude performance to the UH-1Y.

Main Rotor Gear Box (MRGB) loss of lubrication prototype development and testing is an effort to meet the survivability requirement of 30-minutes of operation following a total loss of lubrication. The redesign, development, testing, qualification, and deployment of the MRGB improvements will allow the UH-1Y and AH-1Z to reduce their vulnerable area and greatly improve upon the current 17-minute limitation. This effort will also increase the survival rate of the aircrew and aircraft through improved resistance to ballistic threats.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 2279: *4BW/4BN Upgrade*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development2	SS/CPFF	BHTI:Amarillo, TX	12.724	2.813	May 2012	0.000		0.000		-		0.000	0.000	15.537	15.537
Systems Engineering	WR	NAWCAD:Pax River, MD	77.674	3.237	Nov 2011	1.483	Nov 2012	0.000		-		0.000	0.000	82.394	
Prior year Prod Dev Cost no longer funded in the FYDP	Various	Various:Various	1,193.750	1.973	May 2012	0.000		0.000		-		0.000	0.000	1,195.723	
		Subtotal	1,284.148	8.023		1.483		0.000		0.000		0.000	0.000	1,293.654	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	SS/CPFF	BHTI:Amarillo, TX	0.000	34.303	Mar 2012	3.408	Dec 2012	0.000		-		0.000	0.000	37.711	37.711
Software Development	WR	NAWCWD:China Lake, CA	19.065	10.568	Dec 2011	11.945	Dec 2012	0.000		-		0.000	0.000	41.578	
Prior year Support costs no longer funded in FYDP	Various	Various:Various	67.627	0.000		0.000		0.000		-		0.000	0.000	67.627	
		Subtotal	86.692	44.871		15.353		0.000		0.000		0.000	0.000	146.916	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test and Evaluation	WR	NAWCAD:Pax River, MD	52.550	7.969	Nov 2011	10.571	Nov 2012	0.000		-		0.000	0.000	71.090	
Operational Test and Evaluation1	WR	COMOPTEVFOR:Norfolk, VA	27.898	2.506	Nov 2011	2.333	Nov 2012	0.000		-		0.000	0.000	32.737	
Prior Year T&E cost no longer funded in FYDP	Various	Various:Various	17.312	0.000		0.000		0.000		-		0.000	0.000	17.312	
		Subtotal	97.760	10.475		12.904		0.000		0.000		0.000	0.000	121.139	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 2279: *4BW/4BN Upgrade*

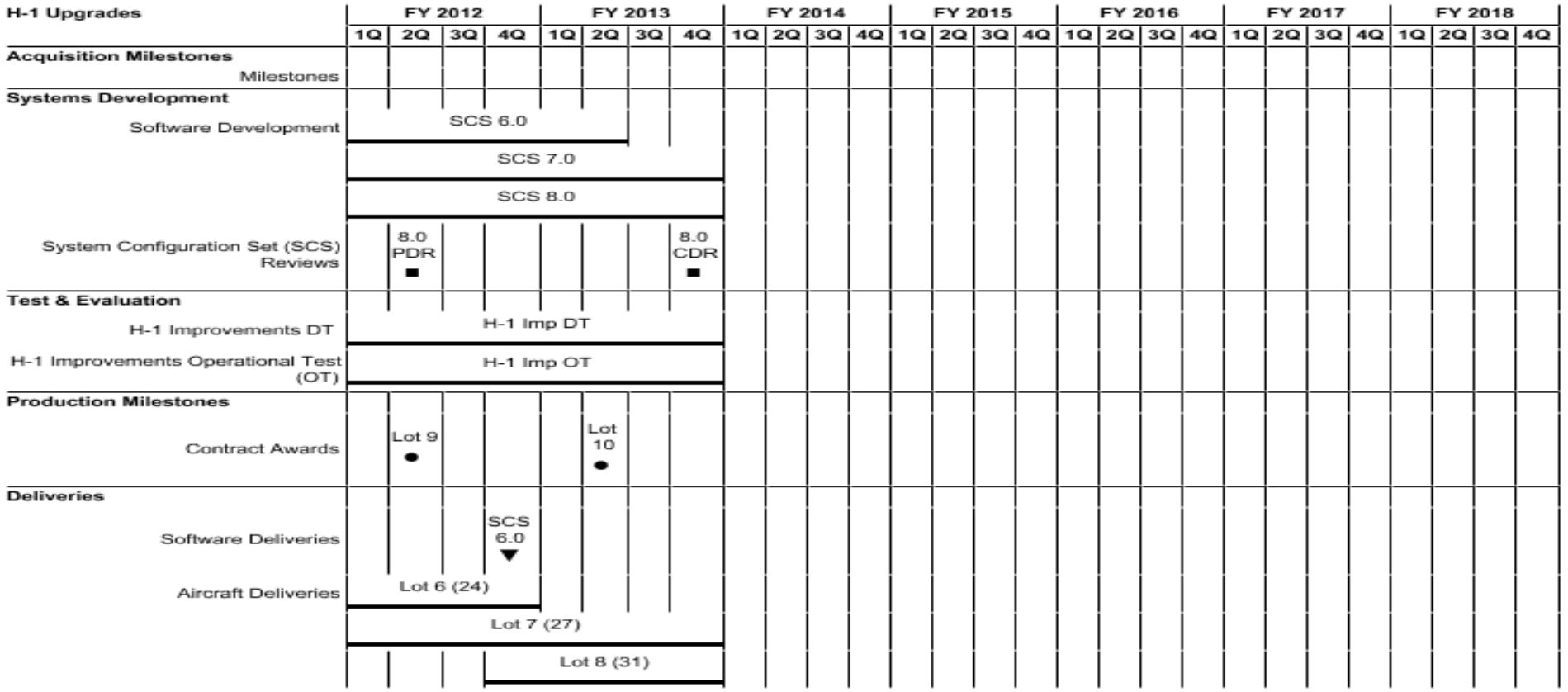
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Supt	C/FFP	Various:Various	8.782	0.490	Dec 2011	0.490	Oct 2012	0.000		-		0.000	0.000	9.762	9.762
Program Management Supt	C/CPFF	Various:Various	11.515	1.265	Dec 2011	0.465	Dec 2012	0.000		-		0.000	0.000	13.245	13.245
Travel	WR	Various:Various	4.511	0.493	Oct 2011	0.410	Oct 2012	0.000		-		0.000	0.000	5.414	
Prior year Mgmt costs no longer funded in FYDP	Various	Various:Various	0.077	0.000		0.000		0.000		-		0.000	0.000	0.077	
		Subtotal	24.885	2.248		1.365		0.000		0.000		0.000	0.000	28.498	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,493.485	65.617		31.105		0.000		0.000		0.000	0.000	1,590.207	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 2279: *4BW/4BN Upgrade*



2014OSD - 0604245N - 2279

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 2279: *4BW/4BN Upgrade*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
H-1 Upgrades				
Systems Development: Software Development: SCS 6.0 Software Development	1	2012	2	2013
Systems Development: Software Development: SCS 7.0 Software Development	1	2012	2	2014
Systems Development: Software Development: SCS 8.0 Software Development	1	2012	1	2015
Systems Development: System Configuration Set (SCS) Reviews: SCS 8.0 PDR	2	2012	2	2012
Systems Development: System Configuration Set (SCS) Reviews: SCS 8.0 CDR	4	2013	4	2013
Test & Evaluation: H-1 Improvements DT: H-1 Improvements DT	1	2012	1	2015
Test & Evaluation: H-1 Improvements Operational Test (OT): H-1 Improvements Operational Test (OT)	1	2012	4	2015
Production Milestones: Contract Awards: Lot 9	2	2012	2	2012
Production Milestones: Contract Awards: Lot 10	2	2013	2	2013
Deliveries: Software Deliveries: SCS 6.0 Software Deliveries	4	2012	4	2012
Deliveries: Software Deliveries: SCS 7.0 Software Deliveries	4	2014	4	2014
Deliveries: Software Deliveries: SCS 8.0 Software Deliveries	3	2015	3	2015
Deliveries: Aircraft Deliveries: Lot 6 FRP Y/LRIP Z	1	2012	4	2012
Deliveries: Aircraft Deliveries: Lot 7 FRP Y/LRIP Z	1	2012	4	2013
Deliveries: Aircraft Deliveries: Lot 8 FRP Y + Z	4	2012	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 3359: *H-1 Improvements*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3359: *H-1 Improvements*	0.000	0.000	0.000	47.123	-	47.123	46.789	47.444	48.451	49.259	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Efforts previously budgeted in Project 2279 are now budgeted in Project 3359 for FY 2014 through FY 2018.

A. Mission Description and Budget Item Justification

The objective of H-1 Improvements is to provide follow-on Research, Development, Test and Evaluation efforts in support of all H-1 aircraft.

H-1 Improvements include System Configuration Set (SCS) development and testing. SCS involves the integration of the entire set of airborne electronics connected via the 1553 data bus and includes much of the electronic hardware and software described in air vehicle, avionics, and sensors and weapons below. This includes correction of hardware and software deficiencies as identified through test and/or due to obsolescence issues.

Air vehicle improvements include analysis of structural data to formulate Damage Limits and Tolerances for structural components to reduce life cycle costs and maintenance workload; and redesign of structural components to minimize excessive and premature wear, increase reliability, and improve existing design deficiencies. Additional air vehicle upgrades include redesign of the aircraft power-generating components (generator, inverters, wiring) to support power requirements for existing and future systems (avionics, sensors and weapons) and to reduce aircraft weight.

Avionics improvements target situational awareness and pilot and aircrew safety by integrating Blue Force Tracking. Other improvements include degraded visual environment capability and joint precision landing system incorporation. Critical safety improvements include crash survivable flight incident recorder, collision avoidance, improved Embedded Global Positioning System/inertial navigation system for required navigation performance/area navigation, mission computer, digital operations & transfer systems, targeting sensor systems, digital interoperability networking, integration with aviation combat elements and Marine Air Ground Task Force using digitally aided close air support and streaming video. In addition, the goal is to reduce total ownership cost for H-1 aircraft and related support systems by improving reliability and maintainability in critical flight and avionics systems as well as by implementing fact-of-life obsolescence solutions by incorporating technology and information protection in critical avionics and sensor systems.

Sensors and weapons improvements include upgrades to Target Sight System and BRITE Star for hardware and infrared improvement efforts. Additionally, aircraft stores development, integration, and testing efforts including Advanced Precision Kill Weapon System, the M299A1 launcher, and Air-launched Intercept Missile on the AH-1Z are included.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 3359: *H-1 Improvements*

These improvements will provide considerable growth potential for future weapon systems, air vehicle improvements, software improvements, and avionics upgrades, which will significantly increase mission effectiveness & survivability, while potentially reducing life cycle costs. The cockpits will also include integration of onboard mission planning, communications, digital fire control, self-navigation, night navigation/targeting, precision guided munitions, and air-launched intercept missile weapon systems management in nearly identical crew stations, which significantly reduce training requirements. These upgrades maximize commonality between all H-1 Type/Model/Series aircraft and provide needed improvements in crew and passenger reliability, survivability, payload, power available, endurance, range, airspeed, maneuverability and supportability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: System Configuration Set Development ***Articles:*** ***FY 2014 Plans:*** SCS 8.0- continue requirements definition and completion of design/development process. Correction of hardware and software correction of deficiencies as identified through test and/or due to obsolescence issues.	0.000	0.000	22.295 0
Title: Weapons and Sensors Testing and Integration ***Articles:*** ***FY 2014 Plans:*** Continue Target Sight System turret test and evaluation for hardware and infrared improvement efforts; initiate aircraft stores development, integration, and testing efforts including Advanced Precision Kill Weapon System, the M299A1 launcher, and Air-Launched Intercept Missiles on the AH-1Z.	0.000	0.000	6.787 0
Title: Air Vehicle Development and Testing ***Articles:*** ***FY 2014 Plans:*** Initiate redesign of structural components including UH-1Y floor boards attach beams/belly access panels, the elevator, the landing gear skid tubes, UH-1Y cargo doors, and the Improved Defensive Armament System; Environmental Control System/ Thermal Redesign to support cooling of Tech Refresh Mission Computer (TRMC)/Mission Computer (MC); redesign of the aircraft power generating components (generator, inverters, wiring) to support power requirements for existing and future system (avionics, sensors and weapons) and to reduce aircraft weight; and redesign of the environmental control system for cooling of the TRMC/MC, and redesign of the drive system components to increase reliability and reduce high cost and/or failure deficiencies.	0.000	0.000	15.356 0
Title: Avionics Development and Testing ***Articles:*** ***FY 2014 Plans:*** Continue avionics development & testing on Digital Map and data storage capability, avionics components obsolescence and regression testing begun in H2279; initiate development efforts on Terrain Awareness Warning System, which determines whether	0.000	0.000	2.685 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 3359: *H-1 Improvements*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
there is high risk of controlled flight into terrain in support of the Ground Proximity Warning System. Continue Full Motion Video design/development and digital interoperability efforts.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	47.123

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Both UH-1Y and AH-1Z are currently in the follow on test and evaluation period. Planning and testing has begun to evaluate enhancements such as incorporating improvements to address critical reliability deficiencies, avionics upgrades to improve existing capability including sending/receiving data in battlefield conditions, additional weapons and sensor capabilities, and Engineering Change Proposals as they are funded and approved. Test and Evaluation Master Plan revisions will be developed in support of testing for future enhancements. Future engineering changes will be funded to correct deficiencies as identified by test and fleet usage. Additional upgrades to the aircraft will be completed incrementally as requirements are defined and funded.

E. Performance Metrics

System Configuration Set (SCS) 7.0 software delivery 2Q FY 2014. SCS 8.0 software delivery 2Q FY 2015. SCS 9.0 software delivery 2Q FY 2017. Successfully complete Developmental Test and Operational Test for H-1 Improvements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 3359: *H-1 Improvements*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPFF	BHTI:Amarillo, TX	0.000	0.000		0.000		8.866	Jan 2014	-		8.866	8.900	17.766	17.766
Systems Engineering	WR	NAWCAD:Patuxent River, MD	0.000	0.000		0.000		0.951	Nov 2013	-		0.951	7.693	8.644	
		Subtotal	0.000	0.000		0.000		9.817		0.000		9.817	16.593	26.410	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	SS/CPFF	BHTI:Amarillo, TX	0.000	0.000		0.000		11.475	Feb 2014	-		11.475	40.269	51.744	51.744
Software Development	WR	NAWCWD:China Lake, CA	0.000	0.000		0.000		11.885	Dec 2013	-		11.885	60.270	72.155	
		Subtotal	0.000	0.000		0.000		23.360		0.000		23.360	100.539	123.899	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test and Evaluation	WR	COMOPTEVFOR:Norfolk, VA	0.000	0.000		0.000		2.163	Dec 2013	-		2.163	15.703	17.866	
Development Test and Evaluation	WR	NAWCAD:Patuxent River, MD	0.000	0.000		0.000		10.585	Nov 2013	-		10.585	53.811	64.396	
		Subtotal	0.000	0.000		0.000		12.748		0.000		12.748	69.514	82.262	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	Various:Various	0.000	0.000		0.000		0.318	Jan 2014	-		0.318	1.271	1.589	1.589

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 3359: *H-1 Improvements*

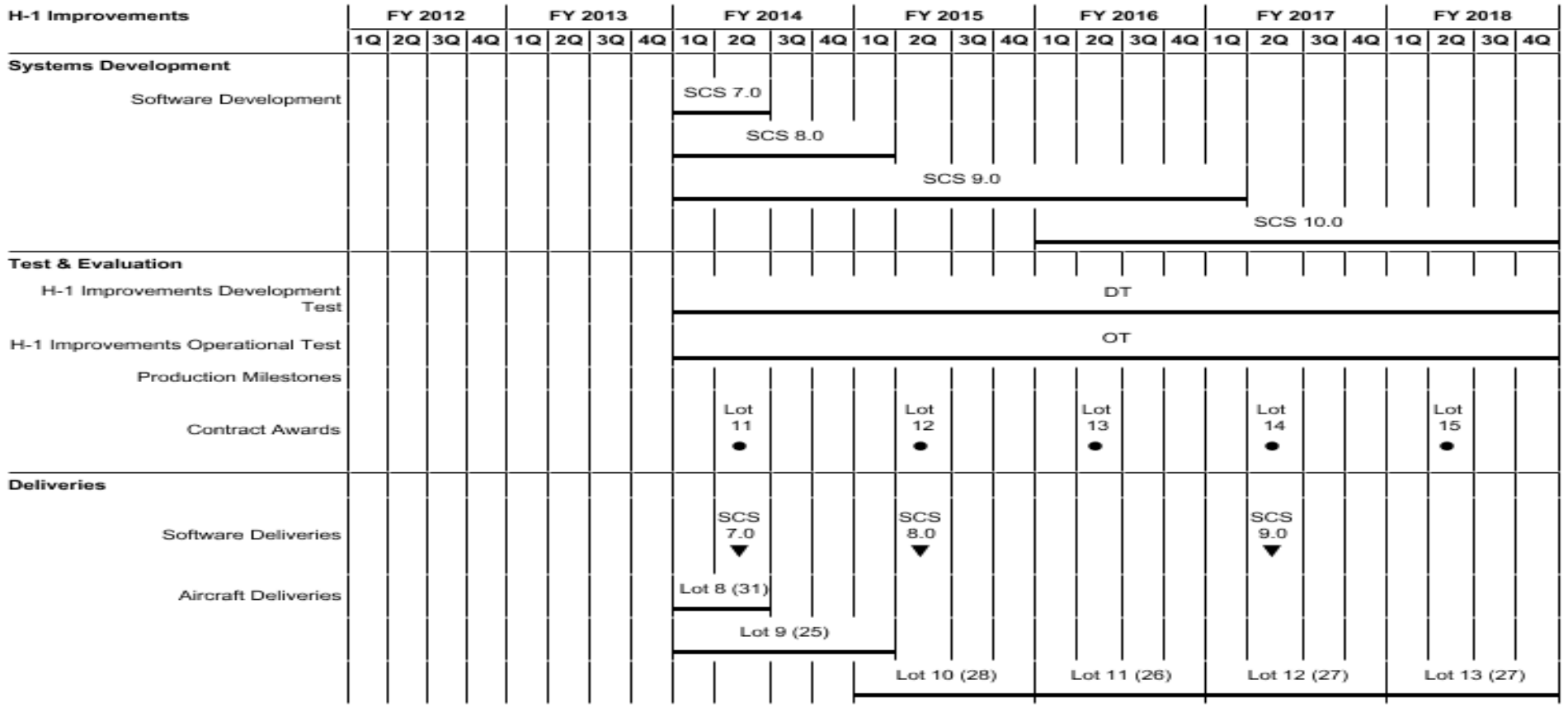
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	Various:Various	0.000	0.000		0.000		0.671	Dec 2013	-		0.671	2.685	3.356	3.356
Travel	WR	Various:Various	0.000	0.000		0.000		0.209	Aug 2014	-		0.209	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		1.198		0.000		1.198			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		47.123		0.000		47.123			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 3359: *H-1 Improvements*



2014OSD - 0604245N - 3359

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604245N: *H-1 Upgrades*	PROJECT 3359: *H-1 Improvements*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
H-1 Improvements				
Systems Development: Software Development: SCS 7.0 Software Development	1	2014	2	2014
Systems Development: Software Development: SCS 8.0 Software Development	1	2014	1	2015
Systems Development: Software Development: SCS 9.0 Software Development	1	2014	1	2017
Systems Development: Software Development: SCS 10.0 Software Development	1	2016	4	2018
Test & Evaluation: H-1 Improvements Development Test: H-1 Improvements Development Test	1	2014	4	2018
Test & Evaluation: H-1 Improvements Operational Test: H-1 Improvements Operational Test	1	2014	4	2018
Test & Evaluation: Contract Awards: Lot 11	2	2014	2	2014
Test & Evaluation: Contract Awards: Lot 12	2	2015	2	2015
Test & Evaluation: Contract Awards: Lot 13	2	2016	2	2016
Test & Evaluation: Contract Awards: Lot 14	2	2017	2	2017
Test & Evaluation: Contract Awards: Lot 15	2	2018	2	2018
Deliveries: Software Deliveries: SCS 7.0	2	2014	2	2014
Deliveries: Software Deliveries: SCS 8.0	2	2015	2	2015
Deliveries: Software Deliveries: SCS 9.0	2	2017	2	2017
Deliveries: Aircraft Deliveries: Lot 8 FRP Y + Z	1	2014	2	2014
Deliveries: Aircraft Deliveries: Lot 9 FRP Y + Z	1	2014	1	2015
Deliveries: Aircraft Deliveries: Lot 10 FRP Y + Z	1	2015	4	2015
Deliveries: Aircraft Deliveries: Lot 11 FRP Y + Z	1	2016	4	2016
Deliveries: Aircraft Deliveries: Lot 12 FRP Y + Z	1	2017	4	2017
Deliveries: Aircraft Deliveries: Lot 13 FRP Y + Z	1	2018	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	321.669	49.353	34.299	30.208	-	30.208	27.044	21.406	18.418	18.706	Continuing	Continuing
0480: *ASW Sensors & Proc*	275.966	25.087	19.453	19.624	-	19.624	17.531	13.796	14.097	14.313	Continuing	Continuing
3224: *High Altitude ASW*	45.703	24.266	14.846	10.584	-	10.584	9.513	7.610	4.321	4.393	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Includes RDT&E funds for engineering development and operational test and evaluation of acoustic search sensors/systems and complementary equipment for Anti Submarine Warfare (ASW) aircraft.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	48.838	34.299	30.416	-	30.416
Current President's Budget	49.353	34.299	30.208	-	30.208
Total Adjustments	0.515	0.000	-0.208	-	-0.208
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.927	0.000			
• SBIR/STTR Transfer	-1.412	0.000			
• Program Adjustments	0.000	0.000	-0.024	-	-0.024
• Rate/Misc Adjustments	0.000	0.000	-0.184	-	-0.184

Change Summary Explanation

Technical: Not applicable.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604261N: *Acoustic Search Sensors*

Schedule: 3224. A 15 Mar 12 Acquisition Decision Memorandum from PEO(A) Milestone Decision Authority approved the transition from a planned Acquisition Category Program to a series of Engineering Change Proposal modifications to the AN/SSQ-53, AN/SSQ-62 and AN/SSQ-101 sonobuoys.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 0480: *ASW Sensors & Proc*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0480: *ASW Sensors & Proc*	275.966	25.087	19.453	19.624	-	19.624	17.531	13.796	14.097	14.313	Continuing	Continuing
Quantity of RDT&E Articles	0	500	50	75		75	200	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Anti-Submarine Warfare (ASW) Sensors and Processing project provides the tools and methods necessary to maintain naval superiority by preventing threat submarines from disrupting the U.S. Navy's ability to control the sea lines of communication and completing their hostile missions. This project encompasses the Engineering & Manufacturing Development phase and the follow on increments of sensor systems to improve the mission effectiveness of airborne ASW platforms in cueing, searching, localizing, tracking, and attacking subsurface targets. Smaller and quieter threat submarines drive the requirement for continued advancement in ASW sensor capabilities for both blue water and littoral environments. The littoral regions of the world create an additional ASW challenge to overcome the increase in background clutter caused by the shallow water depth, high volume of shipping, and commercial radio frequency interference. Project 0480 provides funding to the multi-static active ASW family of systems for the engineering development of solutions that detect, classify, and track threat submarines. Multi-static Active Coherent (MAC) and Advanced Processing Builds (APB) are efforts funded during the period identified. The MAC program, which started in FY08, encompasses the development of an active coherent (electronic) source sonobuoy, modifications to the existing Air Deployable Active Receiver sonobuoy, development, integration, and test of aircraft avionics software and MAC system. It also provides upgrades to the Multi-static mission planning tool, the Tactical Operational Readiness Trainer and the Tactical Ground Replay System. MAC provides a large area search capability in all water environments and will eliminate current impulsive source safety, training, and Rules of Engagement restrictions. Project 0480 also provides funding for the APB program which provides software enhancements for signal processing improvements, clutter reduction, automation, improved displays and controls, as well as improved communication links for reduced operator workload resulting in increased target detection and classification capabilities and interoperability. APB also includes an Air ASW Engineering Measurement Program that collects ASW system data and identifies areas where beneficial improvements can be made and provides common software and hardware solutions across all Air ASW platforms. The 825 sonobuoy test articles in FY12/15 will support software and hardware integration flight tests and Technical Evaluation/Operational Evaluation for the MAC program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Complete APB System Qualification Test /Fleet Release	0.514	2.888	8.485
Articles:	0	0	0
FY 2012 Accomplishments: Complete APB(2) Tech Eval and get approval for software release in September 2012. Continue software development/ Integration for APB(3).			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 0480: *ASW Sensors & Proc*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Release APB(2) software to Fleet. Continue software development/Integration for APB(3). ***FY 2014 Plans:*** Conduct APB(3) Software Qualification Test (SQT) and prepare APB(3) for software release.			
Title: Multi-static Active Coherent (MAC)	24.573	16.565	11.139
Articles:	500	50	75
FY 2012 Accomplishments: Conduct Milestone C and Low Rate Initial Production decision briefs with Milestone Decision Authority. Conduct Operational Test flights in 3rd quarter FY-2012. ***FY 2013 Plans:*** Release Multi-static Active Coherent (MAC) software to Fleet in 1st quarter. Conduct decision brief for Full Rate Production on SSQ-125 in 1st quarter. Initiate Engineering Change Proposal (ECP) to the SSQ-125 to increase source level. Integrate next version of software to support commencement of Follow-on Test and Evaluation (FOT&E) in 4th quarter FY-2013. ***FY 2014 Plans:*** Continue ECP effort to increase source level of SSQ-125. Complete FOT&E in 2nd quarter and release software to fleet in 3rd quarter.			
Accomplishments/Planned Programs Subtotals	25.087	19.453	19.624

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/4048: *Sonobuoys - All Types*	24.431	17.034	47.759		47.759	47.411	51.596	52.975	45.450	Continuing	Continuing

Remarks

D. Acquisition Strategy

The development and integration of MAC using coherent source technology into the P-3C and P-8A Aircraft. Sole source contracts have been awarded for Sensor Development (ERAPSCO) and for Displays and Control and Integration on P-3C aircraft (Lockheed Martin, Manassas) and P-8A aircraft.

E. Performance Metrics

Continued development/test of a MAC coherent source and related software that will satisfy the large area search requirement in the harsh, shallow water littorals as stated in the Acquisition Program Baseline agreement.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 0480: *ASW Sensors & Proc*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Development	Various	VARIOUS:VARIOUS	18.505	1.400	Oct 2011	2.288	Dec 2012	1.191	Dec 2013	-		1.191	Continuing	Continuing	Continuing
Primary Hdw Development	SS/CPIF	ERAPSCO:FT. WAYNE IN	3.350	3.350	Oct 2011	3.658	Dec 2012	3.600	Dec 2013	-		3.600	Continuing	Continuing	Continuing
		Subtotal	21.855	4.750		5.946		4.791		0.000		4.791			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	WR	NAWCAD:PATUXENT RIVER, MD	19.204	1.000	Oct 2011	1.000	Nov 2012	1.000	Nov 2013	-		1.000	Continuing	Continuing	Continuing
Software Development	SS/CPIF	LOCKHEED MARTIN:MANASSAS VA	3.000	3.000	Oct 2011	1.000	Nov 2012	1.000	Nov 2013	-		1.000	Continuing	Continuing	Continuing
Software Development	Various	VARIOUS:VARIOUS	7.802	0.529	Oct 2011	0.457	Nov 2012	0.500	Nov 2013	-		0.500	Continuing	Continuing	Continuing
Studies & Analysis	WR	NAWCAD:PATUXENT RIVER, MD	12.340	1.000	Oct 2011	0.562	Nov 2012	0.700	Nov 2013	-		0.700	Continuing	Continuing	Continuing
Technical Data	WR	NAWCAD:PATUXENT RIVER, MD	15.359	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	57.705	5.529		3.019		3.200		0.000		3.200			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval	WR	NAWCAD:PATUXENT RIVER, MD	17.700	2.000	Nov 2011	1.000	Nov 2012	1.000	Nov 2013	-		1.000	Continuing	Continuing	Continuing
		Subtotal	17.700	2.000		1.000		1.000		0.000		1.000			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 0480: *ASW Sensors & Proc*

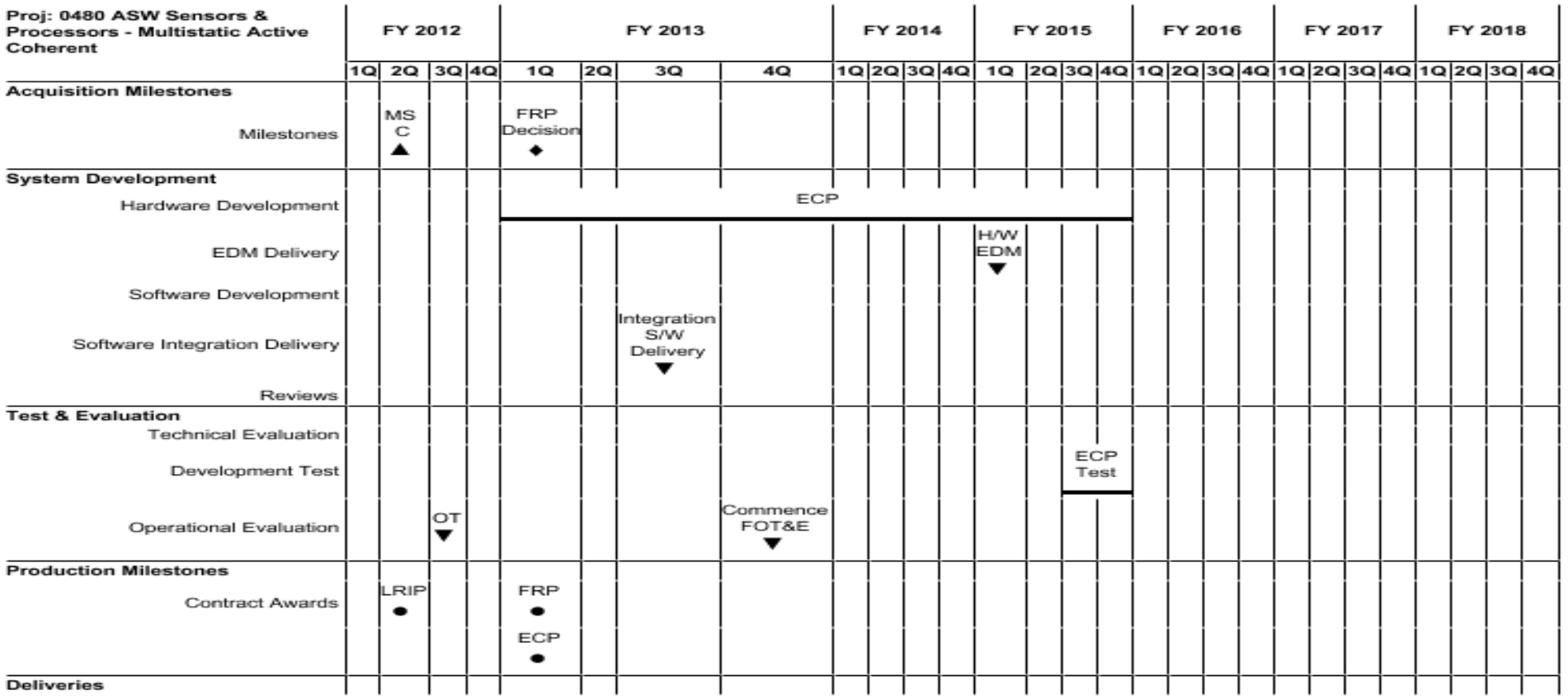
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Eng Spt (APB)	Various	VARIOUS:VARIOUS	30.845	3.132	Nov 2011	2.132	Nov 2012	2.500	Nov 2013	-		2.500	Continuing	Continuing	Continuing
Contractor Eng Spt (APB)	C/CPFF	NAVMAR APPLIED SCIENCES CORP:WARMINSTER, PA	0.000	1.349	Nov 2011	1.488	Nov 2012	1.500	Nov 2013	-		1.500	Continuing	Continuing	Continuing
Government Eng Spt	WR	NAWCAD:PATUXENT RIVER, MD	89.050	3.661	Oct 2011	4.221	Nov 2012	5.287	Nov 2013	-		5.287	Continuing	Continuing	Continuing
Eng & Tech Spt Srvc (NON-FFRDC)	Various	VARIOUS:VARIOUS	48.453	4.600	Nov 2011	1.397	Nov 2012	1.121	Nov 2013	-		1.121	Continuing	Continuing	Continuing
Mgt & Prof SptT Srvc (FFRDC)	Various	VARIOUS:VARIOUS	9.490	0.066	Nov 2011	0.250	Nov 2012	0.225	Nov 2013	-		0.225	Continuing	Continuing	Continuing
Prior Years Mgmt Svcs no longer funded in the FYDP	Various	VARIOUS:VARIOUS	0.868	0.000		0.000		0.000		-		0.000	0.000	0.868	
		Subtotal	178.706	12.808		9.488		10.633		0.000		10.633			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	275.966	25.087		19.453		19.624		0.000		19.624			

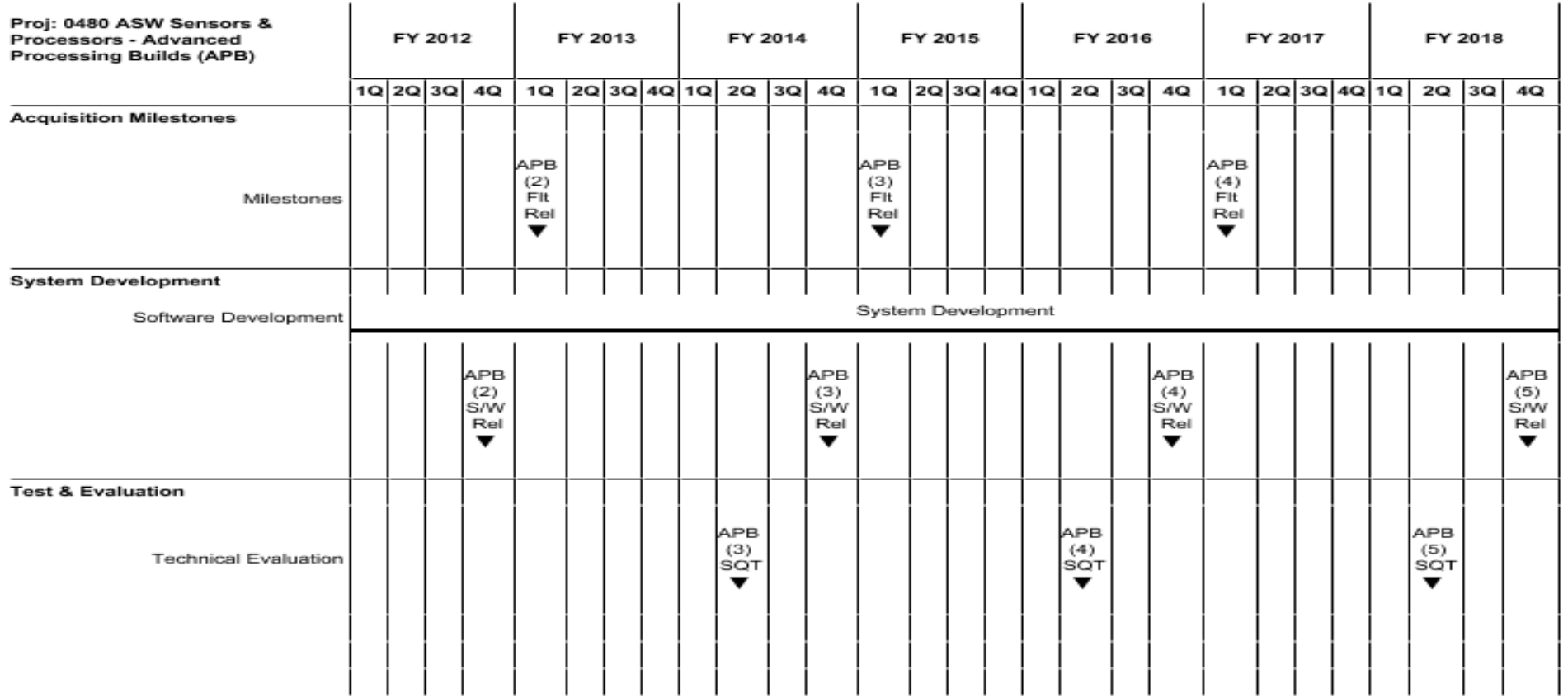
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 0480: *ASW Sensors & Proc*



2014PB - 0604261N - 0480

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 0480: *ASW Sensors & Proc*



2014PB - 0604261N - 0480

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604261N: *Acoustic Search Sensors*	**PROJECT** 0480: *ASW Sensors & Proc*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj: 0480 ASW Sensors & Processors - Multistatic Active Coherent				
Acquisition Milestones: Milestones: Milestone C	2	2012	2	2012
Acquisition Milestones: Milestones: Full Rate Production (FRP) Decision	1	2013	1	2013
System Development: Hardware Development: Engineering Change Proposal	1	2013	4	2015
System Development: EDM Delivery: Eng Dev Model (H/W EDM) 2	1	2015	1	2015
System Development: Software Integration Delivery: Integration Software Delivery	3	2013	3	2013
Test & Evaluation: Development Test: Engineering Change Proposal Test	3	2015	4	2015
Test & Evaluation: Operational Evaluation: OT	3	2012	3	2012
Test & Evaluation: Operational Evaluation: Commence FOT&E	4	2013	4	2013
Production Milestones: Contract Awards: Low Rate Initial Production (LRIP)	2	2012	2	2012
Production Milestones: Contract Awards: Full Rate Production (FRP)	1	2013	1	2013
Production Milestones: Contract Awards: Engineering Change Proposal	1	2013	1	2013
Proj: 0480 ASW Sensors & Processors - Advanced Processing Builds (APB)				
Acquisition Milestones: Milestones: APB (2) Fleet Release	1	2013	1	2013
Acquisition Milestones: Milestones: APB (3) Fleet Release	1	2015	1	2015
Acquisition Milestones: Milestones: APB (4) Fleet Release	1	2017	1	2017
System Development: Software Development: System Development	1	2012	4	2018
System Development: Software Development: APB (2) Software Release	4	2012	4	2012
System Development: Software Development: APB (3) Software Release	4	2014	4	2014
System Development: Software Development: APB (4) Software Release	4	2016	4	2016
System Development: Software Development: APB (5) Software Release	4	2018	4	2018
Test & Evaluation: Technical Evaluation: APB (3) SQT	2	2014	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 0480: *ASW Sensors & Proc*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test & Evaluation: Technical Evaluation: APB (4) SQT	2	2016	2	2016
Test & Evaluation: Technical Evaluation: APB (5) SQT	2	2018	2	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 3224: *High Altitude ASW*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3224: *High Altitude ASW*	45.703	24.266	14.846	10.584	-	10.584	9.513	7.610	4.321	4.393	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The High Altitude Anti-Submarine Warfare (HAASW) program objective is to ensure Anti-Submarine Warfare (ASW) aircraft operational flexibility and effectiveness thoughout the kill chain at higher than traditional ASW altitudes. FY11-FY16 R&D monies fund the Technology Development (TD), Test & Evaluation and Initial Operational Capability for HAASW integration into the P-8A aircraft. TD includes hardware modifications to existing ASW sonobuoys and software development for the aircraft. Global Positioning System (GPS) integration will provide precise sonobuoy location regardless of aircraft altitude/location to enhance wide area ASW search, localization, track and targeting. FY17-FY18 funds the continued GPS/Digital Telemetry effort to further reduce the kill chain. The digital telemetry will improve sonobuoy communication performance in high Radio Frequency Interference environments, increase Air Deployable Active Receiver channel availability, and provide NATO compatibility. P-8A software will be developed to process GPS and digital telemetry signals and to integrate algorithms that will adjust sonobuoy release/drop points for more accurate sonobuoy placement.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Provide precision delivery of sonobuoys	24.266	14.846	10.584
Articles:	0	0	0
FY 2012 Accomplishments: Sonobuoy Preliminary Design Review is planned for Apr 12. A P-8A Increment 2 Risk Reduction contract will be awarded initiating a P-8A Inc2 (HAASW) Capabilities Analysis and Planning study.			
FY 2013 Plans: Milestone B and Critical Design Review are planned. Boeing Increment 2 Integration contract will be awarded.			
FY 2014 Plans: Full-rate production decision on the qualified HAASW capable SSQ-53, SSQ-62 & SSQ-101. HAASW software and production representative sonobuoy all planned for P-8A Increment 2 Integration testing. Follow on test and evaluation will be initiated.			
Accomplishments/Planned Programs Subtotals	24.266	14.846	10.584

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 3224: *High Altitude ASW*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

A 15 Mar 12 Acquisition Decision Memorandum from PEO(A) Milestone Decision Authority approved the transition from a planned Acquisition Category Program to a series of Engineering Change Proposal modifications to the AN/SSQ-53, AN/SSQ-62 and AN/SSQ-101 sonobuoys. The sonobuoy technology development contract was awarded in Aug 11. A follow-on contract to support the Government managed qualification and certification phase will be awarded in FY13. Systems level Test and Evaluation will be conducted on the P-8A.

E. Performance Metrics

Schedule and cost variances are used to track sonobuoy development. Should Cost methodology has also been employed to manage the development and production costs of the HAASW capable sonobuoys.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 3224: *High Altitude ASW*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Development	Various	VARIOUS:VARIOUS	5.009	0.376	Nov 2011	0.478	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Primary Hdw Development	SS/CPIF	ERAPSCO:FT. WAYNE IN	11.980	11.389	Nov 2011	1.700	Nov 2012	1.800	Nov 2013	-		1.800	3.206	30.075	28.375
		Subtotal	16.989	11.765		2.178		1.800		0.000		1.800			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Documentation	Various	VARIOUS:VARIOUS	0.450	0.500	Nov 2011	0.300	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
A/C Software Integration	C/CPFF	BOEING:SEATTLE WA	12.367	4.000	Nov 2011	5.601	Dec 2012	2.513	Nov 2013	-		2.513	Continuing	Continuing	Continuing
Prior year Support cost no longer funded in the FYDP	Various	VARIOUS:VARIOUS	3.611	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	16.428	4.500		5.901		2.513		0.000		2.513			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval	Various	VARIOUS:VARIOUS	0.450	0.500	Nov 2011	1.500	Nov 2012	3.200	Nov 2013	-		3.200	Continuing	Continuing	Continuing
		Subtotal	0.450	0.500		1.500		3.200		0.000		3.200			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Eng Spt	Various	VARIOUS:VARIOUS	0.484	0.946	Oct 2011	0.746	Nov 2012	0.900	Nov 2013	-		0.900	Continuing	Continuing	Continuing
ENG & TECH SVCS (NON-FFRDC)	Various	VARIOUS:VARIOUS	0.719	2.294	Oct 2011	0.983	Nov 2012	0.000	Nov 2013	-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 3224: *High Altitude ASW*

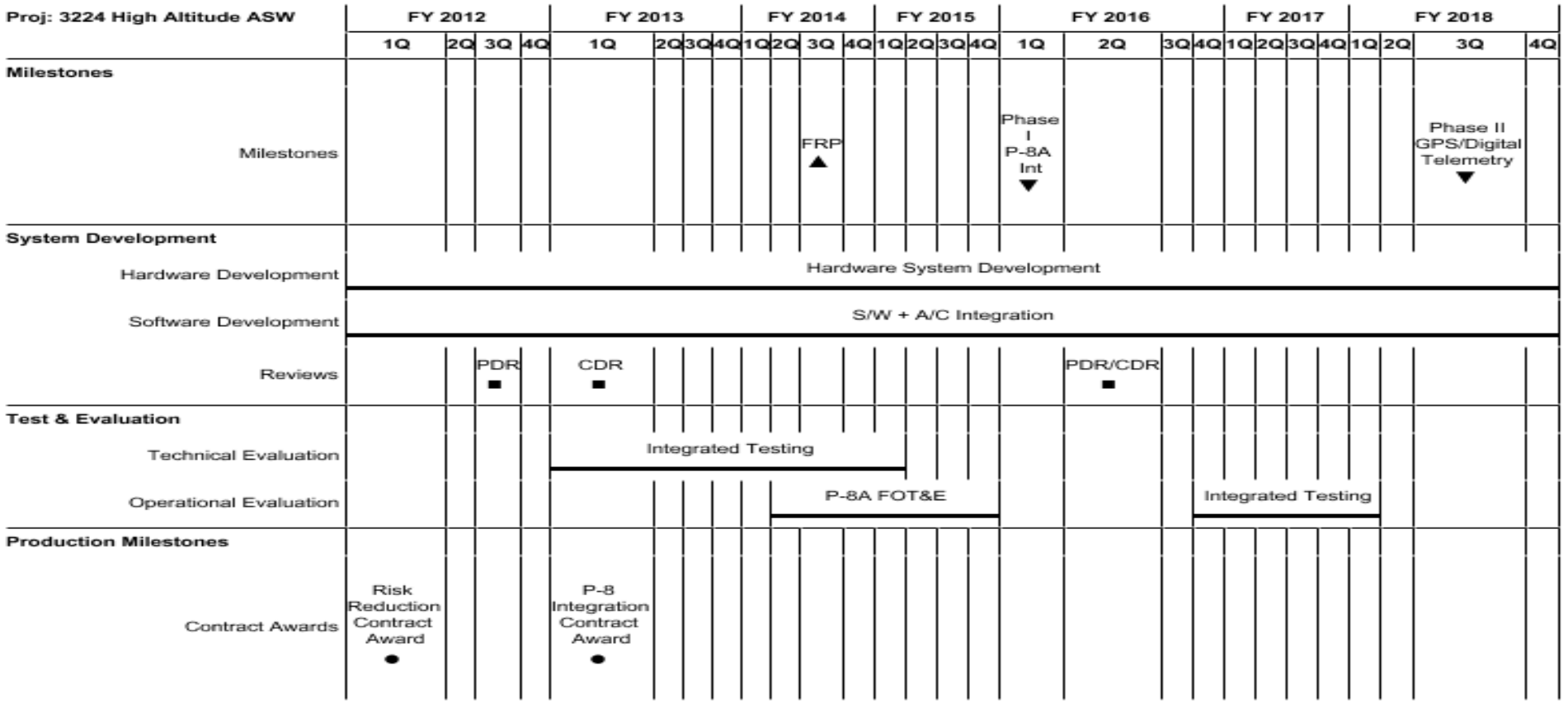
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Eng Spt	WR	NAWCAD:PATUXENT RIVER, MD	10.172	4.217	Oct 2011	3.511	Nov 2012	2.154	Nov 2013	-		2.154	Continuing	Continuing	Continuing
Travel	C/T&M	VARIOUS:VARIOUS	0.461	0.044	Oct 2011	0.027	Nov 2012	0.017	Nov 2013	-		0.017	Continuing	Continuing	Continuing
		Subtotal	11.836	7.501		5.267		3.071		0.000		3.071			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	45.703	24.266		14.846		10.584		0.000		10.584			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 3224: *High Altitude ASW*



2014PB - 0604261N - 3224

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604261N: *Acoustic Search Sensors*	PROJECT 3224: *High Altitude ASW*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj: 3224 High Altitude ASW				
Milestones: Milestones: Full Rate Production	3	2014	3	2014
Milestones: Milestones: Phase I P-8A Integration	1	2016	1	2016
Milestones: Milestones: Phase II GPS/Digital Telemetry	3	2018	3	2018
System Development: Hardware Development: Hardware System Development	1	2012	4	2018
System Development: Software Development: Aircraft Software Development/ Integration	1	2012	4	2018
System Development: Reviews: PDR	3	2012	3	2012
System Development: Reviews: CDR	1	2013	1	2013
System Development: Reviews: PDR/CDR	2	2016	2	2016
Test & Evaluation: Technical Evaluation: Integrated Testing	1	2013	1	2015
Test & Evaluation: Operational Evaluation: P-8A FOT&E	2	2014	4	2015
Test & Evaluation: Operational Evaluation: Integrated Testing	4	2016	1	2018
Production Milestones: Contract Awards: Risk Reduction Contract Award	1	2012	1	2012
Production Milestones: Contract Awards: P-8 Integration Contract Award	1	2013	1	2013

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	8,924.263	71.938	54.412	43.084	-	43.084	69.816	60.659	53.319	53.002	68.500	9,398.993
1425: *V-22*	8,924.263	71.938	54.412	43.084	-	43.084	69.816	60.659	53.319	53.002	68.500	9,398.993
MDAP/MAIS Code(s): 212												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The V-22 Osprey is an Acquisition Category IC Joint Program led by the Department of the Navy for the purpose of developing, testing, evaluating, procuring and fielding a tilt rotor, vertical takeoff and landing aircraft for Joint Service application. The V-22 program is designed to provide an aircraft to meet the amphibious/ vertical assault needs of the Marine Corps, the utility/rescue needs of the Navy, and the special operations needs of the Air Force and the United States Special Operations Command (USSOCOM). The V-22 is replacing the CH-46E and CH53A/D in the Marine Corps with the MV-22; will supplement the H-60 in the Navy with the MV-22; and replace the MH-53J and MH-53M as well as augment the C-130 in the Air Force and USSOCOM with the CV-22. The V-22 is capable of flying over 2100 nautical miles with a single refueling, giving the services the advantage of a Vertical/Short Take-off and Landing aircraft that can rapidly self-deploy to any location in the world. This program is funded under Engineering Manufacturing and Development for correction of deficiencies and includes Block A and Block B upgrades which encompassed engineering and manufacturing development of new end-items prior to the production incorporation decision. Block C suitability and effectiveness development upgrades continue through FY12. Funding in FY11 addressed Capability Development Document interoperability requirements through a spiral upgrade acquisition strategy. These funds were the first spiral providing Key Enabling Department of Defense mandated open systems architecture upgrades for the mission computer hardware and software while simultaneously addressing required interoperability common avionics upgrades and current avionics obsolescence issues. Development efforts include Block C Upgrade, Mission System Upgrade, Mid-Wing Process Unit, ARC 210 Generation 5 Radio, Mission Computer Obsolescence Initiative, Ramp Mounted Weapon System, AAR-47 Hostile Fire Indicator, Time on Wing, and Blue Force Tracker/Netted Weather. FY12-13 funds initiate instrumentation of a test aircraft. Joint and Allied Threat Awareness System testing will continue in FY14 and funding will provide for additional Aircraft Mission Maneuvering Envelope Expansion, Velocity Not to Exceed Expansion, and Time on Wing efforts such as Improved Inlet Solution.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	84.477	54.412	40.279	-	40.279
Current President's Budget	71.938	54.412	43.084	-	43.084
Total Adjustments	-12.539	0.000	2.805	-	2.805
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-9.999	0.000			
• SBIR/STTR Transfer	-2.540	0.000			
• Program Adjustments	0.000	0.000	-0.050	-	-0.050
• Rate/Misc Adjustments	0.000	0.000	2.855	-	2.855

Change Summary Explanation

Technical: Not applicable

Schedule: Instrumented Aircraft Test Delivery moved from 3Q 2014 to 1Q 2015 in accordance with contract.
SSOT in 3rd QTRS of FY2013/FY2015/FY2017 now reflected as OT IIIJ, OT IIIK and OT IIIL.
OT-C1 in 3rd QTR of FY2014 new from PB13.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*	PROJECT 1425: *V-22*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1425: *V-22*	8,924.263	71.938	54.412	43.084	-	43.084	69.816	60.659	53.319	53.002	68.500	9,398.993
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The V-22 Osprey is an Acquisition Category IC Joint Program led by the Department of the Navy for the purpose of developing, testing, evaluating, procuring and fielding a tilt rotor, vertical takeoff and landing aircraft for Joint Service application. The V-22 program is designed to provide an aircraft to meet the amphibious/ vertical assault needs of the Marine Corps, the utility/rescue needs of the Navy, and the special operations needs of the Air Force and the United States Special Operations Command (USSOCOM). The V-22 is replacing the CH-46E and CH53A/D in the Marine Corps with the MV-22; will supplement the H-60 in the Navy with the MV-22; and replace the MH-53J and MH-53M as well as augment the C-130 in the Air Force and USSOCOM with the CV-22. The V-22 is capable of flying over 2100 nautical miles with a single refueling, giving the services the advantage of a Vertical/Short Take-off and Landing aircraft that can rapidly self-deploy to any location in the world. This program is funded under Engineering Manufacturing and Development for correction of deficiencies and includes Block A and Block B upgrades which encompassed engineering and manufacturing development of new end-items prior to the production incorporation decision. Block C suitability and effectiveness development upgrades continue through FY12. Funding in FY11 addressed Capability Development Document interoperability requirements through a spiral upgrade acquisition strategy. These funds were the first spiral providing Key Enabling Department of Defense mandated open systems architecture upgrades for the mission computer hardware and software while simultaneously addressing required interoperability common avionics upgrades and current avionics obsolescence issues. Development efforts include Block C Upgrade, Mission System Upgrade, Mid-Wing Process Unit, ARC 210 Generation 5 Radio, Mission Computer Obsolescence Initiative, Ramp Mounted Weapon System, AAR-47 Hostile Fire Indicator, Time on Wing, and Blue Force Tracker/Netted Weather. FY12-13 funds initiate instrumentation of a test aircraft. Joint and Allied Threat Awareness System testing will continue in FY14 and funding will provide for additional Aircraft Mission Maneuvering Envelope Expansion, Velocity Not to Exceed Expansion, and Time on Wing efforts such as Improved Inlet Solution.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Continued development of V-22	54.401	36.483	24.476
Articles:	0	0	0
FY 2012 Accomplishments: Continued MV-22 development efforts by Bell-Boeing. Rolls-Royce continued to provide engine support and development of MV-22 flight testing. Continued MV-22 software development/sustainment efforts. Continued development in support of MV-22 Block upgrades. Continued engineering, logistics, flight test, flight test support and address correction of deficiencies. Continued contracted development efforts on test aircraft. Initiated funding for instrumentation of test aircraft.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*	PROJECT 1425: *V-22*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue MV-22 development efforts by Bell-Boeing. Rolls-Royce will continue to provide engine support and development of MV-22 flight testing. Continue MV-22 software development efforts. Continue development in support of MV-22 Block upgrades. Continue engineering, logistics, flight test, flight test support and address correction of deficiencies. Continue contracted development efforts on test aircraft. Continue instrumentation of test aircraft. Reduction in funding is the result of cost savings incurred on Instrumented Test Aircraft FPIF contract which awarded in March 2012. ***FY 2014 Plans:*** Continue MV-22 development efforts by Bell-Boeing. Rolls-Royce will continue to provide engine support and development of MV-22 flight testing. Continue MV-22 software development/sustainment efforts. Continue development in support of MV-22 Block upgrades and Time on Wing efforts such as Improved Inlet Solution. Continue engineering, logistics, flight test, flight test support and address correction of deficiencies. Continue contracted development efforts on test aircraft.			
Title: Continued support of V-22 development, test and evaluation program	17.537	17.929	18.608
Articles:	0	0	0
FY 2012 Accomplishments: Continued in-house field activity support of Integrated Test Team, Integrated Product Teams, engineering and logistics. Continued development in support of MV-22 Block Upgrades. Continued field development efforts on test aircraft. Provided Research & Development support in areas of Reliability and Maintainability data analysis, loads and dynamics, electromagnetic environmental effects, V-22 avionics, facilities management, structures, communications, etc. Provided engineering, logistics, flight test, flight test support, envelope expansion testing and correction of deficiencies as required in support of the Flight Test Program, Block C, Defensive Weapon System, and the overall V-22 development program. Initiated support of instrumentation of test aircraft. Conductd aero-performance rebaseline, Time on Wing and Mission Computer Obsolescence Initative Testing. Expanded shipboard launch and recovery envelopes with additional dynamic interface testing. Conducted KPP sustainment testing of proprotor improvements and nacelle sail design. ***FY 2013 Plans:*** Continue in-house field activity support of Integrated Test Team, Integrated Product Teams, engineering and logistics. Continue development in support of MV-22 Block Upgrades. Continue field development efforts on test aircraft. Provide Research & Development support in areas of Reliability and Maintainability data analysis, loads and dynamics, electromagnetic environmental effects, V-22 avionics, facilities management, structures, communications, etc. Provide engineering, logistics, flight test, flight test support, envelope expansion testing and correction of deficiencies as required in support of the Flight Test Program, Block C, Defensive Weapon System, and the overall V-22 development program. Initiate support of instrumentation of test aircraft. Conduct aero-performance rebaseline, Time on Wing and Mission Computer Obsolescence Initative Testing. Expanded shipboard launch and recovery envelopes with additional dynamic interface testing. Conduct KPP sustainment testing of proprotor improvements and nacelle sail design. Continue support of instrumentation of test aircraft. Test B 5.01 software suite. Conduct			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*	PROJECT 1425: *V-22*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Joint and Allied Threat Awareness System testing. Conduct Aircraft Mission Maneuvering Envelope Expansion and Velocity Not to Exceed Expansion testing. ***FY 2014 Plans:*** Continue support of instrumentation of test aircraft. Conduct Joint and Allied Threat Awareness System (JATAS)/APR-39(D)v2 testing. Conduct Aircraft Time on Wing, Mission Maneuvering Envelope Expansion and Velocity Not to Exceed Expansion testing.			
Accomplishments/Planned Programs Subtotals	71.938	54.412	43.084

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN 0164: *V-22*	2,265.833	1,457.322	1,487.769		1,487.769	1,487.769	1,563.279	1,514.459	435.163	7,592.808	37,046.980
• APN 0590: *V-22 Series*	81.196	95.856	160.834		160.834	156.970	138.235	160.111	162.934	863.571	2,434.779
• APN 0605: *V-22 Inital Spares*	9.772	15.985	10.729		10.729	16.465	7.388	5.007	0.000	142.653	974.726
• RDTE 0401318F : *CV-22 USAF*	12.836	28.027	46.705		46.705	41.588	26.728	16.073	14.566	131.500	660.416
• RDTE 1160421BB: *CV-22 SOCOM*	10.497	1.822	0.000		0.000	0.000	0.000	0.000	0.000	0.000	519.807
• RDTE 1160403BB: *CV-22 Special Operations, Aviation Systems*	0.000	0.000	2.911		2.911	0.182	0.000	0.000	0.000	0.000	3.093

Remarks

D. Acquisition Strategy

The MV-22 is a post Milestone III ACAT-IC program. As a result of mishaps during and subsequent to MV-22 Operational Evaluation (Apr and Dec 00), the program was restructured employing a phased approach to return to flight and tactical introduction. The Contractor and Government defined deficient areas within the program/ aircraft requiring correction prior to return to flight. A Block Upgrade approach was planned, with required efforts identified in Block "A", "B", and "C". Block "A" included those efforts necessary to return the V-22 to safe and operational fleet operations. Block "B" included those efforts necessary to improve the effectiveness and suitability of the aircraft. Block "C" includes mission enhancements like weather radar, cabin effectiveness suitability improvements, i.e., Environmental Control System, and Forward Firing ALE-47. Non-recurring development activities are to be initiated and completed for all efforts identified in Block "A", "B", and "C". The Contractor will develop specific Statements of Work and Preliminary Specification Change Notices required to integrate the Block Upgrade efforts into the baseline Program. A Systems Requirements Review, Initial Design Review, and Final Design Review was held for each of the Block efforts so the design maturity could be reviewed and the Government could redirect activities as appropriate. The CV-22 Engineering Manufacturing and Development program is also structured in Blocks to define an evolutionary approach to achieving full operational capability. Block "0" is the initial baseline CV-22 variant. Block "10" enhances mission capability with

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*	PROJECT 1425: *V-22*

the addition of terrain following radar, additional fuel tanks, additional radios, and Block "20" includes capabilities such as radio frequency and infrared countermeasures improvements. Additional Blocks are in the planning stages to continue the growth process throughout the operational life of the weapon system.

E. Performance Metrics

Milestone Reviews.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*	PROJECT 1425: *V-22*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MV-22 Hardware Dev Airframe	SS/CPAF	Boeing Co.:Ridley Park, PA	3,820.466	33.123	Jan 2012	27.940	Jan 2013	24.176	Jan 2014	-		24.176	188.109	4,093.814	4,093.814
MV-22 Award Fee (BLK C)	SS/CPAF	Boeing Co.:Ridley Park, PA	212.167	0.000		0.000		0.000		-		0.000	0.000	212.167	212.167
MV-22 Hardware Dev Propulsion	SS/CPIF	Rolls-Royce Corp.:Indianapolis, IN	195.969	0.168	Jan 2012	0.807	Jan 2013	0.300	Jan 2014	-		0.300	0.500	197.744	197.744
MV-22 Hardware Dev Airframe:Instrumented A/C	SS/FPIF	Boeing Co.:Ridley Park, PA	0.000	21.110	Mar 2012	7.736	Mar 2013	0.000		-		0.000	0.000	28.846	28.846
Prior Year Prod Dev	Various	Various:Various	1,015.617	0.000		0.000		0.000		-		0.000	0.000	1,015.617	
		Subtotal	5,244.219	54.401		36.483		24.476		0.000		24.476	188.609	5,548.188	

Remarks

The Instrumented Aircraft was originally part of the Boeing Co. Hardware Dev. Airframe line. When the contract was awarded, it was awarded as a FPIF. It is now broken out as a separate line.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MV-22 Govt Engineering Sppt	WR	NAWCAD:Pax River, MD	1,099.706	1.926	Dec 2011	1.627	Nov 2012	1.686	Nov 2013	-		1.686	27.169	1,132.114	
Prior Year Support	Various	Various:Various	189.718	0.000		0.000		0.000		-		0.000	0.000	189.718	
		Subtotal	1,289.424	1.926		1.627		1.686		0.000		1.686	27.169	1,321.832	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MV-22 Dev Test & Evaluation	WR	NAWCAD:Pax River, MD	988.803	8.894	Dec 2011	8.722	Nov 2012	8.931	Nov 2013	-		8.931	43.315	1,058.665	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*	PROJECT 1425: *V-22*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MV-22 Operational Test & Evaluation	WR	OT&E Force:Norfolk, VA	41.914	4.010	Dec 2011	4.310	Dec 2012	4.709	Dec 2013	-		4.709	18.345	73.288	
Prior Year T & E	Various	Various:Various	48.200	0.000		0.000		0.000		-		0.000	0.000	48.200	
		Subtotal	1,078.917	12.904		13.032		13.640		0.000		13.640	61.660	1,180.153	

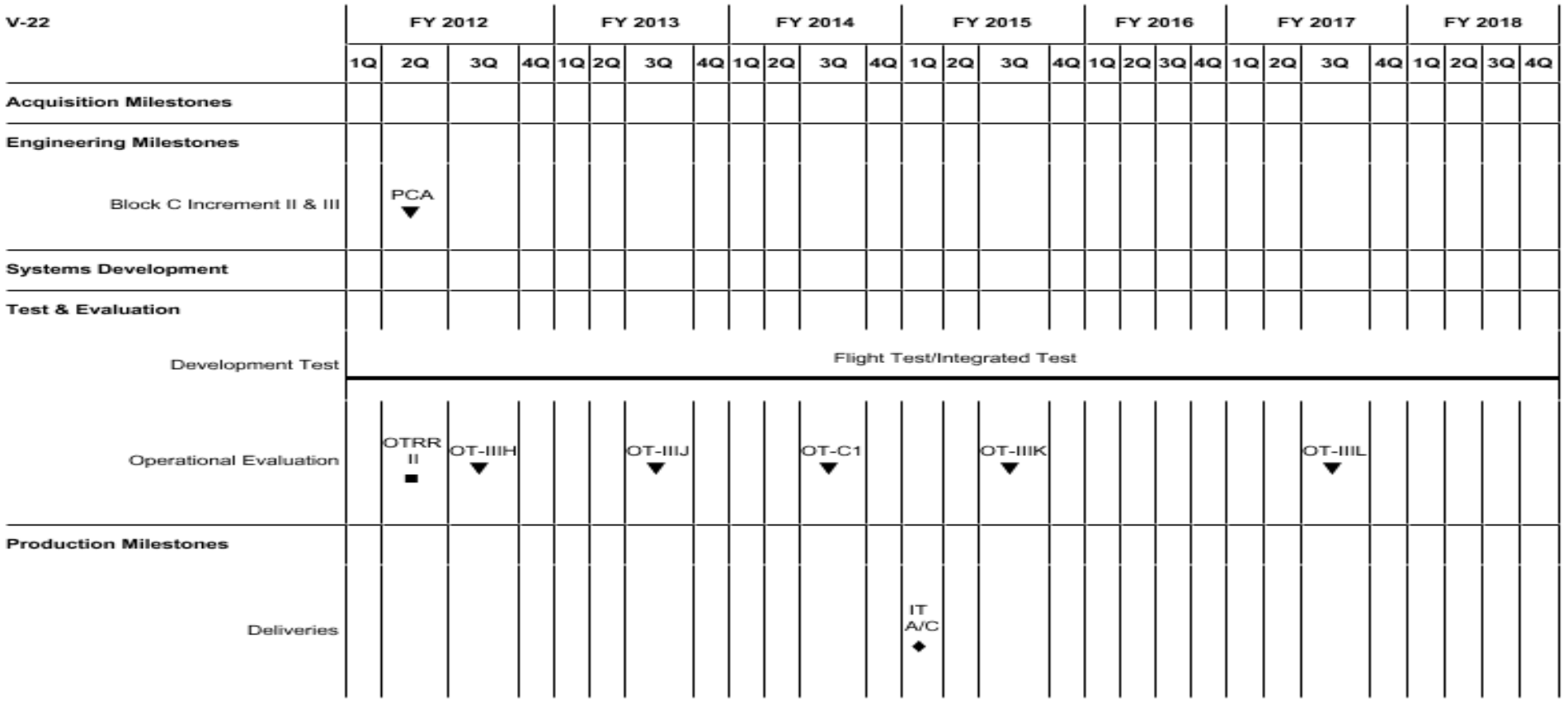
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MV-22 Engineering Tech Sppt	Various	Various:Various	1,045.448	0.675	Nov 2011	0.538	Nov 2012	0.484	Nov 2013	-		0.484	7.437	1,054.582	
MV-22 Management Sppt Svc	Various	Various:Various	154.325	0.543	Nov 2011	0.553	Nov 2012	0.641	Nov 2013	-		0.641	5.780	161.842	
MV-22 Program Mgmt Support	WR	NAWCAD:Pax River, MD	55.571	0.974	Nov 2011	1.855	Nov 2012	1.865	Nov 2013	-		1.865	10.136	70.401	
MV-22 Travel	WR	NAWCAD:Pax River, MD	15.272	0.515	Jan 2012	0.324	Jan 2013	0.292	Jan 2014	-		0.292	4.505	20.908	
Prior Year Mgmt	Various	Various:Various	41.087	0.000		0.000		0.000		-		0.000	0.000	41.087	
		Subtotal	1,311.703	2.707		3.270		3.282		0.000		3.282	27.858	1,348.820	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	8,924.263	71.938		54.412		43.084		0.000		43.084	305.296	9,398.993	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*	PROJECT 1425: *V-22*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604262N: *V-22A*	PROJECT 1425: *V-22*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
V-22				
Engineering Milestones: Block C Increment II & III: Block C Inc II & III PCA	2	2012	2	2012
Test & Evaluation: Development Test: Development Flight Test / Integrated Test (IT-IIID) & Continuous software sustainment developmental testing	1	2012	4	2018
Test & Evaluation: Operational Evaluation: Operational Testing (OT-IIIH)	3	2012	3	2012
Test & Evaluation: Operational Evaluation: Operational Testing (OT-IIIJ)	3	2013	3	2013
Test & Evaluation: Operational Evaluation: Joint and Allied Threat Awareness System Testing (OT-C1)	3	2014	3	2014
Test & Evaluation: Operational Evaluation: Operational Testing (OT-IIIK)	3	2015	3	2015
Test & Evaluation: Operational Evaluation: Operational Testing (OT-IIIL)	3	2017	3	2017
Test & Evaluation: Operational Evaluation: Operational Test Readiness Review (OTRR) II	2	2012	2	2012
Production Milestones: Deliveries: Instrumented Test Aircraft Delivery	1	2015	1	2015

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	89.792	2.620	2.717	11.401	-	11.401	16.316	13.813	13.179	5.651	Continuing	Continuing
0606: *Aircrew System Development*	89.792	2.620	2.717	11.401	-	11.401	16.316	13.813	13.179	5.651	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Aircrew Systems Development program provides Engineering and Manufacturing Development of Aviation Life Support Systems to protect aircrew and flight deck personnel from current and future threats including: directed energy weapons, chemical/biological/radiological agents/fallout, ballistic projectiles, temperature extremes, heat/fire, low concentration oxygen environments, high dynamic forces during emergency egress, hearing loss, and high "G" forces. The program also provides development for the following capabilities: night vision capability, hearing and head protection, man mounted data display, communications, clothing, in flight restraint and stability emergency egress and descent, escape and evasion, survival and rescue, crash protection, and anthropometric sizing for small aircrew. Acquisition initiatives include: competition, the application of streamlining initiatives, use of non-developmental items, joint and tri-service developments, and the pursuit of NATO/allied cooperative ventures, which expedite introduction of new products into Navy and Marine Corps fixed and rotary wing aircraft, reduce costs, and promote commonality.

This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production decision.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	3.249	2.717	6.759	-	6.759
Current President's Budget	2.620	2.717	11.401	-	11.401
Total Adjustments	-0.629	0.000	4.642	-	4.642
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.602	0.000			
• SBIR/STTR Transfer	-0.027	0.000			
• Program Adjustments	0.000	0.000	4.680	-	4.680
• Rate/Misc Adjustments	0.000	0.000	-0.038	-	-0.038

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*

Change Summary Explanation

Schedule:

1. Acquisition Milestones:
A. Joint Helmet Mounted Cueing System Night Vision - Full Rate Production Decision (FRPD) changed from 2Q12 to 2Q13 and Initial Operational Capability (IOC) added to 2Q13 to align with Joint Program Office / Air Force acquisition strategy.
B. Flight Deck Cranial - Milestone C Increment 2, FRPD Increment 2, and IOC Inc 2 removed due to pending restructure of the program's Increment 2.

2. Production Milestones:
A. Aircrew Endurance (AE) - Full Rate Production (FRP) 5 removed because FRP 4 production will complete the procurement of all assets. FY16 funding reallocated to Joint Helmet Mounted Cueing System Night Vision (JHMCS NV).
B. JHMCS NV - Low Rate Initial Production (LRIP) and FRP contract awards changed to align with Joint Program Office / Air Force acquisition strategy. LRIP 3 renamed to LRIP 2. FRP 1 renamed to LRIP 3. FRP 2 through 5 renamed to FRP 1 through 4.

3. Deliveries:
A. AE - FRP 5 removed because FRP 4 production will complete the procurement of all assets. LRIP quantity changed from 1184 to 2124 and FRP 1 quantity changed from 3780 to 3453 to reflect actual unit price changes. FRP 4 quantity changed from 804 to 772 to meet inventory objective.
B. JHMCS NV - All LRIP and FRP titles changed to align with Joint Program Office / Air Force acquisition strategy. EOC and LRIP 1 delivery periods were shifted due to startup production problems at the vendor's facilities. All future delivery periods delayed as a result of late contract awards. LRIP 1 changed to Early Operational Capability. LRIP 2 changed to LRIP 1 and delivery dates changed from 2Q11-1Q12 to 3Q12-2Q13. LRIP 3 changed to LRIP 2 and quantity changed from 5 to 11 due to economy of scale savings which were realized by combining USN and USAF procurements. FRP 1 renamed to LRIP 3 and delivery dates changed from 1Q13-4Q13 to 1Q14-2Q14. FRP 2 renamed to FRP 1 and quantity changed from 94 to 80. FRP 1-4 quantities decreased due to Department of Navy reallocating of funding to support Chief of Naval Operations (CNO) higher priorities. FRP 3 renamed to FRP 2 and quantity changed from 103 to 62. FRP 4 renamed to FRP 3 and quantity changed from 94 to 57. FRP 5 renamed to FRP 4 and quantity changed from 85 to 83.
C. Laser Eye Protection - FRP 2 quantity updated from 455 to 267 and FRP 3 quantity updated from 465 to 318 to align with Other Procurement Navy budget.
D. Flight Deck Cranial - FY12-FY17 unit cost and quantities vary depending on mix of Double Hearing Protection passive and communication hardware components being purchased. FY15-FY18 funding supports production of Triple Hearing Protection and improved cranials. Quantity increases reflect updated requirements letter from CNO (Ser N98/2U144949 dated 18 April 2012). FRP 1 quantity changed from 9839 to 14,428. FRP 2 quantity changed from 4065 to 10,538. FRP 4 quantity changed from 2420 to 4360. FRP 5 quantity changed from 2734 to 4445. FRP 6 quantity changed from 1393 to 5800.

Technical: N/A

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0606: *Aircrew System Development*	89.792	2.620	2.717	11.401	-	11.401	16.316	13.813	13.179	5.651	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

AIRCREW SYSTEMS: Aircrew Endurance (AE), Laser Eye Protection (LEP), Flight Deck Cranial (FDC), Joint Helmet Mounted Cueing System (JHMCS), Night Vision Cueing and Display (NVCD), Enhanced Visual Acuity (EVA), and Aircrew Systems (AS).

Under the above projects, AE includes Survival Vests & Armor, Universal Camouflage, Waste Management, Hydration, Cooling and Clothing Systems. LEP includes Laser Eye Protection for noncorrective and corrective lens, Multi-Wavelength Spectacles, and Laser Eye Protection Improvement Program (LEPIP). FDC includes Improved Hearing Protection and Cranial. JHMCS NVCD includes JHMCS Night Attack. EVA includes enhanced visibility in degraded visual environment technology. AS includes State of the Art (SOA).

AIRCRAFT SYSTEMS: Aircraft systems include studies for Advanced Crash Protection (ACP), SOA, and Electronic Knee Board (EKB). EKB provides digital display that will allow aircrew to store, search, and view significant amounts of data required for mission accomplishment during flight operations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Aircrew System Development	2.035	2.109	6.752
Articles:	0	0	0
Description: AE includes Survival Vests & Armor, Universal Camouflage, Waste Management, Hydration Cooling and Clothing Systems. LEP includes LEP Spectacles (both Self Protection and Multi-Wavelength), step-in visor and LEPIP. FDC includes Improved Hearing Protection and cranial. JHMCS NVCD includes JHMCS Night Attack. EVA includes enhanced visability in degraded visual environment technology. AS includes SOA.			
FY 2012 Accomplishments: AIRCREW SYSTEMS: Aircrew Endurance (AE), Laser Eye Protection (LEP), Flight Deck Cranial (FDC), Joint Helmet Mounted Cueing System (JHMCS), Night Vision Cueing and Display (NVCD), EVA and Aircrew Systems. AE: Deliver AE vest system. Initial Operational Capability (IOC) of the AE vest system. Procure additional quantities. LEP: Begin Development Testing on second increment Spectacles and IOC of first increment Spectacles.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FDC: Complete FDC system vertification and evaluation. Complete the final phase of the shipboard integration. JHMCS NVCD: Address any required engineering changes discovered during Operational Testing. EVA: Complete Milestone A and enter Technology Development phase. SOA: Continue the evaluation and authorization of the survival and clothing items. ***FY 2013 Plans:*** AE: Development of new outer jacket system for inclement weather conditions LEP: IOC of Multi-wave Spectacles. JHMCS NVCD: Award of Full Rate Production contract. EVA: Continue Technology Development SOA: Continue a yearly evaluation and authorization of the survival and clothing items. Identification, testing and approval of Commercial Off-the-Shelf items that provide upgrade performance, fill capability gaps, improve aircrew performance, safety and enhance survivibility. ***FY 2014 Plans:*** LEP: Continue research & development for next increment of threat spectacles. EVA: Continue Technology Development. SOA: Continue a yearly evaluation and authorization of the survival, clothing, and other aircrew systems items. Identification, testing and approval of Commercial Off-the-Shelf items that provide upgrade performance, fill capability gaps, improve aircrew performance, safety and enhance survivibility.			
Title: Aircraft Systems Development ***Articles:*** ***Description:*** Aircraft Systems include studies for Advance Crash Protection, Crashworthy Troop Seats, State of the Art, and Electronic Knee Board (EKB). ***FY 2012 Accomplishments:*** Non Ejection Seat Endurance (NESE): Deliver all NESE cushions to fleet. Reach Material Support Date and Navy Support Date. ***FY 2013 Plans:*** Electronic Knee Board: Continue development. ***FY 2014 Plans:*** EKB: Complete Milestone B.	0.585 0	0.608 0	4.649 0
Accomplishments/Planned Programs Subtotals	2.620	2.717	11.401

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/4244: *Aviation Life Support*	68.246	40.475	29.670		29.670	28.914	36.178	42.678	48.397	Continuing	Continuing
• APN/0575: *Aviation Life Support Mods*	0.987	2.473	6.267		6.267	6.691	5.886	2.250	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

Commercial Off-The-Shelf /Non-Developmental Items where possible, cost plus award fee contracts. Majority of programs non-ACAT programs.

E. Performance Metrics

Aircrew Endurance: Performance Metrics to include Milestone (MS) C, Full Rate Production (FRP) and Initial Operational Capability (IOC).
Laser Eye Protection (Spectacles): Performance Metrics to include Critical Design Review (CDR), MS C, and IOC.
Flight Deck Cranial: Performance Metrics to include CDR, MS C, FRP, and IOC.
Electronic Knee Board: Performance Metrics to include Preliminary Design Review, CDR, MS B, MS C, and IOC.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Eng Aircrew Endurance	WR	NAWCAD:Patuxent River, MD	6.729	0.297	Feb 2012	0.368	Feb 2013	0.502	Feb 2014	-		0.502	3.947	11.843	
Systems Eng Laser Eye Protection (LEP)	WR	NAWCAD:Patuxent River, MD	4.953	0.275	Dec 2011	0.352	Dec 2012	1.163	Apr 2014	-		1.163	3.163	9.906	
Systems Eng Flight Deck Cranial (FDC)	WR	NAWCAD:Patuxent River, MD	3.214	0.268	Dec 2011	0.145	Dec 2012	0.000		-		0.000	0.000	3.627	
Systems Eng Joint Helmet Mounted Cueing System Night Vision Cueing & Display	Various	Various:Various	7.729	0.054	Nov 2011	0.040	Nov 2012	0.000		-		0.000	0.000	7.823	
Systems Eng Aircrew Systems	WR	Various:Various	6.331	0.198	Dec 2011	0.289	Dec 2012	0.418	Feb 2014	-		0.418	17.414	24.650	
Systems Eng Aircraft Sys	WR	Various:Various	39.795	0.541	Dec 2011	0.606	Dec 2012	0.640	Feb 2014	-		0.640	1.299	42.881	
System Eng Enhanced Visual Acuity	WR	Various:Various	0.000	0.156	Nov 2011	0.196	Nov 2012	4.497	Apr 2014	-		4.497	20.593	25.442	
System Eng Electronic Knee Board	C/FFP	TBD:TBD	0.000	0.000		0.000		4.147	Feb 2014	-		4.147	3.808	7.955	7.955
Prior year cost no longer funded in the FYDP	Various	Various:Various	9.583	0.000		0.000		0.000		-		0.000	0.000	9.583	
		Subtotal	78.334	1.789		1.996		11.367		0.000		11.367	50.224	143.710	

Management Services ($ in Millions)

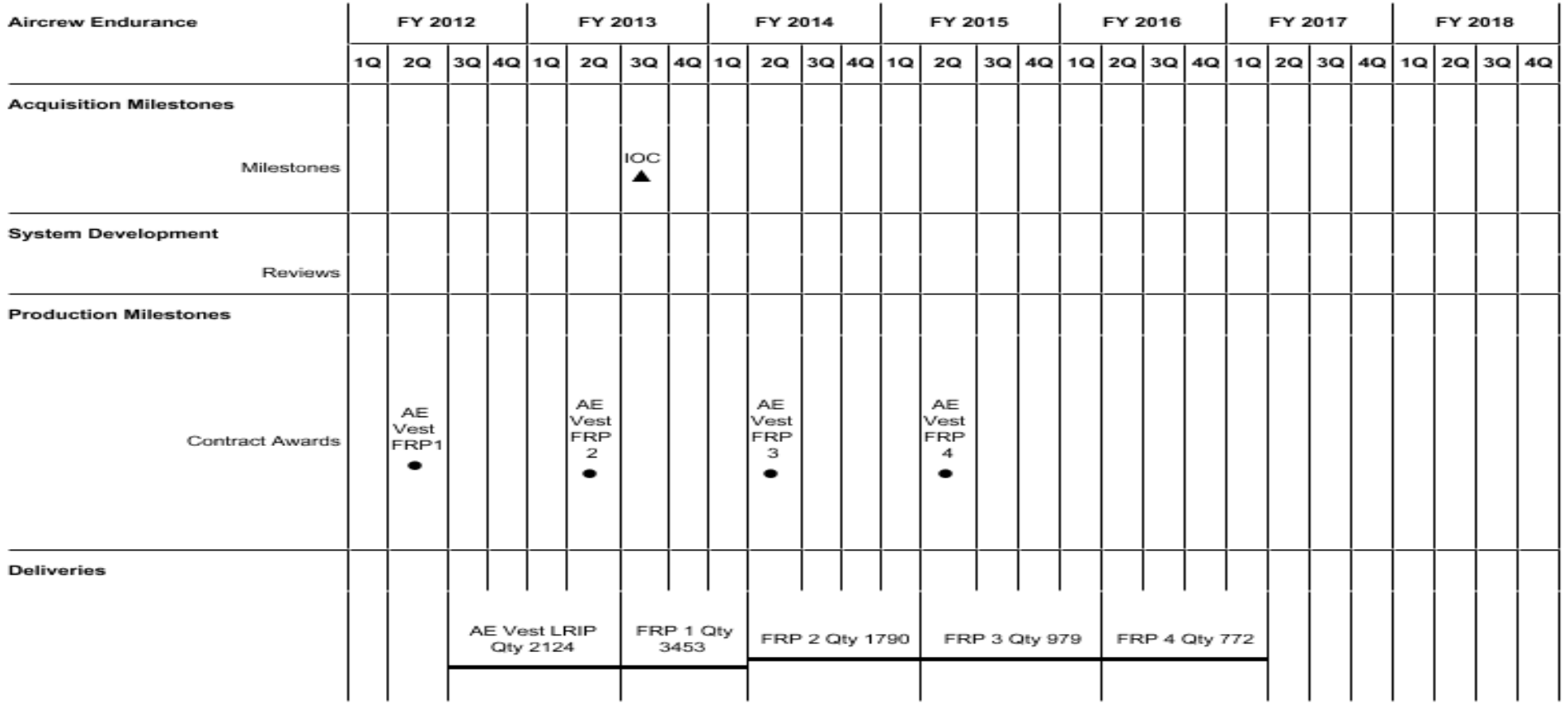
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor ETS	C/CPFF	Red Inc:Lexington Park, MD	9.434	0.653	Dec 2011	0.542	Dec 2012	0.000		-		0.000	0.000	10.629	10.629
Contractor MSS	C/CPFF	Tekla:Woodbridge, VA	1.050	0.114	Feb 2012	0.130	Feb 2013	0.000		-		0.000	0.000	1.294	1.294
Travel	WR	Various:Various	0.974	0.064	Dec 2011	0.049	Dec 2012	0.034	Dec 2013	-		0.034	Continuing	Continuing	Continuing
		Subtotal	11.458	0.831		0.721		0.034		0.000		0.034			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	89.792	2.620		2.717		11.401		0.000		11.401			

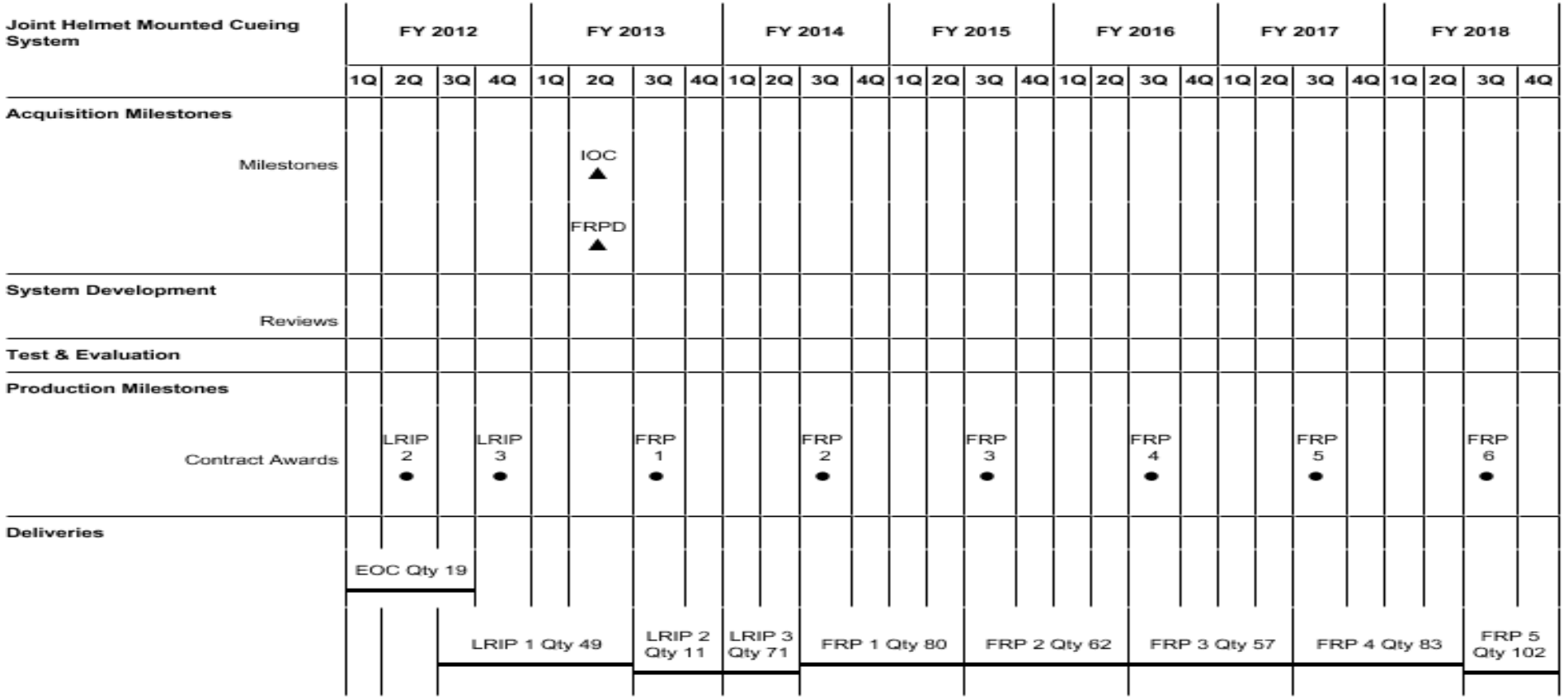
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*



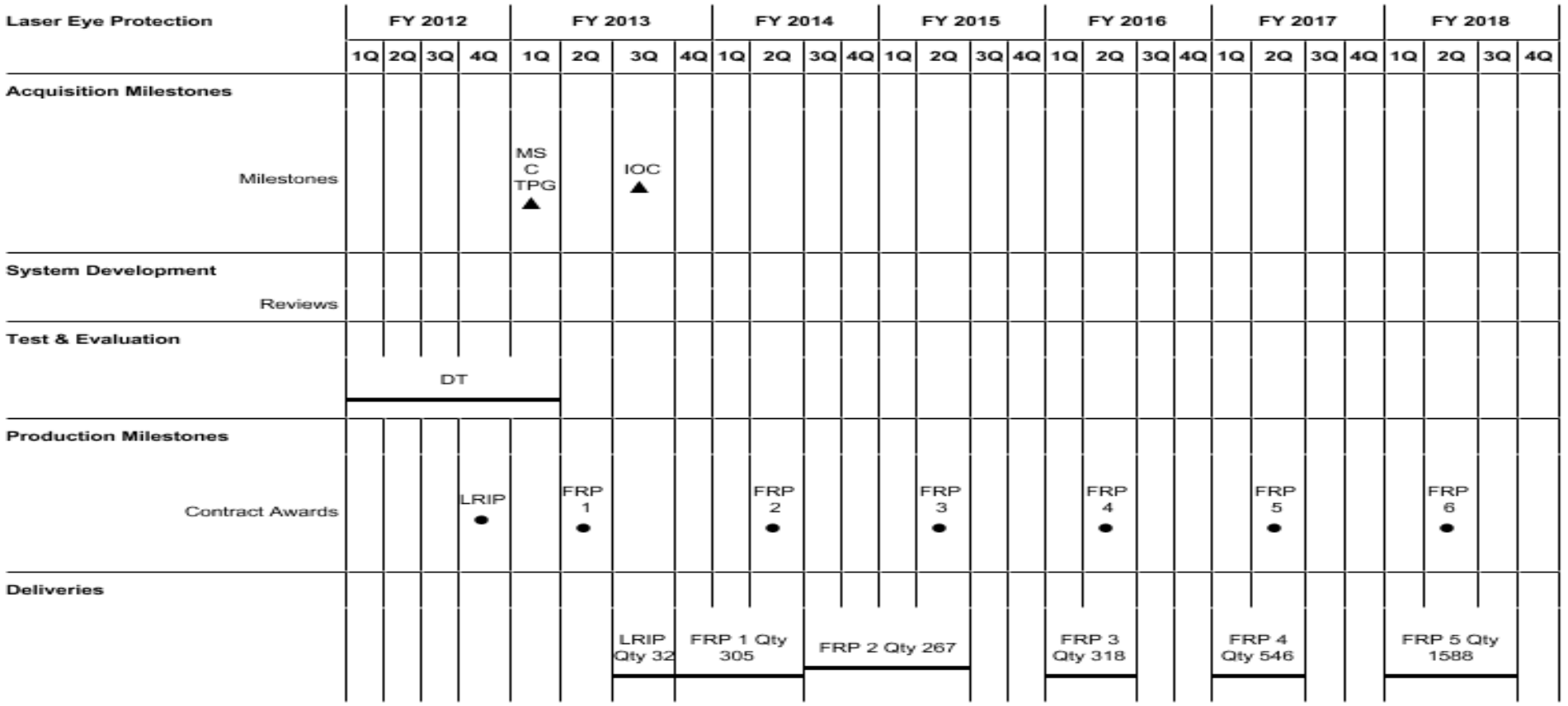
2014PB - 0604264N - 0606

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*



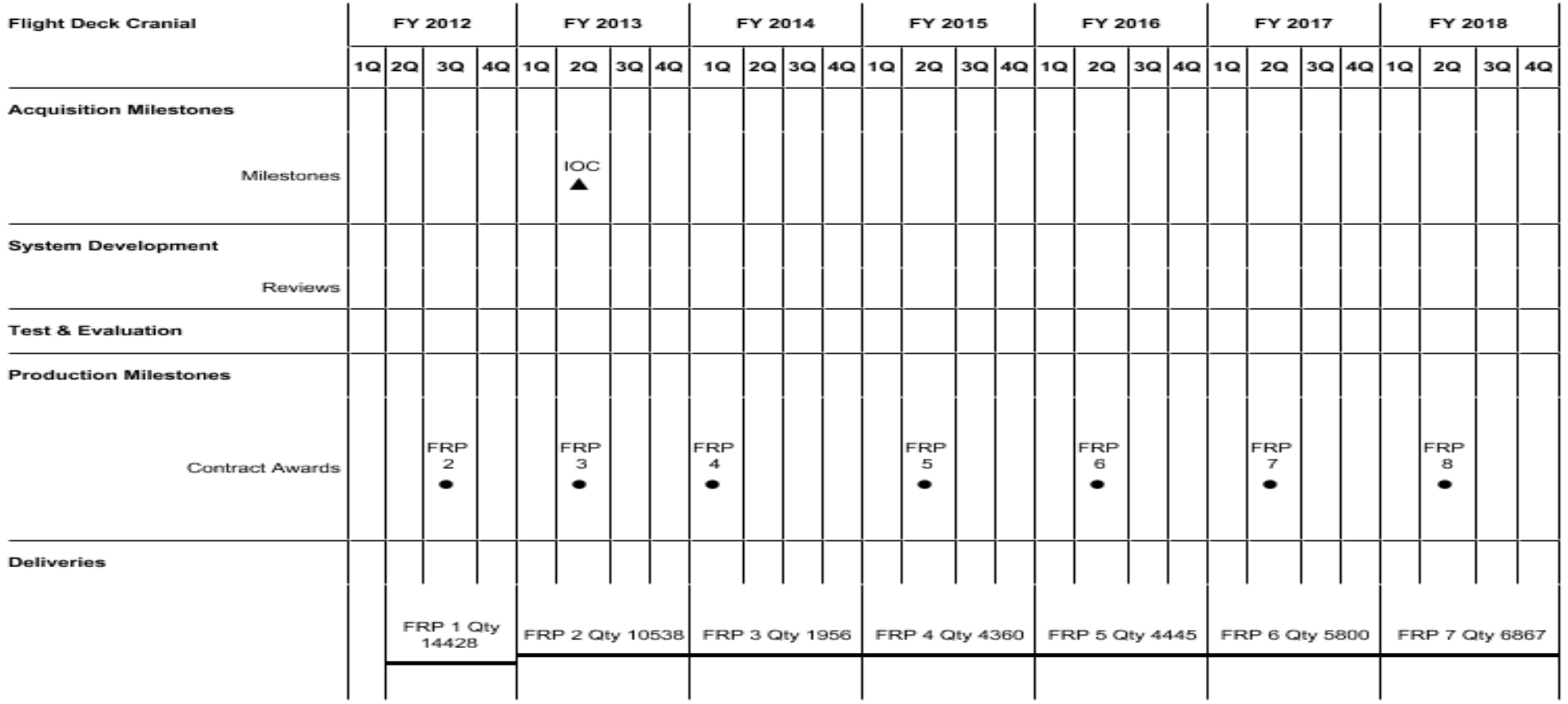
2014PB - 0604264N - 0606

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*



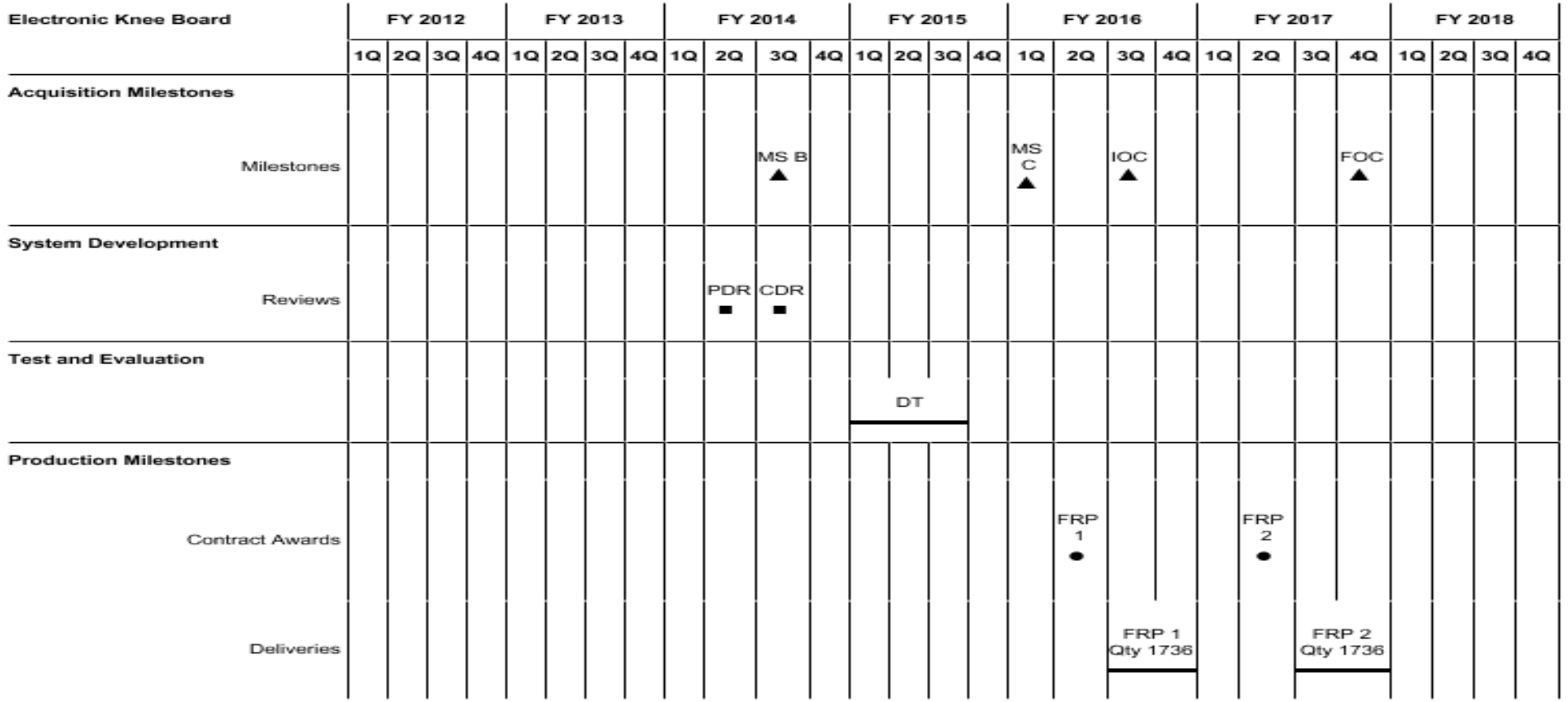
2014PB - 0604264N - 0606

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*



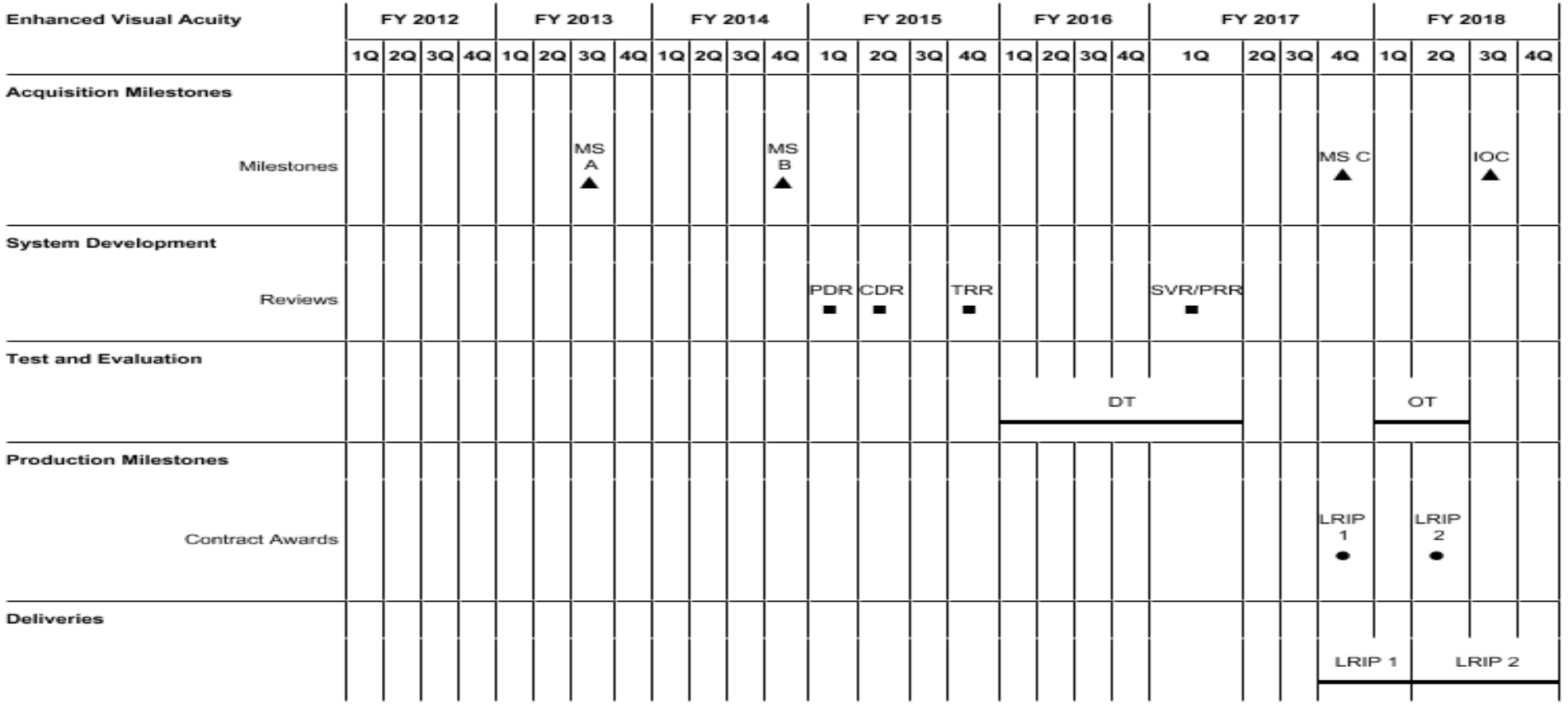
2014PB - 0604264N - 0606

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*



2014PB - 0604264N - 0606

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*



2014PB - 0604264N - 0606

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604264N: *Air Crew Systems Development*	**PROJECT** 0606: *Aircrew System Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Aircrew Endurance				
Acquisition Milestones: Milestones: Initial Operational Capability (IOC)	3	2013	3	2013
Production Milestones: Contract Awards: Aircrew Endurance Vest FRP 1	2	2012	2	2012
Production Milestones: Contract Awards: Aircrew Endurance Vest FRP 2	2	2013	2	2013
Production Milestones: Contract Awards: Aircrew Endurance Vest FRP 3	2	2014	2	2014
Production Milestones: Contract Awards: Aircrew Endurance Vest FRP 4	2	2015	2	2015
Deliveries: Aircrew Endurance Vest LRIP Qty 2124	3	2012	2	2013
Deliveries: Aircrew Endurance FRP 1 Qty 3453	3	2013	1	2014
Deliveries: Aircrew Endurance FRP 2 Qty 1790	2	2014	1	2015
Deliveries: Aircrew Endurance FRP 3 Qty 979	2	2015	1	2016
Deliveries: Aircrew Endurance FRP 4 Qty 772	2	2016	1	2017
Joint Helmet Mounted Cueing System				
Acquisition Milestones: Milestones: JHMCS IOC	2	2013	2	2013
Acquisition Milestones: Milestones: JHMCS FRPD	2	2013	2	2013
Production Milestones: Contract Awards: JHMCS LRIP 2	2	2012	2	2012
Production Milestones: Contract Awards: JHMCS LRIP 3	4	2012	4	2012
Production Milestones: Contract Awards: JHMCS FRP 1	3	2013	3	2013
Production Milestones: Contract Awards: JHMCS FRP 2	3	2014	3	2014
Production Milestones: Contract Awards: JHMCS FRP 3	3	2015	3	2015
Production Milestones: Contract Awards: JHMCS FRP 4	3	2016	3	2016
Production Milestones: Contract Awards: JHMCS FRP 5	3	2017	3	2017
Production Milestones: Contract Awards: JHMCS FRP 6	3	2018	3	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Deliveries: JHMCS EOC	1	2012	3	2012
Deliveries: JHMCS LRIP 1 Qty 49	3	2012	2	2013
Deliveries: JHMCS LRIP 2 Qty 11	3	2013	4	2013
Deliveries: JHMCS LRIP 3 Qty 71	1	2014	2	2014
Deliveries: JHMCS FRP 1 Qty 80	3	2014	2	2015
Deliveries: JHMCS FRP 2 Qty 62	3	2015	2	2016
Deliveries: JHMCS FRP 3 Qty 57	3	2016	2	2017
Deliveries: JHMCS FRP 4 Qty 83	3	2017	2	2018
Deliveries: JHMCS FRP 5 Qty 102	3	2018	4	2018
Laser Eye Protection				
Acquisition Milestones: Milestones: LEP: MS C Threat Protection Goggles	1	2013	1	2013
Acquisition Milestones: Milestones: LEP: IOC	3	2013	3	2013
Test & Evaluation: LEP/SPECTACLE: DT	1	2012	1	2013
Production Milestones: Contract Awards: Laser Eye Protection LRIP	4	2012	4	2012
Production Milestones: Contract Awards: Laser Eye Protection FRP 1	2	2013	2	2013
Production Milestones: Contract Awards: Laser Eye Protection FRP 2	2	2014	2	2014
Production Milestones: Contract Awards: Laser Eye Protection FRP 3	2	2015	2	2015
Production Milestones: Contract Awards: Laser Eye Protection FRP 4	2	2016	2	2016
Production Milestones: Contract Awards: Laser Eye Protection FRP 5	2	2017	2	2017
Production Milestones: Contract Awards: Laser Eye Protection FRP 6	2	2018	2	2018
Deliveries: Laser Eye Protection LRIP Qty 32	3	2013	3	2013
Deliveries: Laser Eye Protection FRP 1 Qty 305	4	2013	2	2014
Deliveries: Laser Eye Protection FRP 2 Qty 267	3	2014	2	2015
Deliveries: Laser Eye Protection FRP 3 Qty 318	1	2016	2	2016
Deliveries: Laser Eye Protection FRP 4 Qty 546	1	2017	2	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Deliveries: Laser Eye Protection FRP 5 Qty 1588	1	2018	3	2018
Flight Deck Cranial				
Acquisition Milestones: Milestones: FDC: IOC	2	2013	2	2013
Production Milestones: Contract Awards: Flight Deck Cranial FRP 2	3	2012	3	2012
Production Milestones: Contract Awards: Flight Deck Cranial FRP 3	2	2013	2	2013
Production Milestones: Contract Awards: Flight Deck Cranial FPR 4	1	2014	1	2014
Production Milestones: Contract Awards: Flight Deck Cranial FPR 5	2	2015	2	2015
Production Milestones: Contract Awards: Flight Deck Cranial FPR 6	2	2016	2	2016
Production Milestones: Contract Awards: Flight Deck Cranial FPR 7	2	2017	2	2017
Production Milestones: Contract Awards: Flight Deck Cranial FPR 8	2	2018	2	2018
Deliveries: Flight Deck Cranial FRP 1 Qty 14,428	2	2012	4	2012
Deliveries: Flight Deck Cranial FRP 2 Qty 10,538	1	2013	4	2013
Deliveries: Flight Deck Cranial FRP 3 Qty 1956	1	2014	4	2014
Deliveries: Flight Deck Cranial FRP 4 Qty 4360	1	2015	4	2015
Deliveries: Flight Deck Cranial FRP 5 Qty 4445	1	2016	4	2016
Deliveries: Flight Deck Cranial FRP 6 Qty 5800	1	2017	4	2017
Deliveries: Flight Deck Cranial FPR 7 Qty 6867	1	2018	4	2018
Electronic Knee Board				
Acquisition Milestones: Milestones: EKB Milestone B	3	2014	3	2014
Acquisition Milestones: Milestones: EKB Milestone C	1	2016	1	2016
Acquisition Milestones: Milestones: EKB IOC	3	2016	3	2016
Acquisition Milestones: Milestones: EKB FOC	4	2017	4	2017
System Development: Reviews: EKB PDR	2	2014	2	2014
System Development: Reviews: EKB CDR	3	2014	3	2014
Test and Evaluation: EKB Developmental Testing	1	2015	3	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604264N: *Air Crew Systems Development*	PROJECT 0606: *Aircrew System Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Production Milestones: Contract Awards: EKB FRP 1	2	2016	2	2016
Production Milestones: Contract Awards: EKB FRP 2	2	2017	2	2017
Production Milestones: Deliveries: EKB FRP 1 Qty 1736	3	2016	4	2016
Production Milestones: Deliveries: EKB FRP 2 Qty 1736	3	2017	4	2017
Enhanced Visual Acuity				
Acquisition Milestones: Milestones: EVA Milestone A	3	2013	3	2013
Acquisition Milestones: Milestones: EVA Milestone B	4	2014	4	2014
Acquisition Milestones: Milestones: EVA Milestone C	4	2017	4	2017
Acquisition Milestones: Milestones: EVA IOC	3	2018	3	2018
System Development: Reviews: EVA PDR	1	2015	1	2015
System Development: Reviews: EVA CDR	2	2015	2	2015
System Development: Reviews: EVA TRR	4	2015	4	2015
System Development: Reviews: EVA SVR/PRR	1	2017	1	2017
Test and Evaluation: EVA Integrated Testing	1	2016	1	2017
Test and Evaluation: EVA Operational Testing	1	2018	2	2018
Production Milestones: Contract Awards: EVA LRIP 1	4	2017	4	2017
Production Milestones: Contract Awards: EVA LRIP 2	2	2018	2	2018
Deliveries: EVA LRIP 1	4	2017	1	2018
Deliveries: EVA LRIP 2	2	2018	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	1,778.411	14.770	13.009	11.138	-	11.138	19.563	16.438	16.383	14.149	Continuing	Continuing
3063: *EA-18G Development*	1,778.411	14.770	13.009	11.138	-	11.138	19.563	16.438	16.383	14.149	Continuing	Continuing
MDAP/MAIS Code(s): 378												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

The EA-18G Development program is no longer a Major Defense Acquisition Program due to the nature of the current requirements of the program.

A. Mission Description and Budget Item Justification

The EA-18G is replacing the EA-6B aircraft as the primary Electronic Attack platform supporting the Navy and Marine Corps, as the EA-6B is fully phased out the EA-18G will be the sole EA aircraft in the inventory.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	17.100	13.009	15.311	-	15.311
Current President's Budget	14.770	13.009	11.138	-	11.138
Total Adjustments	-2.330	0.000	-4.173	-	-4.173
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.948	0.000			
• SBIR/STTR Transfer	-0.382	0.000			
• Program Adjustments	0.000	0.000	-3.033	-	-3.033
• Rate/Misc Adjustments	0.000	0.000	-1.140	-	-1.140

Change Summary Explanation

Technical: Not applicable.

Schedule: FRP delivery end date moved from 3Q13 to 2Q15, updated to reflect current EA-18G program of record. Uneven funding profile reflects impact of $3M under-execution re-phasing mark from FY14 into FY15. Obsolescence redesign program added beginning in FY14.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*	PROJECT 3063: *EA-18G Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3063: *EA-18G Development*	1,778.411	14.770	13.009	11.138	-	11.138	19.563	16.438	16.383	14.149	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The EA-18G is the replacement aircraft for the EA-6B. The EA-18G development program upgrades the EA-6B's Airborne Electronic Attack (AEA) capability to detect, identify, locate and suppress hostile emitters; provides enhanced connectivity to National, Theater and Strike assets; and provides organic precision emitter targeting for employment of onboard suppression weapons (High-speed Anti-Radiation Missile family) to fulfill operational requirements. The performance of the aircraft is compatible with the primary strike/fighter aircraft projected to be in the inventory, allowing it to be fully integrated into specific strike packages.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: EA-18G Design and Avionics Integration	7.921	2.859	1.151
Articles:	0	0	0
Description: The EA-18G has the capability to operate autonomously or as a major node in a network-centric operation and is being designed to perform a range of Electronic Warfare/Electronic Attack functions either simultaneously or independently. Funding will be utilized for design and integration of avionics systems into the EA-18G. ***FY 2012 Accomplishments:*** Continue Air Vehicle design and integration of avionics into the EA-18G. ***FY 2013 Plans:*** Continue Air Vehicle design and integration of avionics into the EA-18G. Main effort will be the continuing integration of improvements developed through the Jamming Techniques Optimization (JATO) teams. Funded JATO efforts have been significantly reduced from prior years to support the development of software related capabilities. ***FY 2014 Plans:*** Continue Air Vehicle design and integration of avionics into the EA-18G. Main effort will be the continuing integration of improvements developed through the Jamming Techniques Optimization (JATO) teams. Funded JATO efforts have been significantly reduced from prior years to support the development of software related capabilities.			
Title: EA-18G Software Development	6.849	9.550	9.756
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*	PROJECT 3063: *EA-18G Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Description: Continued capability enhancements to improve the EA-18G Airborne Electronic Attack capabilities are predominantly realized through evolutionary software upgrades. Funding will be utilized to develop improved software capabilities for the EA-18G through System Configuration Set block software updates. ***FY 2012 Accomplishments:*** Continue software development of the EA-18G. ***FY 2013 Plans:*** Funded software development efforts have been significantly increased to support the expanded development requirements of software related capabilities. FY13 funds will continue System Configuration Set (SCS) block software development and integration for the EA-18G, specifically SCS builds 25X, 27X, H10 and H12. ***FY 2014 Plans:*** Funded software development efforts have been significantly increased to support the expanded development requirements of software related capabilities. FY14 funds will continue System Configuration Set (SCS) block software development and integration for the EA-18G, specifically SCS builds 25X, 27X, H10 and H12.			
Title: EA-18G Developmental & Operational Testing ***Articles:*** ***Description:*** Funding will be utilized to support required test phases of the EA-18G. ***FY 2013 Plans:*** Perform operational test of EA-18G avionics upgrades and System Configuration Set block software updates that were deferred from FY12. ***FY 2014 Plans:*** Continued operational test of EA-18G avionics upgrades and System Configuration Set block software updates.	0.000 0	0.600 0	0.131 0
Title: EA-18G Obsolescence Redesign ***Articles:*** ***Description:*** Develop and test design modifications to address obsolescence issues. ***FY 2014 Plans:*** Develop and test design modifications to hardware components and software systems in response to EA-18G weapon system and ancillary equipment obsolescence issues.	0.000 0	0.000	0.100 0
Accomplishments/Planned Programs Subtotals	14.770	13.009	11.138

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*	PROJECT 3063: *EA-18G Development*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/014300: *EA-18G*	989.577	1,027.443	2,001.787		2,001.787	45.583	0.000	0.000	0.000	0.000	10,663.106
• APN/05250: *F-18 Series (OSIP 011-10)*	8.750	6.693	23.212		23.212	44.478	16.555	16.746	37.671	188.500	345.389
• RDTEN/1662: *F/A-18 Improvement*	97.361	124.223	128.032		128.032	113.345	101.963	73.568	86.854	Continuing	Continuing

Remarks

D. Acquisition Strategy

The program achieved Full Rate Production in November 2009. Contractual studies are underway for Operational Requirement Document core Block II activities and those efforts will be integrated into the overall EA-18G plan/roadmap as resources permit. EA-18G software upgrades are incrementally developed, integrated and fielded. Software development and integration are coordinated efforts between government activities and industry partners to field capability upgrades to the EA-18G fleet.

E. Performance Metrics

Completion of Full Rate Production Delivery of EA-18G aircraft scheduled for 2nd Quarter FY2015.

Complete incorporation of EA-18G specific upgrades into the System Configuration Set block software builds to meet planned Fleet Release dates.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*	PROJECT 3063: *EA-18G Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering (System Configuration Set / Software)	WR	NAWCAD:Pax River, MD	30.396	0.000		0.014	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering (SCS/SW)	WR	NAWCWD:China Lake, CA	80.230	0.466	Nov 2011	0.375	Nov 2012	0.362	Nov 2013	-		0.362	Continuing	Continuing	Continuing
Systems Engineering (JATO/SCS/SW)	WR	NAWCWD:Pt. Mugu, CA	48.720	9.062	Dec 2011	9.036	Nov 2012	9.128	Nov 2013	-		9.128	Continuing	Continuing	Continuing
Systems Engineering (JATO)	WR	NSCW Det:Crane, IN	14.012	0.250	Nov 2011	0.275	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering (JATO)	WR	Naval Research Laboratory:Washington, DC	1.072	0.950	Dec 2011	0.599	Feb 2013	0.200	Feb 2014	-		0.200	Continuing	Continuing	Continuing
Systems Engineering (JATO)	WR	NAVSEASYSCOM:Washington, DC	2.414	1.900	Apr 2012	0.500	Feb 2013	0.250	Feb 2014	-		0.250	Continuing	Continuing	Continuing
Prior Year Dev cost no longer funded in FYDP	Various	Various:Various	1,078.974	0.000		0.000		0.000		-		0.000	0.000	1,078.974	
		Subtotal	1,255.818	12.628		10.799		9.940		0.000		9.940			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	Various:Various	4.876	0.494	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Obsolescence Redesign	TBD	TBD:TBD	0.000	0.000		0.000		0.100	Jun 2014	-		0.100	Continuing	Continuing	Continuing
Prior Year Support cost no longer funded in FYDP	Various	Various:Various	230.419	0.000		0.000		0.000		-		0.000	0.000	230.419	
		Subtotal	235.295	0.494		0.000		0.100		0.000		0.100			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*	PROJECT 3063: *EA-18G Development*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integration & Operational Testing	WR	Various:Various	111.707	0.000		0.600	Nov 2012	0.131	Nov 2013	-		0.131	Continuing	Continuing	Continuing
Prior Year T&E cost no longer funded in FYDP	Various	Various:Various	106.400	0.000		0.000		0.000		-		0.000	0.000	106.400	
		Subtotal	218.107	0.000		0.600		0.131		0.000		0.131			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support (Seaport-CSS)	C/CPFF	Wyle Lab:Pax River, MD	12.212	0.321	Nov 2011	0.331	Nov 2012	0.175	Nov 2013	-		0.175	1.073	14.112	14.112
Government Engineering Support	WR	NAWCAD:Pax River, MD	31.366	0.731	Nov 2011	0.714	Nov 2012	0.478	Nov 2013	-		0.478	Continuing	Continuing	Continuing
Program Management Support	WR	NAWCAD:Pax River, MD	21.833	0.480	Nov 2011	0.515	Nov 2012	0.277	Nov 2013	-		0.277	Continuing	Continuing	Continuing
Travel	WR	Various:Various	2.439	0.116	Nov 2011	0.050	Nov 2012	0.037	Nov 2013	-		0.037	Continuing	Continuing	Continuing
Prior Year Mgmt cost no longer funded in FYDP	Various	Various:Various	1.341	0.000		0.000		0.000		-		0.000	0.000	1.341	
		Subtotal	69.191	1.648		1.610		0.967		0.000		0.967			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,778.411	14.770		13.009		11.138		0.000		11.138			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*	PROJECT 3063: *EA-18G Development*

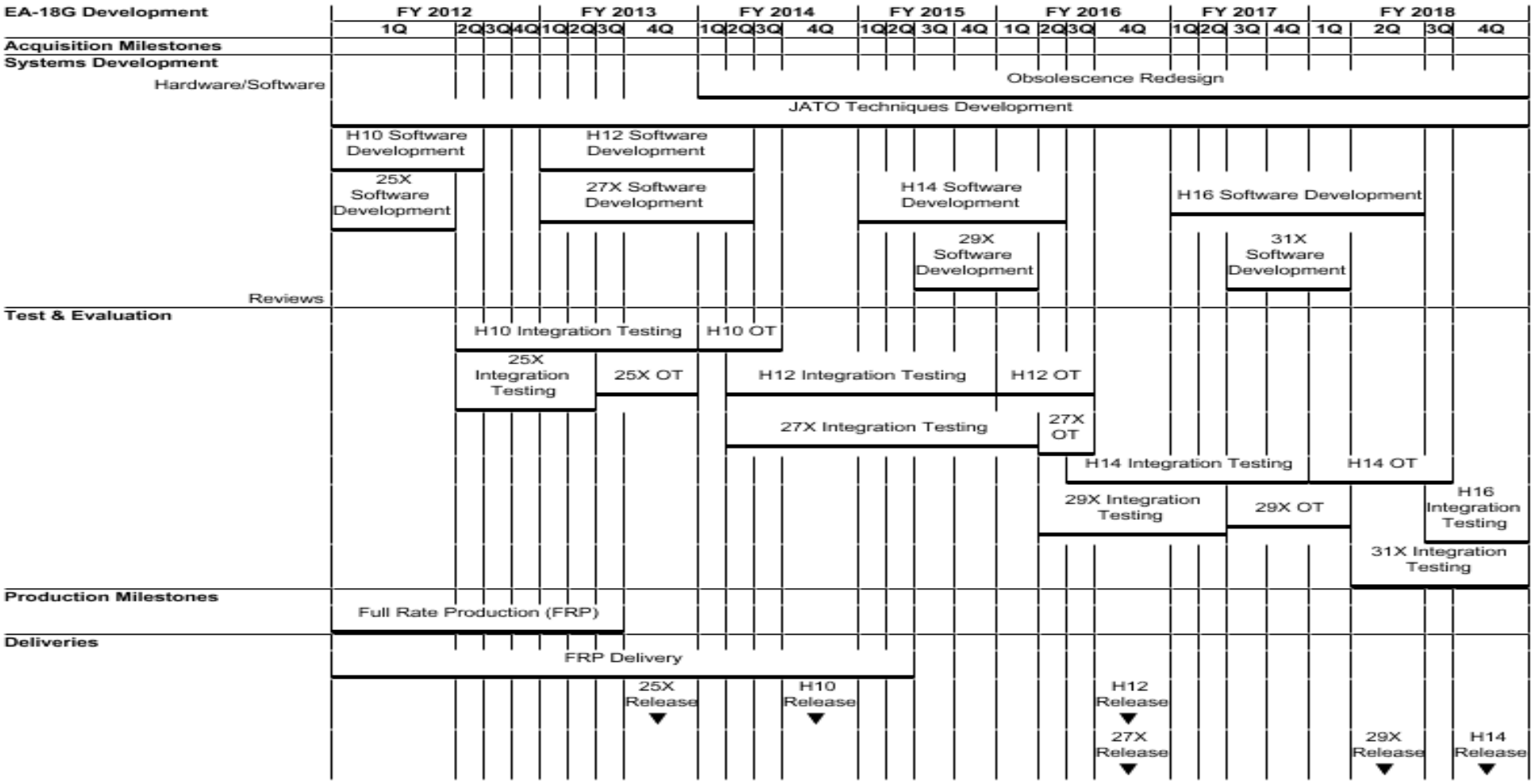


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*	PROJECT 3063: *EA-18G Development*

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*	PROJECT 3063: *EA-18G Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
EA-18G Development				
Systems Development: Hardware/Software: Obsolescence Redesign Development and Testing	1	2014	4	2018
Systems Development: Hardware/Software: JATO Techniques Development	1	2012	4	2018
Systems Development: Hardware/Software: H10 Software Development	1	2012	2	2012
Systems Development: Hardware/Software: H12 Software Development	1	2013	2	2014
Systems Development: Hardware/Software: 25X Software Development	1	2012	1	2012
Systems Development: Hardware/Software: 27X Software Development	1	2013	2	2014
Systems Development: Hardware/Software: H14 Software Development	1	2015	2	2016
Systems Development: Hardware/Software: H16 Software Development	1	2017	2	2018
Systems Development: Hardware/Software: 29X Software Development	3	2015	1	2016
Systems Development: Hardware/Software: 31X Software Development	3	2017	1	2018
Test & Evaluation: H10 Integration Testing	2	2012	4	2013
Test & Evaluation: H10 OT	1	2014	3	2014
Test & Evaluation: H12 Integration Testing	2	2014	4	2015
Test & Evaluation: H12 OT	1	2016	3	2016
Test & Evaluation: 25X Integration Testing	2	2012	2	2013
Test & Evaluation: 25X OT	3	2013	4	2013
Test & Evaluation: 27X Integration Testing	2	2014	1	2016
Test & Evaluation: 27X OT	2	2016	3	2016
Test & Evaluation: H14 Integration Testing	3	2016	4	2017
Test & Evaluation: H14 OT	1	2018	3	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604269N: *EA-18 Squadrons*	PROJECT 3063: *EA-18G Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test & Evaluation: H16 Integration Testing	3	2018	4	2018
Test & Evaluation: 29X Integration Testing	2	2016	2	2017
Test & Evaluation: 29X OT	3	2017	1	2018
Test & Evaluation: 31X Integration Testing	2	2018	4	2018
Production Milestones: Full Rate Production	1	2012	3	2013
Deliveries: FRP Delivery	1	2012	2	2015
Deliveries: H10 Fleet Release	4	2014	4	2014
Deliveries: H12 Fleet Release	4	2016	4	2016
Deliveries: 25X Fleet Release	4	2013	4	2013
Deliveries: 27X Fleet Release	4	2016	4	2016
Deliveries: 29X Fleet Release	2	2018	2	2018
Deliveries: H14 Fleet Release	4	2018	4	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	787.993	93.692	51.304	34.964	-	34.964	35.819	24.502	25.068	25.349	Continuing	Continuing
0556: *EW Counter Response*	389.531	19.756	19.728	19.739	-	19.739	20.213	20.126	20.639	20.948	Continuing	Continuing
1742.: *EW Technical Development and T&E*	25.318	1.739	1.702	1.352	-	1.352	1.652	1.642	1.665	1.596	Continuing	Continuing
2175: *Tactical Air Electronic Warfare*	373.144	60.268	29.874	13.873	-	13.873	13.954	2.734	2.764	2.805	Continuing	Continuing
3327: *MAGTF EW Aviation Development*	0.000	11.929	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	11.929
MDAP/MAIS Code(s): 418												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program element includes development of Electronic Warfare (EW) systems for the United States Navy (USN), United States Marine Corps (USMC), and United States Army tactical aircraft, USMC helicopters, surface combatants, data link vulnerability assessments, precision targeting, USN and USMC radio frequency jammers, and development and testing of electronic warfare devices for emerging threats and emergency contingencies.

This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	95.018	51.304	35.988	-	35.988
Current President's Budget	93.692	51.304	34.964	-	34.964
Total Adjustments	-1.326	0.000	-1.024	-	-1.024
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.422	0.000			
• SBIR/STTR Transfer	-1.748	0.000			
• Program Adjustments	0.000	0.000	-0.370	-	-0.370
• Rate/Misc Adjustments	0.000	0.000	-0.654	-	-0.654

Change Summary Explanation

Technical:
Project Unit 0556 / EW COUNTER RESPONSE: Not Applicable
Project Unit 1742 / EW TECHNICAL DEVELOPMENT & T&E: Not Applicable
Project Unit 2175 / TACTICAL AIR ELECTRONIC WARFARE (EW): Not Applicable
Project Unit 3327 / Marine Air Ground Task Force (MAGTF) EW AVIATION DEVELOPMENT: Not Applicable

Schedule:
Project Unit 0556 / EW COUNTER RESPONSE: Availability of test aircraft caused Developmental Testing and Fleet Release of ICAP III Block 7 to shift to the right.
Project Unit 1742 / EW TECHNICAL DEVELOPMENT & T&E: Not Applicable
Project 2175 / TACTICAL AIR EW: Integrated Defensive Electronic Countermeasure Block 2 (IB-2): Not Applicable
IDECM Block 3 (IB-3): Not Applicable
IDECM Block 4 (IB-4): Not Applicable
ALQ-214 Software Improvement: Not Applicable
Project Unit 3327 / MAGTF EW AVIATION DEVELOPMENT: Not Applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 0556: *EW Counter Response*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0556: *EW Counter Response*	389.531	19.756	19.728	19.739	-	19.739	20.213	20.126	20.639	20.948	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project develops upgrades to combat the increasingly complex and dense Electronic Warfare (EW) threat environment. Required improvements in Airborne Electronic Attack (AEA) will achieve application of state-of-the-art signal exploitation, processing, display techniques, improved tactics, and jamming capabilities against EW threats.

Efforts include continued development of Force Protection/Overseas Contingency Operations (classified discussion available upon request) Navigation and Information Operations applications and enhanced communications jamming. Efforts also include risk reduction activities to support the upgrade of the ALQ-99 low band capabilities to include technology studies, breadboard/demonstrator development, and teseting in laboratory and relevant environments. The efforts under this project provide for electronic countermeasure responses to advanced threat weapon systems and C3 networks that are expanding in density and technical complexity. This project funds the continued development and integration of all EW and Electronic Attack systems for the US Navy electronic attack aircraft including improvements within precision Direction of Arrival, geo-location, Specific Emitter Identification, Auto-Electronic Support Measures, and selective reactive jamming.

The EA-6B Improved Capability (ICAP) III test aircraft will continue to serve as a test platform during government test and evaluation of Multi Functional Information Distribution Systems/Link-16, Low Band Transmitter, and other EW improvements. A requirement exists to allow the EA-6B ICAP III to participate in various coordinated targeting scenarios such as Network Centric Warfare, Force Net, Improved Suppression of Enemy Air Defenses/Destruction of Enemy Air Defenses, and other strategic and theatre-based DOD networks and strategies. Likewise, the ICAP III system shall be matured to enable the fusion and correlation of both organic and non-organic threat information to improve present sensor and targeting information to the theatre commander via coordinated efforts between other airborne, ground and ship-based operations. A method of implementing this requirement is to include the EA-6B on the Link-16 EW Network. Incorporation of the Link-16 message set into the EA-6B and participation of the ICAP III within the Network Centric Warfare arena improves the Strike Group Commander's situational awareness. All efforts and system upgrades include the conversion of and transition from the Tactical EA-6B Mission Planning System to the Joint Mission Planning System, including development of EA-6B Unique Planning Modules.

Electronic Attack Jammer Techniques Optimization (JATO) and test support is required to address and counter new and evolving radar and communications threats in support of existing and emerging systems such as the EA-6B, EA-18G, and Next Jeneration Jammer (NGJ). JATO will continue to generate techniques, tactics, and procedures that will optimize the capabilities of existing weapon systems, and to assist in requirements definitions of emerging AEA systems.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 0556: *EW Counter Response*

The Airborne Electronic Attack Expendable provides an expanded war fighting capability, on an expendable host platform against EW threats including; Integrated Air Defenses, Command and Control Communications, and Datalinks through an open Electronic Attack Subsystem interface specification. This flexible system allows rapid technology insertion and threat set adaptability that will address AEA capability and sufficiency gaps.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: ICAP III UPDATE	5.159	4.459	4.504
Articles:	0	0	0
FY 2012 Accomplishments: Successful software development program for ICAP III Block 5. Achieved successful Developmental Testing and received approval via an Operational Test Readiness Review (OTRR) to enter Operational Test. Improved the system stability of the SW from 9 mean flight hours between operational mission failures (MFHBOMF) to more than 54 MFHBOMF. ***FY 2013 Plans:*** Continue development, integration, and enhancement of Link-16 and ALQ-218 Capabilities into ICAP III Aircraft as well as resolving OPEVAL and FOT&E related deficiencies via ICAP III Block releases. ***FY 2014 Plans:*** Continue development, integration, and enhancement of Link-16 J-28.2 Free Text Message Capability and ALQ-218 Capabilities into ICAP III Aircraft as well as resolving OPEVAL and FOT&E related deficiencies via ICAP III Block release.			
Title: MISSION PLANNING	3.149	2.350	2.405
Articles:	0	0	0
FY 2012 Accomplishments: Achieved successful initial software development and testing of the Mission Planning Environment with respect to upgrading the operating framework and transition from a Windows XP platform to a Windows 7 platform. New framework required to counter Microsoft Operating System obsolescence. ***FY 2013 Plans:*** Continue development of all elements of the mission planning environment including Unique Planning Components (UPC), EA-6B Tactical Information & Report Management System and Electronic Warfare Development System. Mission Planning Environment will continue development of an upgrade operating framework and transition from a Windows XP platform to a Windows 7 platform. New framework required to counter Microsoft Operating System obsolescence. ***FY 2014 Plans:*** Continue development of all elements of the mission planning environment including UPCs, EA-6B Tactical Information & Report Management System and Electronic Warfare Development System. Mission Planning Environment will continue development of			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 0556: *EW Counter Response*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
an upgrade operating framework and transition from a Windows XP platform to a Windows 7 platform. New framework required to counter Microsoft Operating System obsolescence.			
Title: LINK 16 MESSAGE SETS AND DATA LINKS	0.931	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: Continued development and testing of the Link-16 modification. These data link enhancements will enable the EA-6B ICAP III continued participation within Force Net and facilitate the Electronic Attack contributions to the greater situational awareness allowed by Network Centric Warfare efforts. *Beginning in FY13, LINK 16 Message Sets and Data Links will be funded under Program Element 0604376M Project Unit 3327, MAGTF EW Aviation Development, as EA-6B Multifunctional Information Distribution Systems Block Upgrade.			
Title: JAMMER TECHNIQUES OPTIMIZATION (JATO)	10.182	11.033	10.994
Articles:	0	0	0
FY 2012 Accomplishments: Continued engineering development and test support required to address new and evolving radar/communications threats in support of existing and emerging systems such as the EA-6B, EA-18G, and Next Generation Jammer. Jammer Techniques Optimization (JATO) will continue to generate techniques, tactics, and procedures to optimize the capabilities of ALQ-99, USQ-113, ALQ-218, ALQ-227, ALQ-231, ALE-43, and Airborne Electronic Attack Expendable (AEAE) systems, and to assist in requirements definitions of emerging Airborne Electronic Attack (AEA) systems. JATO continues to lead efforts in support of Overseas Contingency Operation and Force Protection issues. (Classified discussion available upon request.) ***FY 2013 Plans:*** Provide engineering development and test support required to address new and evolving radar/communications threats in support of existing and emerging systems such as the EA-6B, EA-18G, and Next Generation Jammer. Jammer Techniques Optimization (JATO) will continue to generate techniques, tactics, and procedures to optimize the capabilities of ALQ-99, USQ-113, ALQ-218, ALQ-227, ALQ-231, ALE-43, and Airborne Electronic Attack Expendable (AEAE) systems, and to assist in requirements definitions of emerging Airborne Electronic Attack (AEA) systems. JATO continues to lead efforts in support of Overseas Contingency Operation and Force Protection issues. (Classified discussion available upon request.) ***FY 2014 Plans:*** Continue engineering development and test support required to address new and evolving radar/communications threats in support of existing and emerging systems such as the EA-6B, EA-18G, and Next Generation Jammer. Jammer Techniques Optimization (JATO) will continue to generate techniques, tactics, and procedures to optimize the capabilities of ALQ-99,			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 0556: *EW Counter Response*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
USQ-113, ALQ-218, ALQ-227, ALQ-231, ALE-43, and Airborne Electronic Attack Expendable (AEAE) systems, and to assist in requirements definitions of emerging Airborne Electronic Attack (AEA) systems. JATO continues to lead efforts in support of Overseas Contingency Operation and Force Protection issues. (Classified discussion available upon request.)			
Title: Airborne Electronic Attack Expendable (AEAE)	0.335	1.886	1.836
Articles:	0	0	0
FY 2012 Accomplishments: The AEAE project continued risk reduction efforts including scope development, CONOP refinement, engineering analysis, and data gathering on the ADM-160 Miniature Air Launched Decoy for F/A-18 E/F carriage. Other efforts included threat analysis and capability improvements for the Electronic Attack System payload. Conducted threat effectiveness review for Area of Regard defined threat sets utilizing fleet operator inputs. Project also continued to refine the maintenance concept and requirements for training, planning, and supportability.			
FY 2013 Plans: Develop Instrumented Measurement Vehicles for carrier suitability and airborne flight test and evaluation. Characterize vibration and shock forces associated with F/A-18EF carrier catapult take-offs and arrested landings. Develop accurate mathematical models for wind tunnel simulation and test. Perform wind tunnel safe-separation and transition-to-flight tests for vehicle risk analysis and risk mitigation. Develop F/A-18EF Airborne Electronic Attack Expendable (AEAE) Unique Planning Component for integration into the F/A-18EF Joint Mission Planning System Mission Planning Environment and H12 Software Configuration Set. Develop and evaluate Electronic Warfare payloads for integration into AEAE platform. Integrate standard payload interface into the vehicle baseline and develop documentation in support of the Joint Capabilities Integration and Development System process to include a Capabilities Development Document.			
FY 2014 Plans: Continue development of Instrumented Measurement Vehicles for carrier suitability and airborne flight test and evaluation. Characterize vibration and shock forces associated with F/A-18EF carrier catapult take-offs and arrested landings. Develop accurate mathematical models for wind tunnel simulation and test. Perform wind tunnel safe-separation and transition-to-flight tests for vehicle risk analysis and risk mitigation. Develop F/A-18EF Airborne Electronic Attack Expendable (AEAE) Unique Planning Component for integration into the F/A-18EF Joint Mission Planning System Mission Planning Environment and H12 Software Configuration Set. Develop and evaluate Electronic Warfare payloads for integration into AEAE platform. Integrate standard payload interface into the vehicle baseline and develop documentation in support of the Joint Capabilities Integration and Development System process to include a Capabilities Development Document.			
Accomplishments/Planned Programs Subtotals	19.756	19.728	19.739

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 0556: *EW Counter Response*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/05110: *EA-6 Series*	22.529	30.062	18.577		18.577	14.097	10.054	6.390	7.564	Continuing	Continuing
• APN/05130: *AEA Systems*	82.365	49.999	48.502		48.502	59.590	43.591	41.855	42.532	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Improved Capability (ICAP) III contract, an Engineering Manufacturing Development Cost Plus Incentive Fee/Award Fee basic contract with two Fixed Price Incentive production options, was awarded to a Northrop Grumman team in March 1998 following Milestone II after full and open competition. The contract was changed to a Cost Plus Award Fee contract in FY 1999. Low Rate Initial Production contract award was completed in FY 2003. A Milestone III Navy Program Decision Meeting was held on 23 September 2005. The Acquisition Decision Memorandum was signed by Assistant Secretary of the Navy for Research Development Acquisition on 21 November 2005. A Firm Fixed Price Full Rate Production (FRP) contract for Lot 2, 4 ALQ-218 systems, was awarded in March 2006. The FRP Lot 3 contract for 7 ALQ-218 systems was awarded 11 April 2008. The FRP Lot 4 contract for 9 ALQ-218 systems was awarded in August 2008.

E. Performance Metrics

1. Successful completion in the development of ICAP III Block 6 software for the Operational Flight Plan (OFP).
2. Successful completion of ICAP III Block 6 development and testing.
3. Jammer Techniques Optimization development counters enemy radar systems and communcation systems to provide techniques to protect allied forces.
4. Airborne Electronic Attack Expendable continues risk reduction and system development.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 0556: *EW Counter Response*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HDW Develop - ICAP III	C/FFP	Various:Various	260.171	0.533	Dec 2011	0.500	Dec 2012	0.500	Dec 2013	-		0.500	Continuing	Continuing	Continuing
Studies & Analysis (Non FFRDC)	C/FFP	Various:Various	1.043	0.000		0.000		0.000		-		0.000	0.000	1.043	1.043
Systems Engineering NR	WR	Naval Research Lab:Maryland	4.333	0.446	Dec 2011	0.409	Dec 2012	1.200	Dec 2013	-		1.200	Continuing	Continuing	Continuing
Systems Engineering NAWCAD	WR	NAWCAD:Patuxent River, MD	17.729	2.294	Nov 2011	2.443	Nov 2012	2.477	Nov 2013	-		2.477	Continuing	Continuing	Continuing
Systems Eng/BLK Update	WR	NAWCWD:Point Mugu, CA	53.504	5.455	Nov 2011	6.126	Nov 2012	7.547	Nov 2013	-		7.547	Continuing	Continuing	Continuing
Systems Engineering NSWC	WR	NSWC Det:Crane, IN	8.258	0.755	Dec 2011	0.718	Dec 2012	1.165	Dec 2013	-		1.165	Continuing	Continuing	Continuing
Systems Engineering VAR	WR	Various:Various	12.775	1.112	Dec 2011	1.075	Dec 2012	0.456	Dec 2013	-		0.456	Continuing	Continuing	Continuing
		Subtotal	357.813	10.595		11.271		13.345		0.000		13.345			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support - JATO	SS/FP	Johns Hopkins Unv:Maryland	20.642	4.035	Dec 2011	3.993	Dec 2012	2.719	Dec 2013	-		2.719	Continuing	Continuing	Continuing
Eng & Tech Srvc (Non FFRDC)	Various	Various:Various	8.472	4.567	Dec 2011	3.979	Dec 2012	3.400	Dec 2013	-		3.400	Continuing	Continuing	Continuing
DFCS Installs	Various	Various:Various	0.559	0.000		0.000		0.000		-		0.000	0.000	0.559	0.559
ILS Pubs - ICAP III	WR	FRC:Jacksonville, FL	1.273	0.424	Dec 2011	0.387	Dec 2012	0.175	Dec 2013	-		0.175	Continuing	Continuing	Continuing
		Subtotal	30.946	9.026		8.359		6.294		0.000		6.294			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 0556: *EW Counter Response*	

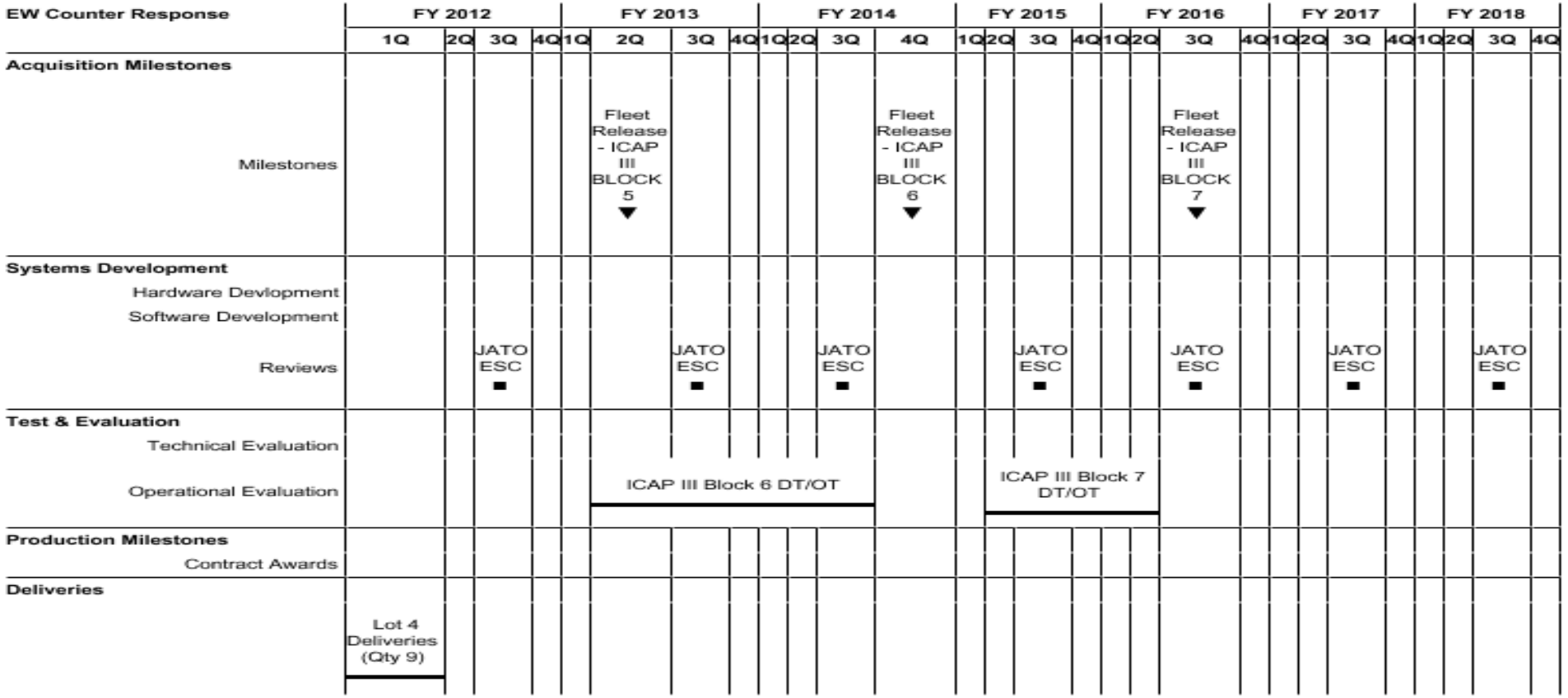
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	Various:Various	0.772	0.135	Dec 2011	0.098	Dec 2012	0.100	Dec 2013	-		0.100	Continuing	Continuing	Continuing
		Subtotal	0.772	0.135		0.098		0.100		0.000		0.100			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	389.531	19.756		19.728		19.739		0.000		19.739			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 0556: *EW Counter Response*



2014PB - 0604270N - 0556

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604270N: *Electronic Warfare (EW) Dev*	**PROJECT** 0556: *EW Counter Response*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
EW Counter Response				
Acquisition Milestones: Milestones: Fleet Release - ICAP III BLOCK 5	2	2013	2	2013
Acquisition Milestones: Milestones: Fleet Release - ICAP III BLOCK 6	4	2014	4	2014
Acquisition Milestones: Milestones: Fleet Release - ICAP III BLOCK 7	3	2016	3	2016
Systems Development: Reviews: JATO Executive Steering Committee 2012	3	2012	3	2012
Systems Development: Reviews: JATO Executive Steering Committee 2013	3	2013	3	2013
Systems Development: Reviews: JATO Executive Steering Committee 2014	3	2014	3	2014
Systems Development: Reviews: JATO Executive Steering Committee 2015	3	2015	3	2015
Systems Development: Reviews: JATO Executive Steering Committee 2016	3	2016	3	2016
Systems Development: Reviews: JATO Executive Steering Committee 2017	3	2017	3	2017
Systems Development: Reviews: JATO Executive Steering Committee 2018	3	2018	3	2018
Test & Evaluation: Operational Evaluation: ICAP III Block 6 DT/OT	2	2013	3	2014
Test & Evaluation: Operational Evaluation: ICAP III Block 7 DT/OT	2	2015	2	2016
Deliveries: ICAP III - Lot 4 FRP Deliveries (Qty 9)	1	2012	1	2012

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 1742.: *EW Technical Development and T&E*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1742.: *EW Technical Development and T&E*	25.318	1.739	1.702	1.352	-	1.352	1.652	1.642	1.665	1.596	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program element includes development of Electronic Warfare (EW) systems for the United States Navy (USN), United States Marine Corps (USMC), and United States Army tactical aircraft, USMC helicopters, surface combatants, data link vulnerability assessments, precision targeting, USN and USMC radio frequency jammers, and development and testing of electronic warfare devices for emerging threats and emergency contingencies.

This project funds efforts that focus on the quick reaction prototyping of tactical information and electronic warfare systems. This program directly addresses various Fleet requirements across multiple platforms (airborne, surface and subsurface), airborne and surface cryptologic operational requirements documents and the joint oversight council missions needs statement to research, assess, and develop information warfare and electronic warfare systems and capabilities. These systems/ capabilities provide information dominance to friendly forces during conflict, which is necessary for successful mission accomplishment.
Project Unit 1742 EW Technical Development and Test and Evaluation (T&E) funds efforts that focus on the quick reaction prototyping of tactical information and electronic warfare systems. This program directly addresses various fleet requirements across multiple platforms (airborne, surface and subsurface), airborne and surface crypotologic operational requirements documents and the joint oversight council missions needs statement to research, assess, and develop information warfare and electronic warfare systems and capabilities. These systems/capabilities provide information dominance to friendly forces during conflict, which is necessary for successful mission accomplishment.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Electronic Warfare Technical Development Studies and Test & Evaluation	0.000	0.000	1.352
Articles:			0
Description: This project funds efforts that focus on the quick reaction prototyping of tactical information and electronic warfare systems.			
FY 2014 Plans: Continue studies and vulnerability analysis on emerging/changing threats/targets for EW programs.			
Title: EW Technical Development Studies & Analysis	1.539	1.500	0.000
Articles:	0	0	

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 1742.: *EW Technical Development and T&E*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Continued studies and vulnerability analysis on emerging/changing threats/targets for EW programs. ***FY 2013 Plans:*** Continue studies and vulnerability analysis on emerging/changing threats/targets for EW programs.			
Title: EW Technical Development/Program Management	0.200	0.202	0.000
Articles:	0	0	
FY 2012 Accomplishments: Continued funding necessary travel expenses and training to support the Research & Development projects. ***FY 2013 Plans:*** Continue funding necessary travel expenses and training to support the Research & Development projects.			
Accomplishments/Planned Programs Subtotals	1.739	1.702	1.352

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

BSO 60: Development of classified prototypes and special capabilities.
The Navy Cyber Warfare Development Group (NCWDG) (formerly known as the Navy Information Operations Command (NIOC) Suitland) is granted streamlined acquisition authority for the development of classified prototypes and special capabilities under the DASN(C4I).

E. Performance Metrics

BSO 60: Research, assess and develop EW/IW capabilities.
The NCWDG serves as the Program Management Office of the EW Technical Development and Information Warfare (IW) program. As such, NCWDG is tasked as the Navy's principal technical agent to research, assess, and develop EW/IW capabilities.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 1742.: *EW Technical Development and T&E*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/CPFF	Classified:Various	3.604	0.000		0.000		0.000		-		0.000	0.000	3.604	
Aircraft Integration	WR	NAWC CL:China Lake, CA	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	
		Subtotal	5.204	0.000		0.000		0.000		0.000		0.000	0.000	5.204	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies and Analysis	Various	Classified:Various	0.000	0.000		0.000		1.140	Oct 2013	-		1.140	Continuing	Continuing	Continuing
Development Support	C/CPFF	Classified:Various	2.987	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	2.987	
Software Development	C/CPFF	Classified:Various	3.944	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	3.944	
Studies & Analyses	Various	Classified:Various	7.974	1.539	Nov 2011	1.500	Nov 2012	0.000		-		0.000	0.000	11.013	
		Subtotal	14.905	1.539		1.500		1.140		0.000		1.140			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NRL:Washington, DC	2.890	0.000		0.000		0.000		-		0.000	0.000	2.890	
		Subtotal	2.890	0.000		0.000		0.000		0.000		0.000	0.000	2.890	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Personnel	Various	Classified:Various	0.000	0.000		0.000		0.100	Oct 2013	-		0.100	0.000	0.100	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 1742.: *EW Technical Development and T&E*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	NCWDG:Washington, DC	0.000	0.000		0.000		0.112	Oct 2013	-		0.112	0.000	0.112	
Program Management	Various	Classified:Various	0.905	0.085	Oct 2011	0.084	Oct 2012	0.000		-		0.000	0.000	1.074	
Travel	WR	NCWDG:Washington DC	1.388	0.115	Oct 2011	0.118	Oct 2012	0.000		-		0.000	0.000	1.621	
Acquisition Workforce Fund - 2009	Various	Various:Various	0.026	0.000		0.000		0.000		-		0.000	0.000	0.026	
		Subtotal	2.319	0.200		0.202		0.212		0.000		0.212	0.000	2.933	

Remarks

Provides for official travel and training in direct support of Research & Development projects.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	25.318	1.739		1.702		1.352		0.000		1.352			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 1742.: *EW Technical Development and T&E*

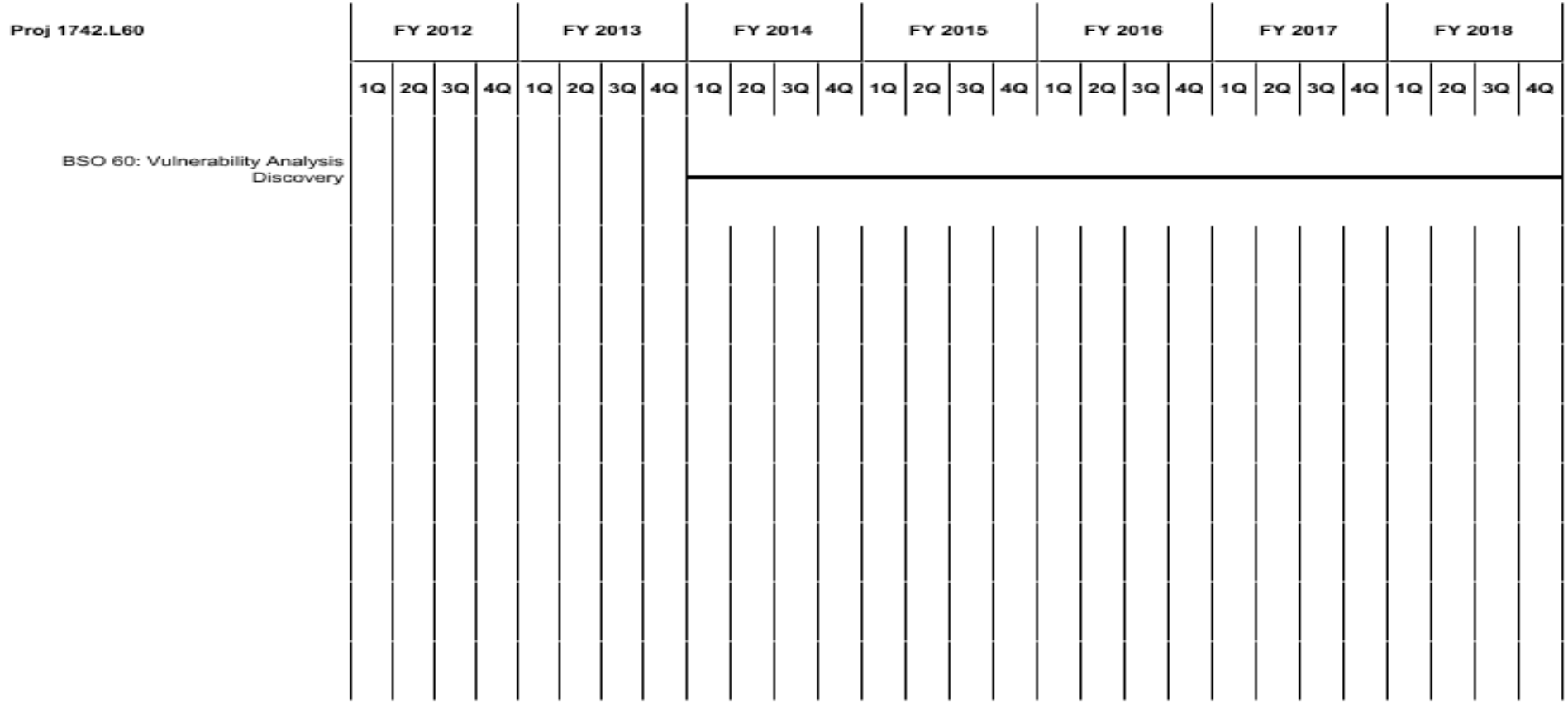


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 1742.: *EW Technical Development and T&E*

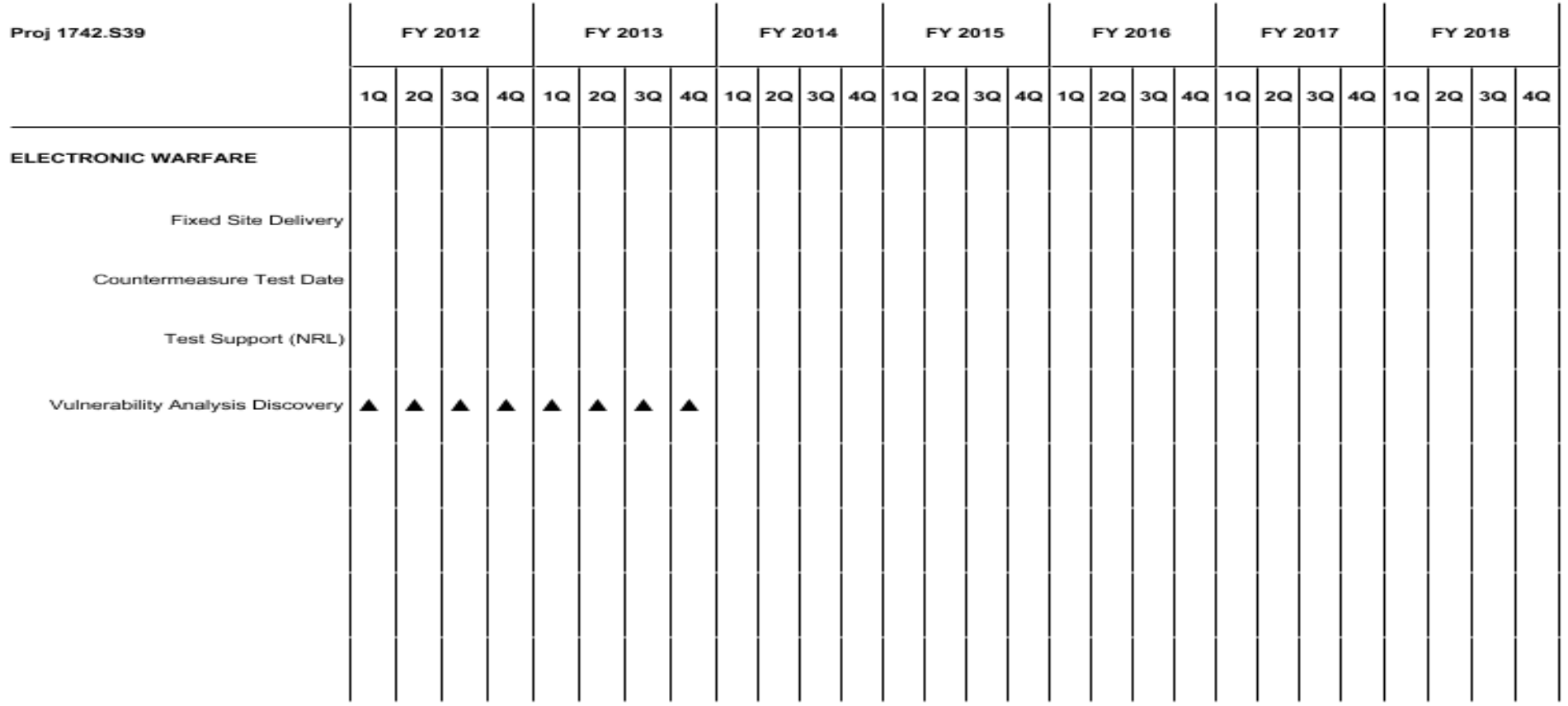


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604270N: *Electronic Warfare (EW) Dev*	**PROJECT** 1742.: *EW Technical Development and T&E*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1742.L60				
BSO 60: Vulnerability Analysis Discovery: Vulnerability Analysis Discovery	1	2014	4	2018
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 1 2012	1	2012	1	2012
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 2 2012	2	2012	2	2012
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 3 2012	3	2012	3	2012
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 4 2012	4	2012	4	2012
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 1 2013	1	2013	1	2013
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 2 2013	2	2013	2	2013
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 3 2013	3	2013	3	2013
ELECTRONIC WARFARE: Vulnerability Analysis Discovery: VAD 4 2013	4	2013	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2175: *Tactical Air Electronic Warfare*	373.144	60.268	29.874	13.873	-	13.873	13.954	2.734	2.764	2.805	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Integrated Defensive Electronic Countermeasures (IDECM) Block 3 (IB-3) introduced the new Fiber Optic Towed Decoy (FOTD) capability to the IDECM Block 2 Electronic Warfare (EW) Suite as a replacement for the ALE-50 decoy. The FOTD, when integrated with the rest of the F/A-18E/F EW suite (i.e., ALQ-214, ALR-67(V)3, ALE-47 and ALE-50), the associated cockpit controls, displays and other avionics significantly improves the survivability of the host aircraft in a Radio Frequency threat environment. IB-3 MS III (Full Rate Production Decision) was approved in the 4th Qtr FY2011. IB-3 Initial Operational Capability (IOC) achieved 4th Qtr FY2011.

IDECM Block 4 (IB-4) is an Engineering Change Proposal (ECP) to the ALQ-214 to render it suitable for operation on F/A-18C/D aircraft (replacing the ALQ-126B and significantly improving F/A-18C/D survivability) while retaining all IDECM suite functionality when installed on F/A-18E/F aircraft. The IB-4 acquisition and contract strategy includes development of the Common On-Board-Jammer for the F/A-18 C/D/E/F aircraft through sole source contract awards for modifications to the ALQ-214. IB-4, ALQ-214 ECP, efforts include hardware and software design, development and test, delivery of 18 Engineering Development Models, integration and testing on the host aircraft. The F/A-18C/D EW Suite includes the ALR-67(V)2 Radar Warning Receiver (RWR), the ALE-47 Countermeasures Dispensing Set (CMDS), the mission computer and other avionics. In addition to performing the RWR function, the ALR-67(V)2 is the EW Bus Controller. The EW Bus is the primary interface between the EW Systems (Jammer, RWR, and CMDS). The mission computer is the Avionics Bus Controller, the interface between the EW suite and other avionics.

ALQ-214 Software Improvement will provide the ALQ-214 with Digital Radio Frequency Memory deny-delay, technique capability significantly improving F/A-18C/D/E/F survivability. Acquisition and contract strategy includes development, integration and test of the ALQ-214 software improvements through sole-source contract award. Minor modification to other avionics are required in order to integrate this new capability. These other avionics may include, but are not limited to, the ALR-67(V)2, ALR-67(V)3, ALE-47, ALE-50, ALE-55, Mission Computer and Fire Control Radar.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Tactical Air EW	60.268	29.874	13.873
Articles:	0	0	0
FY 2012 Accomplishments: The Integrated Defensive Electronic Countermeasures (IDECM) Block 4, ALQ-214 Engineering Change Proposal (ECP) engineering effort continued into FY2012. IDECM Block 4 In-Process Review (IPR)3 was conducted 3rd quarter FY2012. The			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
ALQ-214 Software Improvement contract awarded 2nd quarter FY2012 and included development, integration and test of the ALQ-214 with Digital Radio Frequency Memory deny-delay, technique capability. Successfully completed Software Improvement Design Review 1 in 3rd quarter FY 2012. ***FY 2013 Plans:*** The IDECM Block 4, ALQ-214 ECP engineering effort will conclude in FY2013. Flight testing for the ALQ-214 ECP will resume. The ALQ-214 Software Improvement contract will continue into FY2013 and will include engineering and logistics support. ***FY 2014 Plans:*** The IDECM Block 4 In-Process Review (IBR) planned 2nd Qtr FY 2014. The ALQ-214 Software Improvement Contract will continue into FY2014 and will include flight testing.			
Accomplishments/Planned Programs Subtotals	60.268	29.874	13.873

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0576 2: *Common On-Board Jammer*	40.050	57.067	83.083		83.083	102.055	132.981	51.417	52.261	47.850	566.764
• PANMC/0182: *Airborne Expendable CM*	20.766	20.930	21.076		21.076	22.066	22.428	22.868	25.502	Continuing	Continuing

Remarks

D. Acquisition Strategy

IDECM Block 3 (IB-3) sole source award of Full Rate Production (FRP) in FY 2013. Annual IB-3 production contracts will continue through FY 2046. The ALQ-214 ECP contract effort was awarded sole source to ITT/EXELIS in December 2009. The contract is planned to continue through FY 2013. ALQ-214 Software Improvement acquisition awarded to ITT/EXELIS in FY 2012. ITT is the original developer/manufacturer and current sustainer of the ALQ-214.

E. Performance Metrics

IDECM Block 3: Successfully award FRP 4 Contract in 1st Qtr FY 2014.

IDECM Block 4: Successfully conduct In-Process Review 4 (Production Cut-In 1) in 2nd Qtr FY 2013. Successfully award FRP 10 Contract in 2nd Qtr FY 2013.

ALQ-214 Software Improvement: Successfully achieve Initial Operational Capability (IOC) in 4th Qtr FY 2015

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Aircraft Integration -IDECM Boeing	Various	Various:Various	7.269	0.000		1.000	Mar 2013	1.000	Mar 2014	-		1.000	1.000	10.269	15.169
Primary Hdw Dev - IDECM ITT	SS/FFP	ITT:Clifton, NJ	91.243	20.689	Dec 2011	2.714	Mar 2013	0.000		-		0.000	0.000	114.646	114.646
Systems Eng - IDECM	SS/CPFF	Various:Various	62.783	0.189	Mar 2012	7.724	Mar 2013	3.251	Mar 2014	-		3.251	3.710	77.657	77.657
Risk Reduction ALQ-214 SW Imp	SS/CPFF	ITT:Clifton, NJ	3.427	0.000		0.000		0.000		-		0.000	0.000	3.427	3.427
Funding no longer in the line	Various	Various:Various	0.000	4.900	Feb 2013	0.000		0.000		-		0.000	0.000	4.900	
Prior Year Prod Dev costs no longer funded in FYDP	Various	Various:Various	115.623	0.000		0.000		0.000		-		0.000	0.000	115.623	
		Subtotal	280.345	25.778		11.438		4.251		0.000		4.251	4.710	326.522	

Remarks

Under Product Development, line 1 FY 2012 costs include $4.9 Million of funding that was reprogrammed to PE0604512N PU2232 in 1st Qtr of 2013 but still showing in our controls.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Log Supt - IDECM	WR	FRC-SE:Jacksonville, FL	0.413	0.085	Dec 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Software Dev-ALQ-214 SW Dev	SS/CPFF	ITT:Clifton, NJ	0.000	17.395	Feb 2012	1.882	Jun 2013	0.402	Dec 2013	-		0.402	0.295	19.974	19.974
Software Dev-ALQ-214 SW Dev	SS/CPFF	Various:Various	0.000	0.000		1.230	Apr 2013	0.000		-		0.000	0.000	1.230	1.230
Prior Year Support costs on longer funded in FYDP	Various	Various:Various	8.427	0.000		0.000		0.000		-		0.000	0.000	8.427	
		Subtotal	8.840	17.480		3.112		0.402		0.000		0.402			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval Supt ALQ-214 SW Imp	WR	Various:Various	0.000	0.000		0.000		1.594	Dec 2013	-		1.594	0.000	1.594	
Oper Test & Eval ALQ-214 SW Imp	WR	Various:Various	0.000	0.000		0.000		1.823	Dec 2013	-		1.823	4.553	6.376	
Flight Test - IDECM	WR	Various:Various	1.278	2.842	Dec 2011	0.805	Dec 2012	0.000		-		0.000	0.000	4.925	
Flight Test- IDECM	WR	NAWCWD:China Lake, CA	0.000	8.646	Dec 2011	4.488	Dec 2012	0.000		-		0.000	0.000	13.134	
Prior Year T&E costs no longer funded in FYDP	Various	Various:Various	7.186	0.000		0.000		0.000		-		0.000	0.000	7.186	
		Subtotal	8.464	11.488		5.293		3.417		0.000		3.417	4.553	33.215	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Mgt & Prof Supt Srvc-IDECM (Non-FFRDC)	SS/CPFF	Amelex:California, MD	0.404	0.405	Dec 2011	0.451	Dec 2012	0.395	Dec 2013	-		0.395	0.143	1.798	1.798
Travel	Allot	NAWCAD:Pax River, MD	0.435	0.148	Oct 2011	0.105	Oct 2012	0.095	Oct 2013	-		0.095	0.292	1.075	
Eng/Log Supt - IDECM NAWCAD	WR	NAWCAD:Pax River, MD	2.136	1.528	Dec 2011	2.101	Dec 2012	1.450	Dec 2013	-		1.450	5.657	12.872	
Eng/Log Supt - IDECM	WR	Various:Various	5.726	2.692	Dec 2011	5.708	Dec 2012	2.421	Dec 2013	-		2.421	4.867	21.414	
Eng & Tech Srvcs (Non-FFRDC) Pax	SS/CPFF	NAWCAD:Pax River, MD	0.000	0.000		0.709	Dec 2012	0.585	Dec 2013	-		0.585	0.000	1.294	1.294
Eng & Tech Srvcs (Non-FFRDC) NRL	SS/CPFF	NRL:NRL	0.479	0.250	Dec 2011	0.257	Dec 2012	0.265	Dec 2013	-		0.265	1.130	2.381	2.381
Eng & Tech Srvcs (Non-FFRDC)	SS/CPFF	COTF:Norfolk, VA	0.534	0.499	Dec 2011	0.700	Dec 2012	0.592	Dec 2013	-		0.592	0.610	2.935	2.935
Prior Year Mgmt costs no longer funded in FYDP	Various	Various:Various	65.781	0.000		0.000		0.000		-		0.000	0.000	65.781	
		Subtotal	75.495	5.522		10.031		5.803		0.000		5.803	12.699	109.550	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	373.144	60.268		29.874		13.873		0.000		13.873			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*

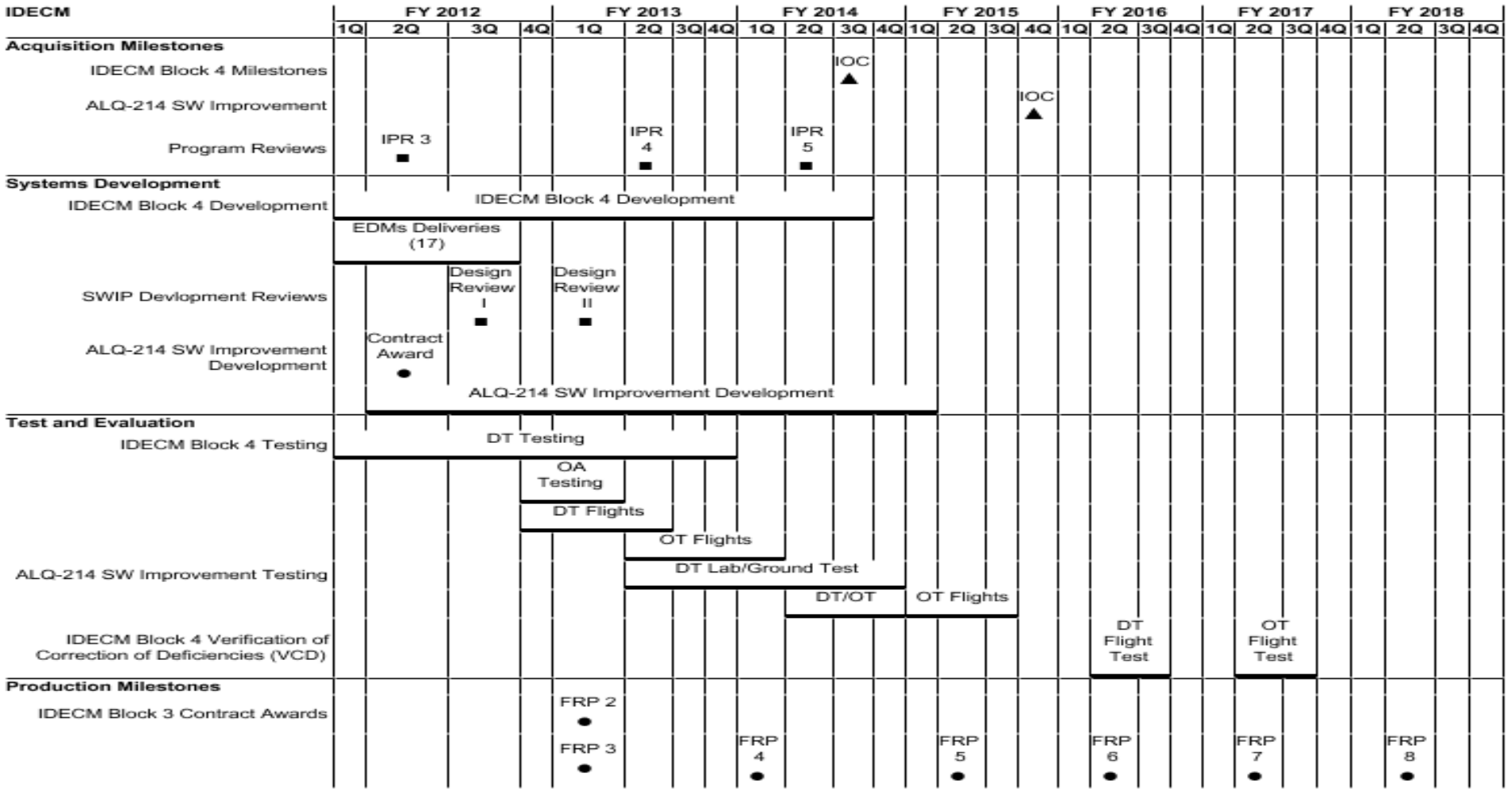
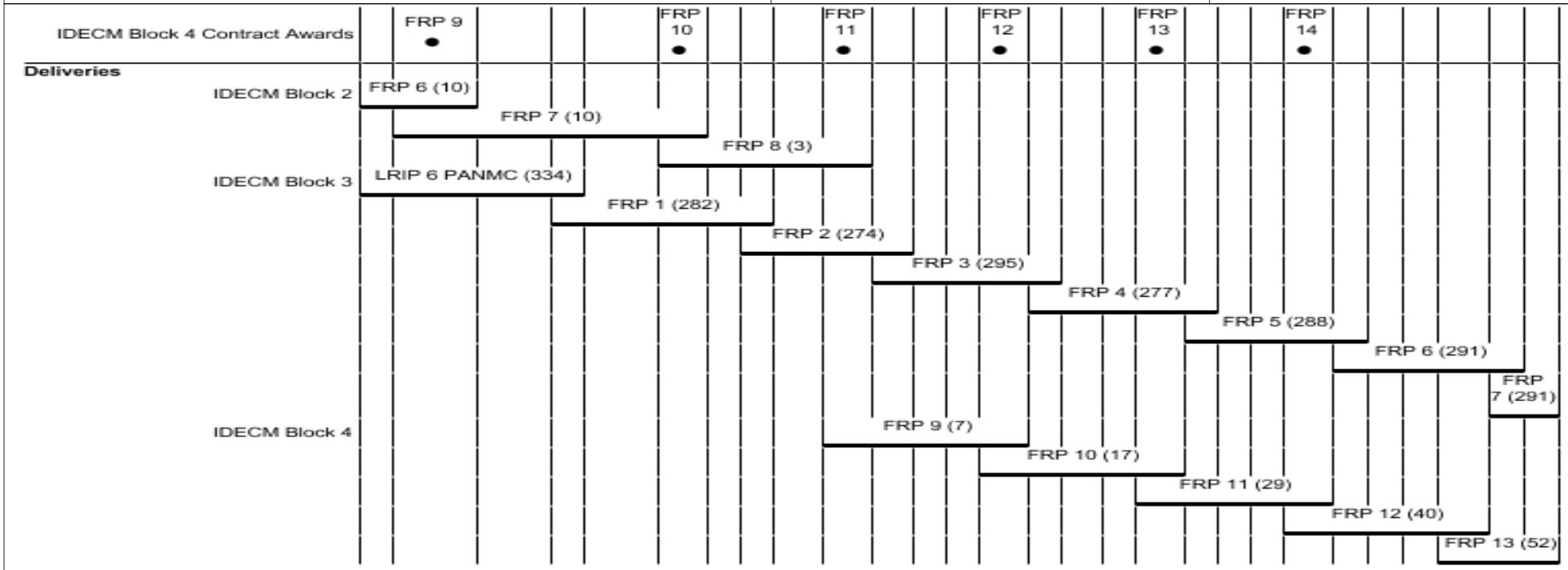


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*



2014PB - 0604270N - 2175 IDECM Block 4 is an ECP to Block 2

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
IDECM				
Acquisition Milestones: IDECM Block 4 Milestones: IDECM Block 4 IOC	3	2014	3	2014
Acquisition Milestones: ALQ-214 SW Improvement: ALQ-214 SW Improvement (IOC)	4	2015	4	2015
Acquisition Milestones: Program Reviews: IDECM Block 4 In-Process Review (IPR) 3	2	2012	2	2012
Acquisition Milestones: Program Reviews: IDECM Block 4 In-Process Review (IPR) 4	2	2013	2	2013
Acquisition Milestones: Program Reviews: IDECM Block 4 In-Process Review (IPR) 5	2	2014	2	2014
Systems Development: IDECM Block 4 Development: IDECM Block 4 Development	1	2012	3	2014
Systems Development: IDECM Block 4 Development: IDECM Block 4 EDM Deliveries (17)	1	2012	3	2012
Systems Development: SWIP Devlopment Reviews: ALQ-214 SW Improvement Development Design Review 1	3	2012	3	2012
Systems Development: SWIP Devlopment Reviews: ALQ-214 SW Improvement Development Design Review 2	1	2013	1	2013
Systems Development: ALQ-214 SW Improvement Development: ALQ-214 SW Improvement (Contract Award)	2	2012	2	2012
Systems Development: ALQ-214 SW Improvement Development: ALQ-214 SW Improvement Development	2	2012	1	2015
Test and Evaluation: IDECM Block 4 Testing: IDECM Block 4 Development Testing (DT)	1	2012	4	2013
Test and Evaluation: IDECM Block 4 Testing: IDECM Block 4 Operational Assessment (OA)	4	2012	1	2013
Test and Evaluation: IDECM Block 4 Testing: IDECM Block 4 Development Testing Flights	4	2012	2	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Test and Evaluation: IDECM Block 4 Testing: IDECM Block 4 Operational Testing Flights	2	2013	1	2014
Test and Evaluation: ALQ-214 SW Improvement Testing: ALQ-214 SW Improvement Development Testing (DT) Lab/Ground	2	2013	4	2014
Test and Evaluation: ALQ-214 SW Improvement Testing: ALQ-214 SW Improvement Development Testing(DT)/Operational Testing (OT) Flights	2	2014	4	2014
Test and Evaluation: ALQ-214 SW Improvement Testing: ALQ-214 SW Improvement Operational Testing (OT) Flights	1	2015	3	2015
Test and Evaluation: IDECM Block 4 Verification of Correction of Deficiencies (VCD): IDECM Block 4 Verification of Correction of Deficiencies DT (VCD)	2	2016	3	2016
Test and Evaluation: IDECM Block 4 Verification of Correction of Deficiencies (VCD): IDECM Block 4 Verification of Correction of Deficiencies OT(VCD)	2	2017	3	2017
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 2	1	2013	1	2013
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 3	1	2013	1	2013
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 4	1	2014	1	2014
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 5	2	2015	2	2015
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 6	2	2016	2	2016
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 7	2	2017	2	2017
Production Milestones: IDECM Block 3 Contract Awards: IDECM Block 3 Full Rate Production (FRP) 8	2	2018	2	2018
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 9	2	2012	2	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 2175: *Tactical Air Electronic Warfare*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 10	2	2013	2	2013
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 11	2	2014	2	2014
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 12	2	2015	2	2015
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 13	2	2016	2	2016
Production Milestones: IDECM Block 4 Contract Awards: IDECM Block 4 Full Rate Production (FRP) 14	2	2017	2	2017
Deliveries: IDECM Block 2: IDECM Block 2 FRP 6 Deliveries (10)	1	2012	2	2012
Deliveries: IDECM Block 2: IDECM Block 2 FRP 7 Deliveries (10)	2	2012	2	2013
Deliveries: IDECM Block 2: IDECM Block 2 FRP 8 Deliveries (3)	2	2013	2	2014
Deliveries: IDECM Block 3: IDECM Block 3 LRIP 6 Deliveries (334)	1	2012	4	2012
Deliveries: IDECM Block 3: IDECM Block 3 FRP 1 Deliveries (282)	4	2012	4	2013
Deliveries: IDECM Block 3: IDECM Block 3 FRP 2 Deliveries (274)	4	2013	3	2014
Deliveries: IDECM Block 3: IDECM Block 3 FRP 3 Deliveries (295)	3	2014	3	2015
Deliveries: IDECM Block 3: IDECM Block 3 FRP 4 Deliveries (277)	3	2015	3	2016
Deliveries: IDECM Block 3: IDECM Block 3 FRP 5 Deliveries (288)	3	2016	3	2017
Deliveries: IDECM Block 3: IDECM Block 3 FRP 6 Deliveries (291)	3	2017	3	2018
Deliveries: IDECM Block 3: IDECM Block 3 FRP 7 Deliveries (291)	3	2018	4	2018
Deliveries: IDECM Block 4: IDECM Block 4 FRP 9 Deliveries (7)	2	2014	2	2015
Deliveries: IDECM Block 4: IDECM Block 4 FRP 10 Deliveries (17)	2	2015	2	2016
Deliveries: IDECM Block 4: IDECM Block 4 FRP 11 Deliveries (29)	2	2016	2	2017
Deliveries: IDECM Block 4: IDECM Block 4 FRP 12 Deliveries (40)	2	2017	2	2018
Deliveries: IDECM Block 4: IDECM Block 4 FRP 13 Deliveries (52)	2	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 3327: *MAGTF EW Aviation Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3327: *MAGTF EW Aviation Development*	0.000	11.929	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	11.929
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project unit supports the United States Marine Corps (USMC) development of Marine Air Ground Task Force (MAGTF) Electronic Warfare (EW) and the various elements of its distributed System of Systems that support the Commandant of the Marine Corps' Strategy and Vision 2025 and Joint Vision 2025. The SoS will address MAGTF EW sufficiency gaps in the areas of Electronic Attack, Electronic Warfare Support, and Electronic Protection with a multitude of payloads designed for carriage on a variety of organic MAGTF air and ground assets. Payload development plans follow an adaptable, modular and open architecture philosophy to combat the increasing capability gap and enable future growth at a reduced operational and sustainment cost.

FY12 includes $5.600M OCO funding for Intrepid Tiger (v)1 (ALQ-231) and $6.329M baseline funding for MAGTF EW Software Reprogrammable Payload (SRP).

Prior to FY12, Intrepid Tiger II efforts were budgeted under PU 0556.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: MAGTF EW Software Reprogrammable Payload (SRP)	6.064	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: Initiated efforts to transition SRP and associated componenets; Collaborative EW/EW Battle Management, EW Services Architecture (formerly Collaborative On-line Reconnaissance Operationally Responsive Attack Link), and Intrepid Tiger II(v)2 from the Joint Capabilities Technology Demonstration into a viable capability.			
Title: Intrepid Tiger II (v)1 (ALQ-231)	5.865	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: OCO: This project continued to develop integration between Intrepid Tiger II(v)1 (ALQ-231) and USMC platforms including F/A-18, AV-8B, and the UAS. Initiated incremental capability improvements and maintenance of threat effectiveness to Area of			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 3327: *MAGTF EW Aviation Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Regard defined threat sets employs fleet operator and networked utility assessment inputs. The project fully established initial supportability and maintenance concepts.			
Accomplishments/Planned Programs Subtotals	11.929	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0587: *MAGTF EW for Aviation*	0.489	34.127	14.446		14.446	20.537	8.013	6.085	6.177	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project unit is part of USMC led efforts to ensure Marine Corps requirements are included in the budget process for the FYDP and beyond. These efforts include Software Reprogrammable Payload, Intrepid Tiger II(v)1 (ALQ-231), Intrepid Tiger II(v)2, Collaborative EW (Electronic Warfare)/EW Battle Management, EW Payload, and EW Service Architecture (formerly Collaborative On-line Reconnaissance Operationally Responsive Attack Link). These programs are the Marine Corps' initial steps to create systems to distribute EW capability across the battle space with the intent of replacing EA-6B capabilities for the Marine Air Ground Task Force by 2019.

E. Performance Metrics

Successful completion of Intrepid Tiger II(v)1 (ALQ-231) Engineering Development Model (EDM) Lot 1 Developmental Testing/Operational Testing.
Delivery of final EDM test articles prior to Full Operational Capability.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 3327: *MAGTF EW Aviation Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NAWC:Various	0.000	3.243	Nov 2011	0.000		0.000		-		0.000	0.000	3.243	
Systems Engineering	WR	NSWC:Various	0.000	0.200	Dec 2011	0.000		0.000		-		0.000	0.000	0.200	
Systems Engineering	WR	Naval Research Lab:Washington, DC	0.000	4.886	Dec 2011	0.000		0.000		-		0.000	0.000	4.886	
		Subtotal	0.000	8.329		0.000		0.000		0.000		0.000	0.000	8.329	

Remarks

Beginning in FY13, this program will be funded under Program Element 0604376M, Project Unit 3327.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Eng & Tech Srvc (Non-FFRDC)	Various	Various:Various	0.000	1.440	Dec 2011	0.000		0.000		-		0.000	0.000	1.440	
		Subtotal	0.000	1.440		0.000		0.000		0.000		0.000	0.000	1.440	

Remarks

Beginning in FY13, this program will be funded under Program Element 0604376M, Project Unit 3327.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing	WR	NAWCAD:Patuxent River, MD	0.000	1.372	Nov 2011	0.000		0.000		-		0.000	0.000	1.372	
Flight Testing	WR	NAWCWD:China Lake, CA	0.000	0.788	Nov 2011	0.000		0.000		-		0.000	0.000	0.788	
		Subtotal	0.000	2.160		0.000		0.000		0.000		0.000	0.000	2.160	

Remarks

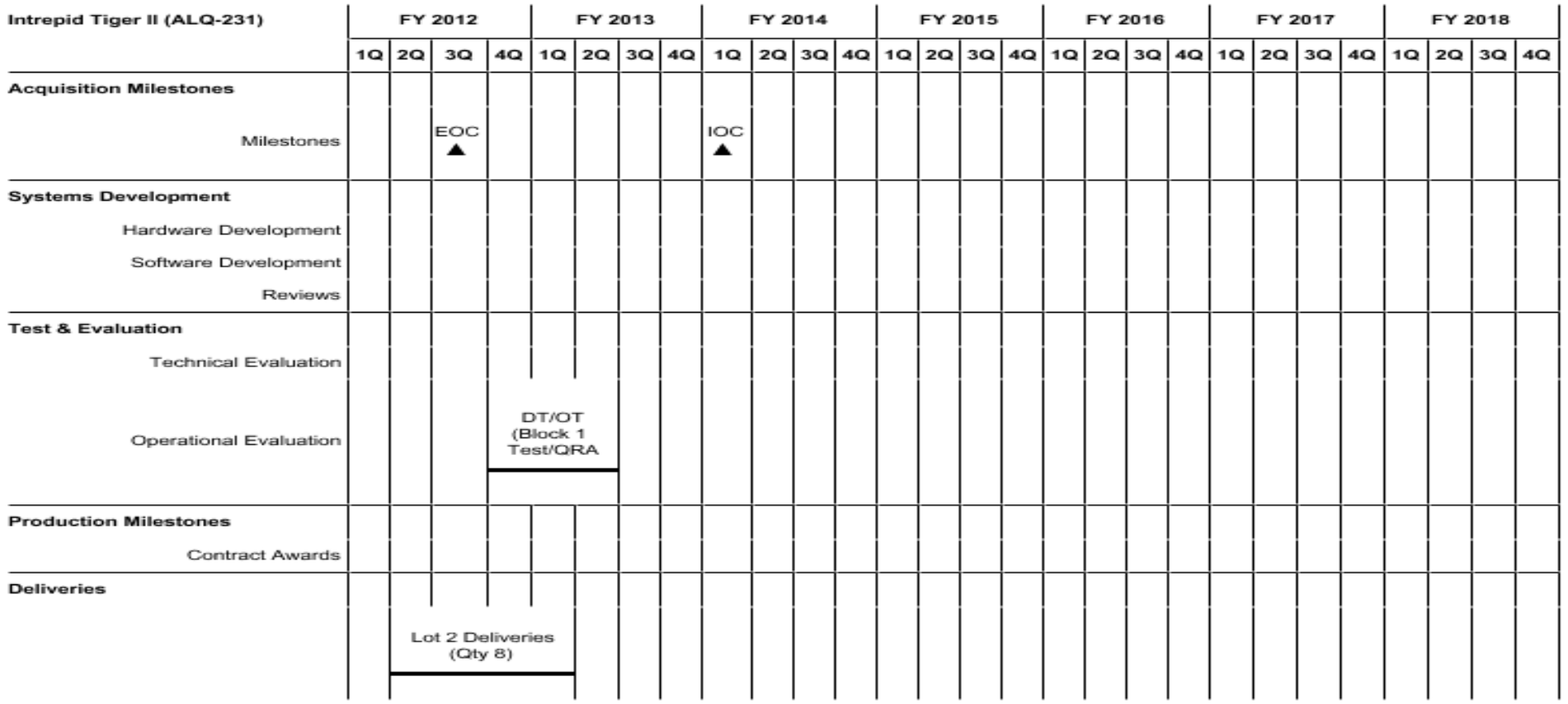
Beginning in FY13, this program will be funded under Program Element 0604376M, Project Unit 3327.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 3327: *MAGTF EW Aviation Development*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	11.929		0.000		0.000		0.000		0.000	0.000	11.929	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604270N: *Electronic Warfare (EW) Dev*	PROJECT 3327: *MAGTF EW Aviation Development*



2014PB - 0604270N - 3327

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604270N: *Electronic Warfare (EW) Dev*	**PROJECT** 3327: *MAGTF EW Aviation Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Intrepid Tiger II (ALQ-231)				
Acquisition Milestones: Milestones: Early Operational Capability (EOC)	3	2012	3	2012
Acquisition Milestones: Milestones: IOC	1	2014	1	2014
Test & Evaluation: Operational Evaluation: Block 1 Test/Quick Reaction Assessment (QRA)	4	2012	2	2013
Deliveries: Lot 2 Deliveries (Qty 8)	2	2012	1	2013
Deliveries: Lot 3 Deliveries (Qty 28)	2	2013	1	2014
Deliveries: Lot 4 Deliveries (Qty 21)	2	2014	1	2015

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604273N: *VH-71 Executive Helo Development*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	90.850	58.994	61.163	94.238	-	94.238	369.653	634.969	687.672	699.787	Continuing	Continuing
3300: *Presidential Helicopter VXX*	90.850	58.994	61.163	94.238	-	94.238	369.653	634.969	687.672	699.787	Continuing	Continuing
MDAP/MAIS Code(s): P429												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Marine Helicopter Squadron One (HMX-1) is required to provide safe and timely transportation for the President and Vice President of the United States, heads of state and others as directed by the White House Military Office. Currently two Type, Model, Series aircraft are used by HMX-1 for the Presidential support mission - the VH-3D and the VH-60N. The VXX program is the replacement helicopter for the VH-3D and VH-60N. An Acquisition Strategy is being established. Funding includes pre-Milestone (MS) B risk reduction activities, capability based assessments, Concept of Operations development, specification development, system concept development, threat analysis, will cost/should cost strategies, establishing affordability targets, and recommended cost control measures. Following a successful MS B decision and entrance into the Engineering and Manufacturing Development Phase, activities will focus on the integration of systems, production and qualification of test articles, demonstration of system integration, interoperability, safety and utility.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	60.751	61.163	94.537	-	94.537
Current President's Budget	58.994	61.163	94.238	-	94.238
Total Adjustments	-1.757	0.000	-0.299	-	-0.299
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.757	0.000			
• Program Adjustments	0.000	0.000	-0.116	-	-0.116
• Rate/Misc Adjustments	0.000	0.000	-0.183	-	-0.183

Change Summary Explanation

Technical: Not applicable.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604273N: *VH-71 Executive Helo Development*

Schedule: The VXX acquisition strategy and timelines has resulted in MS B moving to Q2 FY14 and this is reflected in the new exhibit.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604273N: *VH-71 Executive Helo Development*	PROJECT 3300: *Presidential Helicopter VXX*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3300: *Presidential Helicopter VXX*	90.850	58.994	61.163	94.238	-	94.238	369.653	634.969	687.672	699.787	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Marine Helicopter Squadron One (HMX-1) is required to provide safe and timely transportation for the President and Vice President of the United States, heads of state and others as directed by the White House Military Office. Currently two Type, Model, Series aircraft are used by HMX-1 for the Presidential support mission - the VH-3D and the VH-60N. The VXX will replace the VH-3D and VH-60N. The VXX Acquisition Strategy includes pre-Milestone (MS) B risk reduction activities, capability based assessments, Concept of Operations development, specification development, system concept development, threat analysis, will cost/should cost strategies, establishing affordability targets, and recommended cost control measures. Following a successful MS B decision and entrance into the Engineering and Manufacturing Development Phase, activities will focus on the integration of systems, production and qualification of test articles, demonstration of system integration, interoperability, safety and utility.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Program Management and Support	35.127	33.590	40.987
Articles:	0	0	0
FY 2012 Accomplishments: Continue the funded activities of the proposed material solutions, including: reducing technology risk, determining and maturing the appropriate set of technologies, and to demonstrate technology on prototypes.			
FY 2013 Plans: Prepare for the Engineering and Manufacturing Development Phase funded activities of the proposed material solutions, including: reducing technology risk, determining and maturing the appropriate set of technologies, and to demonstrate technology on prototypes.			
FY 2014 Plans: Continue preparations for the Engineering and Manufacturing Development (EMD) Phase including reducing technology risk, prototyping, and activities in support of MS B, EMD contract award and EMD contract execution.			
Title: Test and Evaluation	3.535	3.700	4.201
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604273N: *VH-71 Executive Helo Development*	PROJECT 3300: *Presidential Helicopter VXX*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Support VXX test and evaluation planning and documentation. ***FY 2013 Plans:*** Support VXX test and evaluation planning and documentation. ***FY 2014 Plans:*** Support of VXX DT/OT/LFT&E test and evaluation planning and documentation. Perform LFT&E events.			
Title: Product Development	20.332	23.873	49.050
Articles:	0	0	0
FY 2012 Accomplishments: Provides Government VXX systems engineering support to accomplish technical activities to include trade studies and risk reduction efforts. ***FY 2013 Plans:*** Provides Government VXX systems engineering support to accomplish technical activities to include trade studies and risk reduction efforts. ***FY 2014 Plans:*** Provides funding to accomplish technical activities to include trade studies and risk reduction efforts. Following a successful MS B decision, entrance into the Engineering and Manufacturing Development (EMD) Phase, and EMD contract award, funding will support EMD contract execution.			
Accomplishments/Planned Programs Subtotals	58.994	61.163	94.238

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Acquisition Strategy will be provided and approved in support of the pre-Engineering and Manufacturing Development (pre-EMD) Review. An estimated date for MS B is second quarter FY 2014. The VXX program continues to pursue risk reduction activities, capability based assessments, Concept of Operations development, trade study analysis, specification development, system concept development, threat analysis, will cost/should cost strategies, establishing affordability targets, and recommended cost control measures.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604273N: *VH-71 Executive Helo Development*	PROJECT 3300: *Presidential Helicopter VXX*

E. Performance Metrics

Major Defense Acquisition Program performance metrics will be provided upon program Acquisition Category designation.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604273N: *VH-71 Executive Helo Development*	PROJECT 3300: *Presidential Helicopter VXX*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HW Dev	TBD	TBD:TBD	37.704	17.270	Feb 2012	16.282	Jan 2013	45.830	Feb 2014	-		45.830	Continuing	Continuing	Continuing
Primary HW Dev	WR	NAWCAD:St. Inigoes, MD	1.650	0.000		3.167	Nov 2012	3.220	Nov 2013	-		3.220	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWCAD:Patuxent River, MD	6.029	3.062	Dec 2011	4.424	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	45.383	20.332		23.873		49.050		0.000		49.050			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	NAWCAD:Patuxent River, MD	4.244	4.455	Dec 2011	4.450	Nov 2012	4.506	Nov 2013	-		4.506	Continuing	Continuing	Continuing
Integrated Logistics Support	WR	FRC:Cherry Point, NC	0.691	0.580	Dec 2011	0.590	Nov 2012	0.789	Nov 2013	-		0.789	Continuing	Continuing	Continuing
Integrated Logistics Support	WR	NAWCAD:Lakehurst, NJ	0.225	0.169	Dec 2011	0.170	Nov 2012	0.843	Nov 2013	-		0.843	Continuing	Continuing	Continuing
Prior year cost no longer funded in the FYDP	Various	Various:Various	5.047	0.498	Dec 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	10.207	5.702		5.210		6.138		0.000		6.138			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	WR	NAWCAD:Patuxent River, MD	2.361	2.678	Dec 2011	2.189	Nov 2012	3.013	Nov 2013	-		3.013	Continuing	Continuing	Continuing
Live Fire Test & Evaluation	WR	NAWCWD:China Lake, CA	1.200	0.802	Dec 2011	1.200	Nov 2012	0.868	Nov 2013	-		0.868	Continuing	Continuing	Continuing
Operational Test & Evaluation	Various	COTF:Norfolk, VA	0.000	0.055	May 2012	0.311	May 2013	0.320	May 2014	-		0.320	0.000	0.686	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604273N: *VH-71 Executive Helo Development*	PROJECT 3300: *Presidential Helicopter VXX*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	3.561	3.535		3.700		4.201		0.000		4.201			

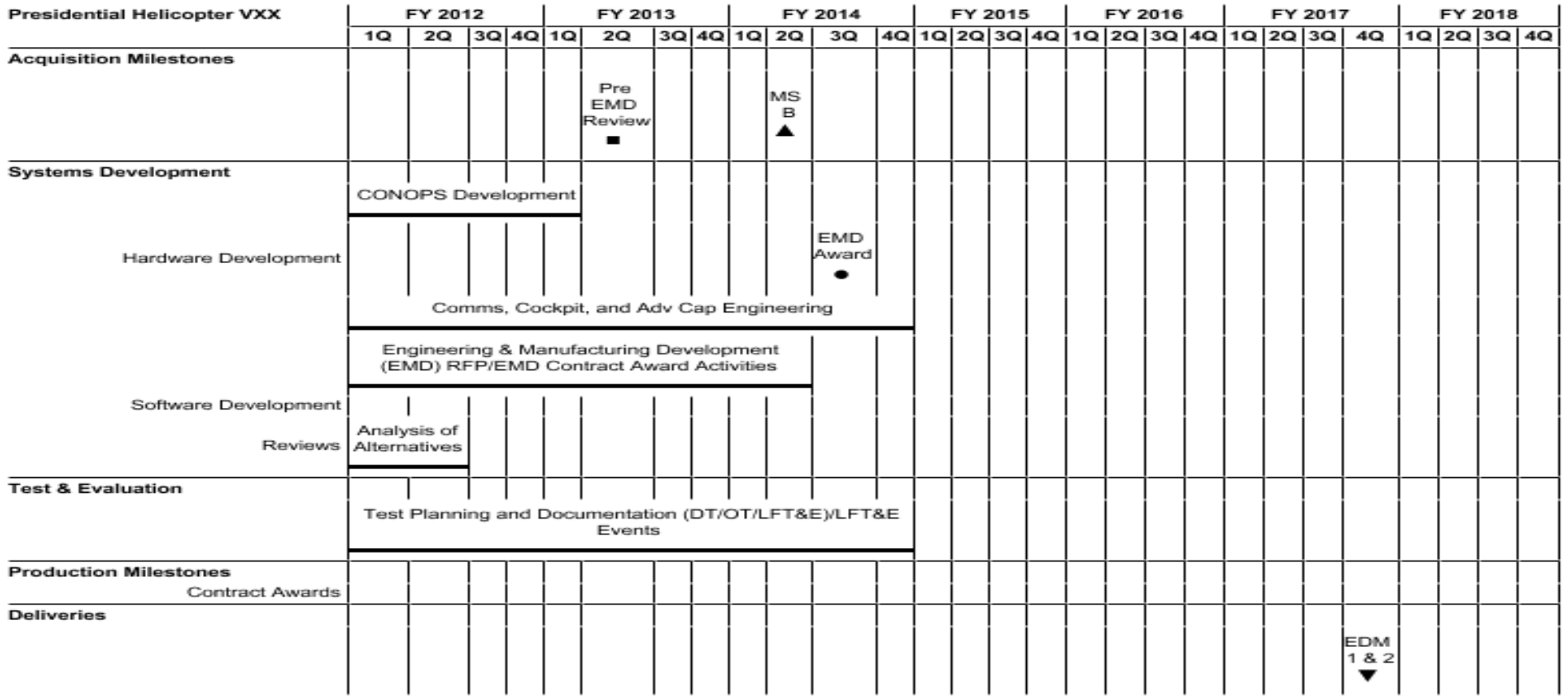
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	Various:Various	0.713	0.613	Dec 2011	0.820	Nov 2012	0.361	Dec 2013	-		0.361	Continuing	Continuing	Continuing
Government Engineering Support	WR	NAWCAD:Patuxent River, MD	9.981	9.339	Nov 2011	8.100	Nov 2012	14.285	Nov 2013	-		14.285	Continuing	Continuing	Continuing
Government Engineering Support	WR	NAWCAD:St. Inigoes, MD	0.000	5.923	Dec 2011	6.100	Nov 2012	6.239	Nov 2013	-		6.239	0.000	18.262	
Training Support	WR	NAWCTSD:Orlando, FL	0.294	0.069	Dec 2011	0.170	Nov 2012	0.035	Nov 2013	-		0.035	Continuing	Continuing	Continuing
Training Support	WR	NAWCAD:Patuxent River, MD	0.116	0.079	Dec 2011	0.100	May 2013	0.696	Nov 2013	-		0.696	0.000	0.991	
Program Management Support	WR	NAWCAD:Patuxent River, MD	20.508	13.177	Dec 2011	13.000	Nov 2012	13.099	Nov 2013	-		13.099	Continuing	Continuing	Continuing
Transportation	Various	NAVAIR:Patuxent River, MD	0.050	0.025	Oct 2011	0.020	Oct 2012	0.020	Oct 2013	-		0.020	Continuing	Continuing	Continuing
Travel	Various	NAVAIR:Patuxent River, MD	0.037	0.200	Oct 2011	0.070	Oct 2012	0.114	Oct 2013	-		0.114	Continuing	Continuing	Continuing
		Subtotal	31.699	29.425		28.380		34.849		0.000		34.849			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	90.850	58.994		61.163		94.238		0.000		94.238			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604273N: *VH-71 Executive Helo Development*	PROJECT 3300: *Presidential Helicopter VXX*



2014PB - 0604273N - 3300

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604273N: *VH-71 Executive Helo Development*	**PROJECT** 3300: *Presidential Helicopter VXX*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Presidential Helicopter VXX				
Acquisition Milestones: Pre EMD Review	2	2013	2	2013
Acquisition Milestones: MS B	2	2014	2	2014
Systems Development: CONOPS Development	1	2012	1	2013
Systems Development: Hardware Development: EMD Award	3	2014	3	2014
Systems Development: Hardware Development: Comms, Cockpit, and Adv Cap Engineering	1	2012	4	2014
Systems Development: Hardware Development: Engineering & Manufacturing Development(EMD) RFP/EMD Contract Award Activities	1	2012	2	2014
Systems Development: Reviews: Analysis of Alternatives	1	2012	2	2012
Test & Evaluation: Test Planning and Documentation (DT/OT/LFT&E)/LFT&E Events	1	2012	4	2014
Deliveries: EDM 1 & 2	4	2017	4	2017

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	195.725	160.793	187.024	257.796	-	257.796	328.746	464.150	506.784	558.807	407.600	3,067.425
0557: *Next Generation Jammer*	195.725	160.793	187.024	257.796	-	257.796	328.746	464.150	506.784	558.807	407.600	3,067.425
MDAP/MAIS Code(s): P445												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project develops new technology in a Next Generation Jammer (NGJ) capability system, with increased electronic radiation power generation to replace the existing ALQ-99 Tactical Jamming System. NGJ is required to keep pace with threat weapons systems advances and continuous expansion of the Airborne Electronic Attack (AEA) mission area. NGJ capabilities will address AEA capability gaps, AEA sufficiency gaps, and address ALQ-99 shortfalls in scalability, flexibility, supportability, interoperability, availability, and capability. NGJ will utilize an adaptable, modular, and open architecture philosophy to combat the increasing capability gap and enable future growth at a reduced operational and sustainment cost.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	170.910	187.024	269.916	-	269.916
Current President's Budget	160.793	187.024	257.796	-	257.796
Total Adjustments	-10.117	0.000	-12.120	-	-12.120
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-5.938	0.000			
• SBIR/STTR Transfer	-4.179	0.000			
• Program Adjustments	0.000	0.000	-64.106	-	-64.106
• Rate/Misc Adjustments	0.000	0.000	51.986	-	51.986

Change Summary Explanation

Technical: Not applicable.

Schedule: Since the previous President's Budget, NGJ has transitioned to an incremental approach, eliminating the requirement for additional milestones under the block approach. Specifically, Milestone B (Block 2), Technology Demonstration Awards (Blocks 2 & 3) and Engineering & Manufacturing Devlopment (Block

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*

2) have been removed from the current R-4 and R-4A exhibits. Engineering Milestones have been added to the R-4 and R-4A exhibits to provide additional detail. System Functional Review is scheduled for 2nd QTR 2014. Preliminary Design Review is scheduled for 1st QTR 2015. Critical Design Review is scheduled for 3rd QTR 2016. Prototype Demonstration was removed as an individual event. This will be conducted as part of the Technology Demonstration Phase.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*	PROJECT 0557: *Next Generation Jammer*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0557: *Next Generation Jammer*	195.725	160.793	187.024	257.796	-	257.796	328.746	464.150	506.784	558.807	407.600	3,067.425
Quantity of RDT&E Articles	0	0	0	0		0	9	0	4	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project develops new technology in a Next Generation Jammer (NGJ) capability required to replace the existing ALQ-99 Tactical Jamming System. NGJ is required to keep pace with threat weapons systems advances and continuous expansion of the Airborne Electronic Attack (AEA) mission area. NGJ capabilities will address AEA capability gaps, AEA sufficiency gaps and address ALQ-99 shortfalls in scalability, flexibility, supportability, interoperability, availability, and capability. NGJ will utilize an adaptable, modular, and open architecture philosophy to combat the increasing capability gap and enable future growth at a reduced operational sustainment cost.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Next Generation Jammer	159.693	186.374	257.796
Articles:	0	0	0
FY 2012 Accomplishments: Continue technology maturation efforts, release Technology Development Request for Proposal, and develop products in support of Milestone A decision.			
FY 2013 Plans: Complete Technology Maturation efforts and achieve Milestone A decision. Award Technology Development contracts.			
FY 2014 Plans: Continue Technology Development Efforts in support of FY15 Milestone B decision. Perform risk reduction activities necessary to prepare for a NGJ Increment 2 Technology Development phase including technology studies, breadboard /demonstrator development and testing in laboratory and relevant environments.			
Title: Capability Development Document (CDD)	1.100	0.650	0.000
Articles:	0	0	
FY 2012 Accomplishments: Update draft CDD and continue routing through Joint Capabilities Integration Development System process.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*	PROJECT 0557: *Next Generation Jammer*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Obtain CDD approval.			
Accomplishments/Planned Programs Subtotals	160.793	187.024	257.796

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0591: *Next Generation Jammer*	0.000	0.000	0.000		0.000	0.000	0.000	6.300	222.496	3,985.700	4,214.496
• MCN/00620258: *Next Generation Jammer*	0.000	0.000	0.000		0.000	0.000	4.400	0.000	0.000	0.000	4.400
• MCN/64482044: *Construction (Planning and design)*	0.000	0.000	0.110		0.110	0.110	0.000	0.000	0.000	0.000	0.220
• APN/0605: *Spares and Repair Parts*	0.000	0.000	0.000		0.000	0.000	0.000	0.000	31.575	74.600	106.175

Remarks

D. Acquisition Strategy

Next Generation Jammer is designated a Pre-Major Defense Acquisition Program (MDAP), with Pre-MDAP Program Number 445, and activity will focus on technology maturation to include technology development strategies in preparation for Milestone A in FY13 and Milestone B in FY15.

E. Performance Metrics

To obtain sufficient technology maturation and technology demonstration to obtain favorable Milestone A and Milestone B decisions for continued program development.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*	PROJECT 0557: *Next Generation Jammer*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	TBD	Various:Various	0.000	0.000		112.828	Jul 2013	174.652	Dec 2013	-		174.652	1,104.602	1,392.082	1,389.657
Primary Hardware Development	C/CPFF	ITT:Clifton, NJ	35.737	25.965	Apr 2012	1.475	Dec 2012	0.000		-		0.000	0.000	63.177	63.177
Primary Hardware Development	C/CPFF	BAE:Nashua, NH	33.985	26.504	Apr 2012	0.000		0.000		-		0.000	0.000	60.489	60.489
Primary Hardware Development	C/CPFF	Raytheon:El Segundo, CA	34.219	25.721	Apr 2012	2.600	Dec 2012	0.000		-		0.000	0.000	62.540	62.540
Primary Hardware Development	C/CPFF	Northrop Grumman:Bethpage, NY	35.218	24.716	Apr 2012	1.521	Dec 2012	0.000		-		0.000	0.000	61.455	61.455
Primary Hardware Development	SS/CPFF	Sparta, Inc.:Lake Forest, CA	1.245	0.000		0.000		0.000		-		0.000	0.000	1.245	1.245
Primary Hardware Development	SS/CPFF	Northrop Grumman Space & Mission Systems Corp.:Herndon, VA	1.765	0.000		0.000		0.000		-		0.000	0.000	1.765	1.765
Studies & Analysis (Non-FFRDC)	SS/CPFF	Mantech Systems Engineering Corp.:Fairfax, VA	1.571	0.000		0.750	Dec 2012	0.582	Dec 2013	-		0.582	3.000	5.903	5.903
Studies & Analysis (Non-FFRDC)	Various	Various:Various	1.541	1.612	Dec 2011	2.070	Nov 2012	1.281	Nov 2013	-		1.281	6.000	12.504	12.504
Systems Engineering	WR	NAWCAD:Patuxent River, MD	16.741	16.591	Nov 2011	19.148	Dec 2012	19.380	Nov 2013	-		19.380	256.254	328.114	
Systems Engineering	WR	NAWCWD:Pt. Mugu, CA	3.472	11.435	Nov 2011	11.762	Dec 2012	11.837	Nov 2013	-		11.837	155.726	194.232	
Systems Engineering	WR	NSWC Crane:Crane, IN	9.017	4.754	Dec 2011	4.882	Dec 2012	6.000	Nov 2013	-		6.000	82.863	107.516	
Systems Engineering	WR	NSWC Dahlgren:Dahlgren, VA	0.000	1.097	Dec 2011	0.846	Dec 2012	0.870	Nov 2013	-		0.870	15.066	17.879	
Systems Engineering	SS/CPFF	Johns Hopkins University Applied	5.341	4.897	Dec 2011	5.757	Apr 2013	5.930	Dec 2013	-		5.930	26.634	48.559	48.559

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*	PROJECT 0557: *Next Generation Jammer*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Physics Lab:Laurel, MD													
Systems Engineering	WR	Naval Research Labratory:Washington, DC	0.000	0.729	Dec 2011	0.775	Dec 2012	0.803	Nov 2013	-		0.803	6.000	8.307	
Systems Engineering	SS/FFP	The Boeing Company:St. Louis, MO	0.000	4.609	May 2012	7.000	Mar 2013	9.500	Nov 2013	-		9.500	67.260	88.369	88.369
Systems Engineering	Various	Various:Various	8.433	4.078	Dec 2011	7.388	Apr 2013	7.453	Nov 2013	-		7.453	70.467	97.819	99.783
Aircraft Integration	WR	NAWCWD:China Lake, CA	0.000	3.624	Dec 2011	3.713	Dec 2012	14.824	Nov 2013	-		14.824	200.924	223.085	
SBIR Assessment	SS/FFP	Various:Various	0.000	0.750	Mar 2012	1.500	Apr 2013	2.000	Dec 2013	-		2.000	0.000	4.250	4.250
		Subtotal	188.285	157.082		184.015		255.112		0.000		255.112	1,994.796	2,779.290	

Remarks

Large Aircraft Integration increase from FY13 to FY14 due to additional integration support required following Technology Demonstration Contract Award.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Eng& Tech Srvc (Non FFRDC)	SS/FFP	NSMA:Arlington, VA	2.821	1.434	Dec 2011	0.000		0.000		-		0.000	0.000	4.255	4.255
Eng& Tech Srvc (Non FFRDC)	Various	Various:Various	4.419	2.010	Dec 2011	2.659	Dec 2012	2.393	Dec 2013	-		2.393	12.000	23.481	23.481
		Subtotal	7.240	3.444		2.659		2.393		0.000		2.393	12.000	27.736	27.736

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*	PROJECT 0557: *Next Generation Jammer*	

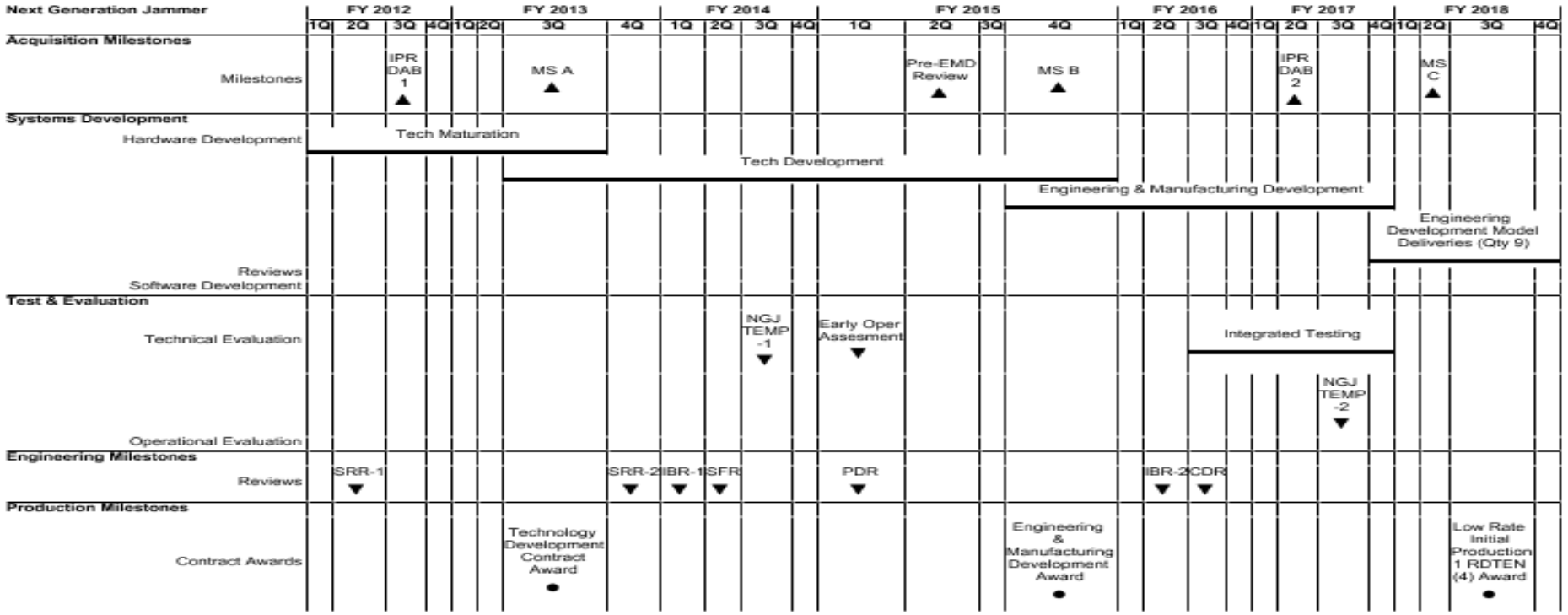
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	Various:Various	0.200	0.200	Dec 2011	0.206	Dec 2012	0.185	Dec 2013	-		0.185	1.100	1.891	
Travel	WR	Various:Various	0.000	0.067	Dec 2011	0.144	Dec 2012	0.106	Dec 2013	-		0.106	0.000	0.317	
		Subtotal	0.200	0.267		0.350		0.291		0.000		0.291	1.100	2.208	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	195.725	160.793		187.024		257.796		0.000		257.796	2,007.896	2,809.234	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*	PROJECT 0557: *Next Generation Jammer*



2014PB - 0604274N - 0557

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*	PROJECT 0557: *Next Generation Jammer*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Next Generation Jammer				
Acquisition Milestones: Milestones: IPR DAB 1	3	2012	3	2012
Acquisition Milestones: Milestones: Milestone A	3	2013	3	2013
Acquisition Milestones: Milestones: Pre-EMD Review	2	2015	2	2015
Acquisition Milestones: Milestones: Milestone B	4	2015	4	2015
Acquisition Milestones: Milestones: IPR DAB 2	2	2017	2	2017
Acquisition Milestones: Milestones: Milestone C	2	2018	2	2018
Systems Development: Hardware Development: Technology Maturation	1	2012	3	2013
Systems Development: Hardware Development: Technology Development	3	2013	4	2015
Systems Development: Hardware Development: Engineering & Manufacturing Development	4	2015	4	2017
Systems Development: Hardware Development: Engineering Development Model Deliveries	4	2017	4	2018
Test & Evaluation: Technical Evaluation: NGJ Test & Evaluation Master Plan -1	3	2014	3	2014
Test & Evaluation: Technical Evaluation: Early Operational Assesment	1	2015	1	2015
Test & Evaluation: Technical Evaluation: Integrated Testing	3	2016	4	2017
Test & Evaluation: Technical Evaluation: NGJ Test & Evaluation Master Plan -2	3	2017	3	2017
Engineering Milestones: Reviews: System Readiness Review-1	2	2012	2	2012
Engineering Milestones: Reviews: System Readiness Review-2	4	2013	4	2013
Engineering Milestones: Reviews: Integrated Baseline Review-1	1	2014	1	2014
Engineering Milestones: Reviews: System Functional Review	2	2014	2	2014
Engineering Milestones: Reviews: Preliminary Design Review	1	2015	1	2015
Engineering Milestones: Reviews: Integrated Baseline Review-2	2	2016	2	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604274N: *Next Generation Jammer (NGJ)*	PROJECT 0557: *Next Generation Jammer*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Engineering Milestones: Reviews: Critical Design Review	3	2016	3	2016
Production Milestones: Contract Awards: Technology Development Contract Award	3	2013	3	2013
Production Milestones: Contract Awards: Engineering & Manufacturing Development Contract Award	4	2015	4	2015
Production Milestones: Contract Awards: Low Rate Initial Production 1 RDTEN Contract Award	3	2018	3	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	4,239.764	601.347	337.480	3.302	-	3.302	0.000	4.997	1.999	0.000	0.000	5,188.889
3020: *MIDS/JTRS*	416.482	47.204	100.419	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	564.105
3073: *AMF JTRS*	1,181.622	264.373	58.187	3.302	-	3.302	0.000	0.000	0.000	0.000	0.000	1,507.484
3074: *GMR JTRS*	998.328	16.962	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,015.290
3075: *HMS JTRS*	655.536	117.231	116.030	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	888.797
3076: *JTRS Network Enterprise Domain (JNED)*	987.796	147.190	59.077	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,194.063
3078: *Digital Modular Radio*	0.000	4.387	3.767	0.000	-	0.000	0.000	4.997	1.999	0.000	0.000	15.150
9999: *Congressional Adds*	0.000	4.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.000
MDAP/MAIS Code(s): 284,360,385,421,554												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Program Element (PE) 0604280N represents the total JTRS RDT&E Budget (includes Multifunctional Information Distribution System (MIDS), Airborne and Maritime/Fixed Station (AMF) JTRS, Ground Mobile Radio (GMR) JTRS, Handheld/Manpack/Small Form Fit (HMS) JTRS, and JTRS Network Enterprise Domain (JNED) and Digital Modular Radios (DMR)).

In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the Acquisition Decision Memorandum (ADM) dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. AMF JTRS and HMS JTRS transitioned to the Army and can be found under PE 0604280A and MIDS transitioned to the Navy under PE 0205604N. The Joint Tactical Networks (JTN) (formally known as JNED) continues to remain under a joint budget strategy in the three Services in the Army PE 0605030A, the Navy PE 0605030N, and the Air Force PE 0605030F.

A. Mission Description and Budget Item Justification

JTRS is the Department of Defense (DoD) family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for Joint Vision 2020. The JTRS family of products will be multifunctional, multiband, multimode, network capable, and capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. JTRS products will provide transformational communication capabilities for the warfighter. JTRS is intended to support communications readiness and mission success, in the 2 Megahertz (MHz) to 2 Gigahertz (GHz) operating frequency range, by providing military commanders with the ability to command, control and communicate with their forces via secure voice/video/data

media forms. JTRS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

The Airborne & Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS) radios are software programmable, multi-band, multi-mode, mobile ad hoc networking radios, providing simultaneous voice, data, and video communications. The radios will operate in networks supporting the Common Operational Picture, situational awareness, and interoperability of Mission Command (MC) systems throughout the battlefield. AMF JTRS must ensure the Warfighters' ability to communicate both horizontally and vertically via voice and data within all mission areas and Combat Operational Environments. AMF JTRS helps close capability gaps by extending data networking to company and below echelons, enabling network services to the platform and connecting Army Aviation platforms to Army ground and Joint air network domains. Per Milestone Decision Authority (MDA) direction, the redefined AMF JTRS Program will procure radios as Non-Developmental Items (NDI).

MIDS - Low Volume Terminal (LVT) is a jam-resistant, secure, digital (voice and data) information distribution system enabling rapid integrated communications, navigation and identification for tactical and command and control operations. The technical objective of the MIDS JTRS program is to transform the MIDS-LVT into a four-channel, Software Communications Architecture (SCA) compliant JTRS, while maintaining current Link-16 and tactical air navigation system (TACAN) functionality. MIDS JTRS is designed to be plug-and-play interchangeable for U.S. Navy and U.S. Air Force platforms that use MIDS-LVT, while accommodating future technologies and capabilities. Improvements such as Link-16 enhanced throughput, Link-16 frequency remapping, and programmable crypto are realized in the MIDS JTRS design. The MIDS JTRS core terminal includes three 2 MHz to 2 GHz programmable channels that allow the warfighter to use multiple waveforms in development by JNED. Total core terminal program requirements include: terminal development, F/A-18 Level 0 integration, software hosting (operating environment/waveforms) and production transition. MIDS JTRS will also provide Concurrent Multi-Netting-4 (CMN-4) and Tactical Targeting Network Technology (TTNT). These capabilities provide Joint Airborne Network-Tactical Edge (JAN-TE) functionality to run advanced mission applications in a cross-platform/cross-domain tactical network enterprise and the ability to simultaneously participate in four Link-16 Nets.

GMR following a critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

HMS provides the JTRS capability to meet Joint Ground Mounted, Dismounted & Embedded Radio Requirements. Increment 1, Phase 1 developed Small-Form-Fit (SFF) SFF-A (1 and 2 Channel), SFF-D and AN/PRC-154 Rifleman Radio running Soldier Radio Waveform (SRW) for use in a sensitive but unclassified environment (Type 2). Increment 1, Phase 2 will develop the 2 Channel Manpack and SFF-B. Phase 2 radios are all Type 1 compliant for use in a classified environment running Very High Frequency/Ultra High Frequency (V/UHF) Line of Sight (LOS) w/Air Traffic Control (ATC), Satellite Communications (SATCOM), High Frequency (HF), Soldier Radio Waveform (SRW), Mobile User Objective System (MUOS), JTRS Bowman Waveform (JBW) and Single Channel Ground to Air Radio System (SINCGARS) waveforms.

Joint Tactical Networks (JTN) will provide interoperable, secure Joint Tactical Networking applications capable of operating in a variety of radio solutions to maintain and sustain an affordable, government-controlled open architecture, in support of Combatant Commanders', Services' and Coalition mission network requirements. JTN is responsible for the continuous development, delivery, and maintenance of networking waveforms and modified legacy radio waveforms that are Software

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604280N: *JT Tact Radio Sys (JTRS)*

Communications Architecture (SCA) compliant. SCA compliant waveforms enable interoperability and support Net-Centric operational warfare at sea, air and on the ground. Networking waveforms extend the Global Information Grid (GIG) to the last tactical mile and to the warfighter.

The Digital Modular Radio (DMR), AN/USC-61(C), is the first software defined radio to have become a communications system standard for the U.S. Military. The compact, multi-channel DMR provides multiple waveforms and multi-level information security for voice and data communications. Digital Modular Radios currently operate aboard U.S. Navy surface and subsurface vessels, fixed-sites and other Department of Defense communication platforms using frequencies ranging from 2 MHz to 2 GHz.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	675.521	337.480	150.372	-	150.372
Current President's Budget	601.347	337.480	3.302	-	3.302
Total Adjustments	-74.174	0.000	-147.070	-	-147.070
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-56.999	0.000			
• SBIR/STTR Transfer	-17.175	0.000			
• Program Adjustments	0.000	0.000	-140.296	-	-140.296
• Rate/Misc Adjustments	0.000	0.000	-6.774	-	-6.774

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Project: 9999: *Congressional Adds*		
Congressional Add: *GMR JTRS (Cong)*	4.000	-
Congressional Add Subtotals for Project: 9999	4.000	0.000
Congressional Add Totals for all Projects	4.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3020: *MIDS/JTRS*	416.482	47.204	100.419	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	564.105
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Project No. 3020 represents the total Multifunctional Information Distribution System (MIDS) RDT&E budget for those years. All references to MIDS funding includes funding for both MIDS-LVT and MIDS JTRS.

In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. MIDS transitioned to the Navy under PE 0205604N.

A. Mission Description and Budget Item Justification

JTRS is the Department of Defense (DoD) family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for Joint Vision 2020. The JTRS family of products will be multifunctional, multiband, multimode, network capable, capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. JTRS products will provide transformational communication capabilities for the warfighter. JTRS is intended to support communications readiness and mission success, in the 2 Megahertz (MHz) to 2 Gigahertz (GHz) operating frequency range, by providing military commanders with the ability to command, control and communicate with their forces via secure voice/video/data media forms. JTRS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

MIDS-Low Volume Terminal (LVT) is a jam-resistant, secure, digital (voice and data) information distribution system enabling rapid integrated communications, navigation and identification for tactical and command and control operations. The technical objective of the MIDS JTRS program is to transform the MIDS-LVT into a four-channel, Software Communications Architecture (SCA) compliant JTRS, while maintaining current Link-16 and tactical air navigation system (TACAN) functionality. MIDS JTRS is designed to be plug-and-play interchangeable for U.S. Navy and U.S. Air Force platforms that use MIDS-LVT, while accommodating future technologies and capabilities. Improvements such as Link-16 frequency remapping and programmable crypto are also realized in the MIDS JTRS design. The MIDS JTRS core terminal includes three 2 MHz to 2 GHz programmable channels that allow the warfighter to use multiple waveforms in development by JNED. Total core terminal program requirements include: terminal development, F/A-18 Level 0 integration, software hosting (operating environment/waveforms) and production transition. MIDS JTRS will also provide Concurrent Multi-Netting-4 (CMN-4) and Tactical Targeting Network Technology (TTNT). These capabilities provide Joint Airborne Network-Tactical Edge (JAN-TE) functionality to run advanced mission applications in a cross-platform/cross-domain tactical network enterprise and the ability to simultaneously participate in four Link-16 Nets.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: MIDS/JTRS	47.204	100.419	0.000
Articles:	0	0	
FY 2012 Accomplishments: Received Full Production and Fielding (FP&F) decision for Core Terminal program (MIDS JTRS) and awarded Lot 1. Began Concurrent Multi-Netting-4 (CMN-4) including LEEP/MIDS Modernization technical analysis to reduce risk for the full development. Awarded MIDS JTRS Block Cycle 2 (BC2) which includes the development, qualification and delivery of the MIDS JTRS Operating Environment software for Platform M, MIDS on Ship (MOS) and Dynamic Network Manager. BC2 incorporates Navy Shipboard Input/Output (NSIO) for the MIDS JTRS terminals. Completed the spec development for MIDS-LVT Crypto Modernization (CM) and Engineering Change Proposal (ECP) Enhancements. Awarded MIDS-LVT Crypto Modernization (LCM), an integral piece of the Block Upgrade 2 (BU2) effort for MIDS-LVT that replaces the crypto chip currently in the MIDS-LVT terminals. Began development of MIDS-LVT CM/BU2 that will replace or update several hardware, software and firmware components within the terminal. Continued MIDS systems engineering, Communications Security (COMSEC), Information Assurance (IA) and program management support.			
FY 2013 Plans: Delivered MIDS JTRS Crypto Modernization (CM) capability. Awarded the development, design and implementation of four (4) nets Concurrent Multi-Netting with Concurrent Contention Receive (CMN-4) for MIDS JTRS. CMN-4 consists of two capabilities, Concurrent Multi-Netting (CMN) and Concurrent Contention Reception (CCR). CMN is the ability of a Link 16 Terminal to receive multiple messages, each in different Link 16 nets, within the same Link 16 time slot. CCR is the ability of a Link 16 Terminal to receive multiple messages in the same Link 16 net within the same Link 16 time slots. Began spec development/technical analysis for Tactical Targeting Network Technology (TTNT) for MIDS JTRS Naval Integrated Fire Control Counter Air (NIFC-CA) and From the Air Advanced Tactical Data Links (FTA ATDL). Assumed responsibility of the TTNT waveform development. These capabilities provide Joint Airborne Network-Tactical Edge (JAN-TE) functionality to run advanced mission applications in a cross-platform/cross-domain tactical network enterprise. Continued on Block Upgrade 2 (BU2) development to include Frequency Remapping (FR), a required Department of Transportation (DOT) mandate to enable the continued use of MIDS Link-16 to remap at least 14 of its 51 data transmission and receipt time slots to frequencies which do not interfere with current and planned Federal Aviation Administration (FAA) safety of flight systems. Began development of Enhanced Throughput (ET) capabilities for MIDS-LVT under BU2. Continued MIDS systems engineering, COMSEC, IA and program management support.			
Accomplishments/Planned Programs Subtotals	47.204	100.419	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0145: *FA-18E/F*	7.957	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	16.312
• APN/0143: *EA-18G*	11.806	8.401	0.000		0.000	0.000	0.000	0.000	0.000	0.000	32.208

Remarks

D. Acquisition Strategy

MIDS JTRS development was initiated as a major modification to the MIDS-LVT using an Engineering Change Proposal to the existing production contracts. Development efforts included the Phase 2B Core terminal. The U.S. prime contractors from the MIDS-LVT program, Data Link Solutions (DLS) and ViaSat Inc., cooperatively designed and developed the Core terminal. Each prime contractor built and qualified Production Verification Terminals. The U.S. implemented a continuous competition strategy between DLS and ViaSat that will be maintained throughout the MIDS JTRS production phase. This strategy was successfully used on MIDS-LVT production. The FY14 budget supports development and implementation of Crypto Modernization, Frequency Remapping, and Enhanced Throughput capabilities for the MIDS-LVT terminal as well as the initial development to incorporate Concurrent Multi-Netting-4 (CMN-4) and Tactical Targeting Network Technology (TTNT) into MIDS JTRS. MIDS JTRS also takes over the responsibilty of developing the TTNT waveform.

E. Performance Metrics

The JTRS programs are employing mature, software-defined radio technologies and developing more than 10 million lines of code as part of the Increment 1 baseline. Early on, a JTRS enterprise software metrics requirements effort established a baseline of standard software metrics which are monitored on each JTRS contract involving software development. Example metrics are: the number of requirements and the number of use cases required for design are estimated during the requirement and design phase and analyzed for trend-actual vs. scheduled; the software lines of code (SLOC) counts are used to determine progress during the coding phase; and the execution of test cases as well as trouble reports are monitored during the integration and test phase. Further, a software complexity product metric is collected which demonstrates the testability of the code and is an important criterion for software certification. These software metrics are used to quantify the quality and progress of each software product's development over time. Additionally, MIDS employs Earned Value Metrics to monitor contract performance on its Prime Development Contracts, as required.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIDS JTRS HW/SW (Phase 2B Core)1	C/CPIF	DLS:Cedar Rapids, IA	120.134	0.000		0.000		0.000		-		0.000	0.000	120.134	120.134
MIDS JTRS HW/SW (Phase 2B Core)	C/CPIF	ViaSat Inc:Carlsbad, CA	125.570	0.000		0.000		0.000		-		0.000	0.000	125.570	125.570
MIDS JTRS HW/SW (Phase 2C TTNT JPCP) DLS	C/CPFF	DLS:Cedar Rapids, IA	11.667	0.000		0.000		0.000		-		0.000	0.000	11.667	11.667
MIDS JTRS HW/SW (Phase 2C TTNT JPCP) Via	C/CPFF	ViaSat Inc:Carlsbad, CA	5.548	0.000		0.000		0.000		-		0.000	0.000	5.548	5.548
MIDS JTRS Production Transition dls	C/FFP	DLS:Cedar Rapids, IA	18.771	0.000		0.000		0.000		-		0.000	0.000	18.771	18.771
MIDS JTRS Production Transition via	C/FFP	ViaSat Inc.:Carlsbad, CA	2.768	0.000		0.000		0.000		-		0.000	0.000	2.768	2.768
MIDS JTRS Preoperational Support dls	C/CPFF	DLS:Cedar Rapids, IA	0.767	0.000		0.000		0.000		-		0.000	0.000	0.767	0.767
MIDS JTRS Preoperational Support via	C/CPFF	ViaSat Inc.:Carlsbad, CA	0.163	0.000		0.000		0.000		-		0.000	0.000	0.163	0.163
MIDS JTRS Spec. Development (Phase 2A) dls	C/FFP	DLS:Cedar Rapids, IA	1.383	0.000		0.000		0.000		-		0.000	0.000	1.383	1.383
MIDS JTRS Spec. Development (Phase 2A) via	C/FFP	ViaSat Inc.:Carlsbad, CA	0.704	0.000		0.000		0.000		-		0.000	0.000	0.704	0.704
MIDS JTRS Proposal Prep (Phase 2B Core) dls	C/FFP	DLS:Cedar Rapids, IA	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	0.600
MIDS JTRS Proposal Prep (Phase 2B Core) via	C/FFP	ViaSat Inc.:Carlsbad, CA	1.922	0.000		0.000		0.000		-		0.000	0.000	1.922	1.922
MIDS JTRS Crypto Mod	C/CPFF	ViaSat Inc:Carlsbad, CA	14.187	0.000		0.000		0.000		-		0.000	0.000	14.187	6.575
MIDS JTRS Crypto Mod	C/CPFF	DLS:Cedar Rapids, IA	8.042	0.000		0.000		0.000		-		0.000	0.000	8.042	6.575

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIDS-LVT CM/ECP Spec Dev	C/FFP	BAE:Fort Wayne, NJ	0.581	0.000		0.000		0.000		-		0.000	0.000	0.581	0.581
MIDS-LVT CM/ECP Spec Dev	C/FFP	DLS:Cedar Rapids, IA	1.796	0.000		0.000		0.000		-		0.000	0.000	1.796	1.796
MIDS-LVT CM/ECP Spec Dev	C/FFP	ViaSat:Carlsbad, CA	2.133	0.000		0.000		0.000		-		0.000	0.000	2.133	1.980
MIDS-LVT BU2 CM/FR/ET Development	C/CPIF	DLS:Cedar Rapids, IA	0.000	0.114	Nov 2012	6.550	Aug 2013	0.000		-		0.000	0.000	6.664	Continuing
MIDS-LVT BU2 CM/FR/ET Development	C/CPIF	ViaSat:Carlsbad, CA	0.000	0.054	Jan 2013	6.550	Aug 2013	0.000		-		0.000	0.000	6.604	Continuing
MIDS-LVT CM/FR/ET Software	C/CPIF	BAE:Fort Wayne, NJ	0.000	0.000		3.100	Aug 2013	0.000		-		0.000	0.000	3.100	Continuing
MIDS-LVT LCM	C/FFP	ViaSat:Carlsbad, CA	0.000	5.500	Aug 2012	0.000		0.000		-		0.000	0.000	5.500	
MIDS JTRS CMN-4/LEEP Prework	C/CPFF	DLS:Cedar Rapids, IA	0.000	9.239	Jul 2012	0.000		0.000		-		0.000	0.000	9.239	Continuing
MIDS JTRS CMN-4/LEEP Prework	C/CPFF	ViaSat:Carlsbad, CA	0.000	8.556	Jul 2012	0.000		0.000		-		0.000	0.000	8.556	Continuing
MIDS JTRS CMN-4	C/CPFF	Trellis Technologies:San Diego, CA	0.000	0.612	Aug 2012	0.000		0.000		-		0.000	0.000	0.612	
MIDS JTRS TTNT Waveform Development	C/CPFF	Rockwell Collins:Wayne, NJ	0.000	0.000		6.000	May 2013	0.000		-		0.000	0.000	6.000	Continuing
MIDS JTRS TTNT Spec Development	C/CPFF	DLS:Cedar Rapids, IA	0.000	0.000		7.650	Jun 2013	0.000		-		0.000	0.000	7.650	
MIDS JTRS TTNT Spec Development	C/CPFF	ViaSat:Carlsbad, CA	0.000	0.000		7.650	Jun 2013	0.000		-		0.000	0.000	7.650	
MIDS JTRS RFA	C/FFP	ViaSat:Carlsbad, CA	0.000	0.129	Jan 2013	0.000		0.000		-		0.000	0.000	0.129	
MIDS JTRS Block Cycle 2 MOS	C/CPFF	DLS:Cedar Rapids, IA	0.000	2.500	Feb 2013	0.000		0.000		-		0.000	0.000	2.500	
MIDS JTRS Block Cycle 2 MOS	C/CPFF	ViaSat:Carlsbad, CA	0.000	2.500	Feb 2013	0.000		0.000		-		0.000	0.000	2.500	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIDS JTRS TTNT Training	C/CPFF	Rockwell Collins:Wayne, NJ	0.000	0.025	Sep 2012	0.000		0.000		-		0.000	0.000	0.025	
MIDS JTRS CMN-4 Full Development	C/CPFF	DLS:Cedar Rapids, IA	0.000	8.131	Jun 2013	26.251	Jun 2013	0.000		-		0.000	0.000	34.382	
MIDS JTRS CMN-4 Full Development	C/CPFF	ViaSat:San Diego, Ca	0.000	8.131	Jun 2013	26.251	Jun 2013	0.000		-		0.000	0.000	34.382	
		Subtotal	316.736	45.491		90.002		0.000		0.000		0.000	0.000	452.229	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
F/A-18 Level 0 Development Support (Unique) cl	WR	NAWS, China Lake:Ridgecrest, CA	1.526	0.000		0.000		0.000		-		0.000	0.000	1.526	1.526
F/A-18 Level 0 Integrated Logistics Suppor (Unique) pax	WR	NAWC:Pax River, MD	0.412	0.000		0.000		0.000		-		0.000	0.000	0.412	0.412
		Subtotal	1.938	0.000		0.000		0.000		0.000		0.000	0.000	1.938	1.938

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
F/A-18 Level 0 Developmental Test & Evaluation (Unique)	WR	NAWC:Pax River, MD	5.409	0.000		0.000		0.000		-		0.000	0.000	5.409	5.409
F/A-18 Level 0 OperationalTest & Evaluation (Unique)	WR	NAWS China Lake:Ridgecrest, CA	1.028	0.000		0.000		0.000		-		0.000	0.000	1.028	1.028
F/A-18 Test Assets dls	C/FFP	DLS:Cedar Rapids, IA	8.850	0.000		0.000		0.000		-		0.000	0.000	8.850	8.850

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
F/A-18 Test Assets via	C/FFP	ViaSat, Inc:Carlsbad, CA	7.365	0.000		0.000		0.000		-		0.000	0.000	7.365	7.365
* F/A-18 EDMs dls	C/FFP	DLS:Cedar Rapids, IA	2.740	0.000		0.000		0.000		-		0.000	0.000	2.740	2.740
* F/A-18 EDMs via	C/FFP	ViaSat, Inc.:Carlsbad, CA	2.475	0.000		0.000		0.000		-		0.000	0.000	2.475	2.475
Engineering Support and Labor/SCS Changes	WR	NAWS China Lake:Ridgecrest, CA	10.519	0.000		0.000		0.000		-		0.000	0.000	10.519	10.519
Government Testing	WR	SSC:San Diego, CA	1.745	0.000		0.000		0.000		-		0.000	0.000	1.745	1.745
NAVAIR Labor	WR	NAWC:Pax River, MD	4.231	0.000		0.000		0.000		-		0.000	0.000	4.231	4.231
ECP 6277 Preparation	WR	NAWC:Pax River, MD	1.963	0.000		0.000		0.000		-		0.000	0.000	1.963	1.963
JTRS CM Test Assets (DLS)	C/FFP	DLS:Cedar Rapids, IA	0.633	0.000		0.000		0.000		-		0.000	0.000	0.633	
JTRS CM Test Assets (ViaSat)	C/FFP	ViaSat:Carlsbad, Ca	0.853	0.000		0.000		0.000		-		0.000	0.000	0.853	
MIDS JTRS CMN-4 Test Assets	C/FP	DLS:Cedar Rapids, IA	0.000	0.000		3.033	May 2013	0.000		-		0.000	0.000	3.033	
MIDS JTRS CMN-4 Test Assets	C/FP	ViaSat:San Diego, Ca	0.000	0.000		4.265	May 2013	0.000		-		0.000	0.000	4.265	
		Subtotal	47.811	0.000		7.298		0.000		0.000		0.000	0.000	55.109	

Remarks

Items marked with an asterisk (*) designate Navy unique tasks.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3020: *MIDS/JTRS*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	General Dynamics/ Sentek:San Diego, Ca	15.145	0.000		0.000		0.000		-		0.000	0.000	15.145	15.145
Workforce Acquisition Fund	C/FP	Not Specified:Not Specified	0.135	0.000		0.000		0.000		-		0.000	0.000	0.135	0.135
Travel	WR	Travel:Pax River, MD/DC	1.027	0.008	Dec 2011	0.036	Oct 2012	0.000		-		0.000	0.000	1.071	1.020
Government Engineering	WR	SSC:San Diego, Ca	23.901	0.254	Nov 2011	1.119	Oct 2012	0.000		-		0.000	0.000	25.274	23.745
Airborne Networking Support	WR	SSC:San Diego, Ca	1.313	0.000		0.000		0.000		-		0.000	0.000	1.313	1.313
Program Management Support	C/CPFF	Booz Allen Hamilton/ SSC:San Diego, Ca	8.273	1.092	Jan 2012	0.000		0.000		-		0.000	0.000	9.365	8.511
Information Assurance Support	MIPR	NSA:Fort George Meade, MD	0.203	0.158	Nov 2011	0.185	Oct 2012	0.000		-		0.000	0.000	0.546	0.610
Systems Engineering Support	MIPR	MITRE:Bedford, Ma	0.000	0.201	Jan 2012	0.769	Oct 2012	0.000		-		0.000	0.000	0.970	
Contractor Engineering Services	C/CPFF	Sentek:San Diego, Ca	0.000	0.000		0.297	Oct 2012	0.000		-		0.000	0.000	0.297	
Contractor Prog. Man. Support NIFCA	C/CPFF	TBD (Competition):TBD	0.000	0.000		0.308	Apr 2013	0.000		-		0.000	0.000	0.308	
NAVAIR PMA 298 (NIFCA) Support	WR	NAVAIR 4.0:Pax River, MD	0.000	0.000		0.405	Feb 2013	0.000		-		0.000	0.000	0.405	
		Subtotal	49.997	1.713		3.119		0.000		0.000		0.000	0.000	54.829	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	416.482	47.204		100.419		0.000		0.000		0.000	0.000	564.105	

Remarks

In PYs-FY13, Project No. 3020 represents the total MIDS RDT&E budget for those years. In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. MIDS transitioned to the Navy under PE 0205604N.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3073: *AMF JTRS*	1,181.622	264.373	58.187	3.302	-	3.302	0.000	0.000	0.000	0.000	0.000	1,507.484
Quantity of RDT&E Articles	0	1	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Project No. 3073 represents the total Airborne Maritime/Fixed Station Joint Tactical Radio Systems (AMF JTRS) RDT&E budget for those years. In FY14, RDT&E funding for AMF JTRS will transition to an Army Program Element (PE).

In FY12-FY14, Project No. 3073 includes funding associated with system and shipboard integration planning/design and OPEVAL planning and coordination of Mobile User Objective Systems (MUOS) terminals on Navy platforms and shore locations.

A. Mission Description and Budget Item Justification

The Airborne & Maritime/Fixed Station Joint Tactical Radio System (AMF JTRS) radios are software programmable, multi-band, multi-mode, mobile ad hoc networking radios, providing simultaneous voice, data, and video communications. The radios will operate in networks supporting the Common Operational Picture, situational awareness, and interoperability of Mission Command (MC) systems throughout the battlefield. AMF JTRS must ensure the Warfighter's ability to communicate both horizontally and vertically via voice and data within all mission areas and Combat Operational Environments. AMF JTRS helps close capability gaps by extending data networking to company and below echelons, enabling network services to the platform and connecting Army Aviation platforms to Army ground and Joint air network domains. Per Milestone Decision Authority (MDA) direction, the redefined AMF JTRS Program will procure radios as Non-Developmental Items (NDI).

AMF JTRS will operate networking waveforms and select waveforms that are widely deployed by Joint Forces today, enable interoperability between different types of platforms, and transport operational and MC information through the tactical network to joint network member nodes. The system will also reach back to access Global Information Grid (GIG) services, where required. The need for interoperable systems, including common waveforms, software applications, and network operations is critical to the mobile tactical network capability. AMF JTRS is relevant to the Joint Functional Concept (Net-Centric Environment), Joint Integrating Concept (Net-Centric Operational Environment), Joint Operating Concept (Major Combat Operations, Stability Operations), and JTRS Concept of Operations (Tactical Wireless Joint Networks). AMF JTRS shall support and enhance three principal Warfighter outcomes: Information Superiority, Joint Force Interoperability, and Networking.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: AMF JTRS	257.023	57.456	0.000
Articles:	0	0	
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Restructured program due to schedule delays, technical challenges, increased costs, budget decisions and changing Service priorities. Conducted market research to support Non-Developmental Item (NDI) acquisition planning. Modified materiel solutions focused on using NDI to meet user needs. Rephased delivery of waveform capabilities aligned with Army battlefield network implementation and maturity. Received an Acquisition Decision Memorandum (ADM) on 7 May 2012 directing the close out of the existing System Development and Design (SDD) contract. On 11 July 2012, the Milestone Decision Authority (MDA) via ADM directed a restructured approach to acquire modified Non-Developmental Items (NDIs) that "leverage the Department's prior investment in the AMF JTRS Program to the maximum extent practical. The Program will include opportunities for Government testing to support competition and future fielding decisions." Commenced development of an RFI/RFP, conducted market research, and prepared contract documents for a networking waveform capability in Army Aviation platforms (e.g., Apache, Black Hawk, and Chinook). ***FY 2013 Plans:*** Continue development and issue of Request for Proposals (RFP). Complete market research. Continue preparation of contract documents, as well as Source Selection for Link 16 and a networking waveform capability in Army Aviation platforms (e.g. Apache, Black Hawk, and Chinook). Set up government lab facilities and equipment to support Source Selection. Fund external agencies (e.g., Army Test and Evaluation Command [ATEC], Joint Interoperability Test Command [JITC], and Training and Doctrine Command [TRADOC]) to support program test & evaluation and requirements efforts. Will complete closeout of current SDD Prime contract.			
Title: DMR HF DAG ***Articles:*** ***Description:*** Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion. ***FY 2012 Accomplishments:*** Developed the 8 channel (DDG) and 16 channel (LPD/LHA/CVN) basic HFDAG design; the Power Amplifier Control Unit (PACU) prototype to support the HFDAG system; and produced the Environment test system.	7.115 1	0.000	0.000
Title: Moblie User Objective System (MUOS) Shipboard/Submarine Terminals (SST) ***Articles:*** ***Description:*** Formerly included in JTRS AMF for Navy integration efforts. ***FY 2012 Accomplishments:*** Began research to determine a new acquisition path forward for the Navy's MUOS requirements. ***FY 2013 Plans:***	0.235 0	0.731 0	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Researching a techinical solution for Navy's MUOS requirement.			
Title: DMR Mobile Users Objective System (MUOS)	0.000	0.000	3.302
Articles:			0
Description: Formerly included in JTRS AMF for Navy integration and porting efforts.			
FY 2014 Plans: Continue development effort on technical solution for Navy's MUOS requirement including integration and porting the MUOS waveform into the DMR.			
Accomplishments/Planned Programs Subtotals	264.373	58.187	3.302

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/3010: *DMR*	1.494	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	1.494
• RDTEA/0605380A: *AMF JTRS*	0.000	0.000	33.219		33.219	64.574	21.415	5.100	0.000	0.000	124.308
• RDTEF/0604280F: *AMF JTRS*	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	154.189

Remarks

D. Acquisition Strategy

AMF JTRS underwent a program restructure in accordance with Milestone Decision Authority (MDA) direction. The program is revising its material solution strategy to leverage commercially available Non-Developmental Item (NDI) tactical radios in order to rapidly deliver AMF JTRS capabilities to the warfighter. The strategy will support a concept in which NDI radios can be selected from the vendor base and tailored to platform needs. The current strategy is to procure two variations of NDI radios for Airborne platforms. Maritime/Fixed Station sites will not be part of the revised procurement.

E. Performance Metrics

Acquisition Decision Memorandum (ADM) received on 11 July 2012 directing a restructure of the AMF JTRS Program. Performance metrics will be evaluated after the program Acquisition Strategy has been finalized and the new Acquisition Program Baseline approved.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIDS JTRS HW/SW (Phase 2A/2B Core)	C/CPIF	DLS:Cedar Rapids, IA	8.563	0.000		0.000		0.000		-		0.000	0.000	8.563	
MIDS JTRS HW/SW (Phase 2A/2B Core)	C/CPIF	ViaSat Inc:Carlsbad, CA	4.078	0.000		0.000		0.000		-		0.000	0.000	4.078	
AMF JTRS Development-JTR System (Pre-SDD)	C/CPFF	The Boeing Co:Anaheim, CA	45.603	0.000		0.000		0.000		-		0.000	0.000	45.603	
AMF JTRS Development-JTR System (Pre-SDD)	C/CPFF	Lockheed Martin:Manassas, VA	45.335	0.000		0.000		0.000		-		0.000	0.000	45.335	
AMF JTRS Development-JTR SET (SDD)	C/CPIF	Lockheed Martin:Manassas, VA	799.132	91.000	Oct 2011	0.000		0.000		-		0.000	0.000	890.132	
AMF JTRS- Systems Engineering	WR	Various:Various	115.745	8.775	Oct 2011	12.163	Aug 2013	0.000		-		0.000	0.000	136.683	
AMF JTRS- NDI Integration and Certification	TBD	Various:Various	0.000	33.620	Jul 2013	18.625	Aug 2013	0.000		-		0.000	0.000	52.245	
Systems Engineering-JTRS Implementation-Navy Unique	WR	Various:Various	15.634	0.000		0.000		0.000		-		0.000	0.000	15.634	
DMR HF DAG Power Amplifier H/W Development	C/FFP	GDDS:Various	0.000	4.962	Apr 2013	0.000		0.000		-		0.000	0.000	4.962	
Systems Engineering- JTF WARNET	WR	Various:Various	7.481	0.000		0.000		0.000		-		0.000	0.000	7.481	
JTRS HMS Design, Development and Manufacture of Engineering Development Models (EDMs)	C/CPAF	General Dynamics C4 Systems:Scottsdale, AZ	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
DMR HF DAG- System Integration	WR	SSC PAC:San Diego, CA	0.000	0.545	Apr 2013	0.000		0.000		-		0.000	0.000	0.545	
DMR HF DAG- Design	WR	SSC PAC:San Diego, CA	0.566	1.619	Jan 2013	0.000		0.000		-		0.000	0.000	2.185	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Engineering DMR HFDAG	C/CPFF	CECOM MITRE:San Diego, CA	0.000	0.100	Oct 2012	0.000		0.000		-		0.000	0.000	0.100	
Software Development DMR MUOS	C/CPFF	General Dynamics:Scottsdale, AZ	0.000	0.000		0.000		1.802	Oct 2013	-		1.802	0.000	1.802	
Software Development DMR MUOS	WR	SSC PAC:San Diego, GA	0.000	0.000		0.000		1.200	Oct 2013	-		1.200	0.000	1.200	
Software Engineering DMR MUOS	C/CPFF	CECOM MITRE:San Diego, CA	0.000	0.000		0.000		0.300	Oct 2013	-		0.300	0.000	0.300	
Software Development DMR MUOS	C/CPFF	Various:Various	0.000	20.347	Feb 2013	0.000		0.000		-		0.000	0.000	20.347	
		Subtotal	1,042.137	160.968		30.788		3.302		0.000		3.302	0.000	1,237.195	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMF JTRS- Acquisition, and ILS Support	WR	Various:Various	32.295	7.547	Oct 2011	2.518	Aug 2013	0.000		-		0.000	0.000	42.360	
Software Dev: DMR Build 6.4	C/FFP	GDDS:Various	12.861	0.000		0.000		0.000		-		0.000	0.000	12.861	
DMF HF DAG- ILS	C/CPFF	CSA:San Diego	0.000	0.125	Jan 2013	0.000		0.000		-		0.000	0.000	0.125	
MUOS SST - Acquisition Support	C/CPFF	BAH:San Diego	0.000	0.000		0.709	Apr 2013	0.000		-		0.000	0.000	0.709	
		Subtotal	45.156	7.672		3.227		0.000		0.000		0.000	0.000	56.055	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMF JTRS- Test and Evaluation and Test Support	WR	Various:Various	51.860	30.380	Oct 2011	20.100	Aug 2013	0.000		-		0.000	0.000	102.340	
DMR T&E (FOTE) SD	WR	SSC:San Diego, CA	7.093	0.000		0.000		0.000		-		0.000	0.000	7.093	
DMR T&E (FOTE) CHARL	WR	SSC:Charleston, SC	1.732	0.000		0.000		0.000		-		0.000	0.000	1.732	
MUOS SST- Navy Specific Integration	WR	Various:San Diego, CA	0.000	0.000		0.022	Apr 2013	0.000		-		0.000	0.000	0.022	
DMR HF DAG- T&E	WR	SSC PAC:San Diego, CA	0.230	0.000		0.000		0.000		-		0.000	0.000	0.230	
JTNC Waveform Alignment	WR	Various:San Diego, CA	0.000	23.545	Mar 2013	0.000		0.000		-		0.000	0.000	23.545	
MUOS - Air Force Specific	WR	Various:San Diego, CA	0.000	20.500	Feb 2013	0.000		0.000		-		0.000	0.000	20.500	
		Subtotal	60.915	74.425		20.122		0.000		0.000		0.000	0.000	155.462	

Remarks

MUOS Shipboard/Submarine Terminals (MUOS SST)- Navy Specific Integration for Navy to complete system and shipboard integration planning/design and OPEVAL of MUOS terminals on Navy platforms and shore locations.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AMF Business Operations Management and Support	WR	Various:Various	32.375	21.308	Oct 2011	4.050	Aug 2013	0.000		-		0.000	0.000	57.733	
Acquisition Workforce Fund- 2009	C/FP	Various:Various	1.039	0.000		0.000		0.000		-		0.000	0.000	1.039	
		Subtotal	33.414	21.308		4.050		0.000		0.000		0.000	0.000	58.772	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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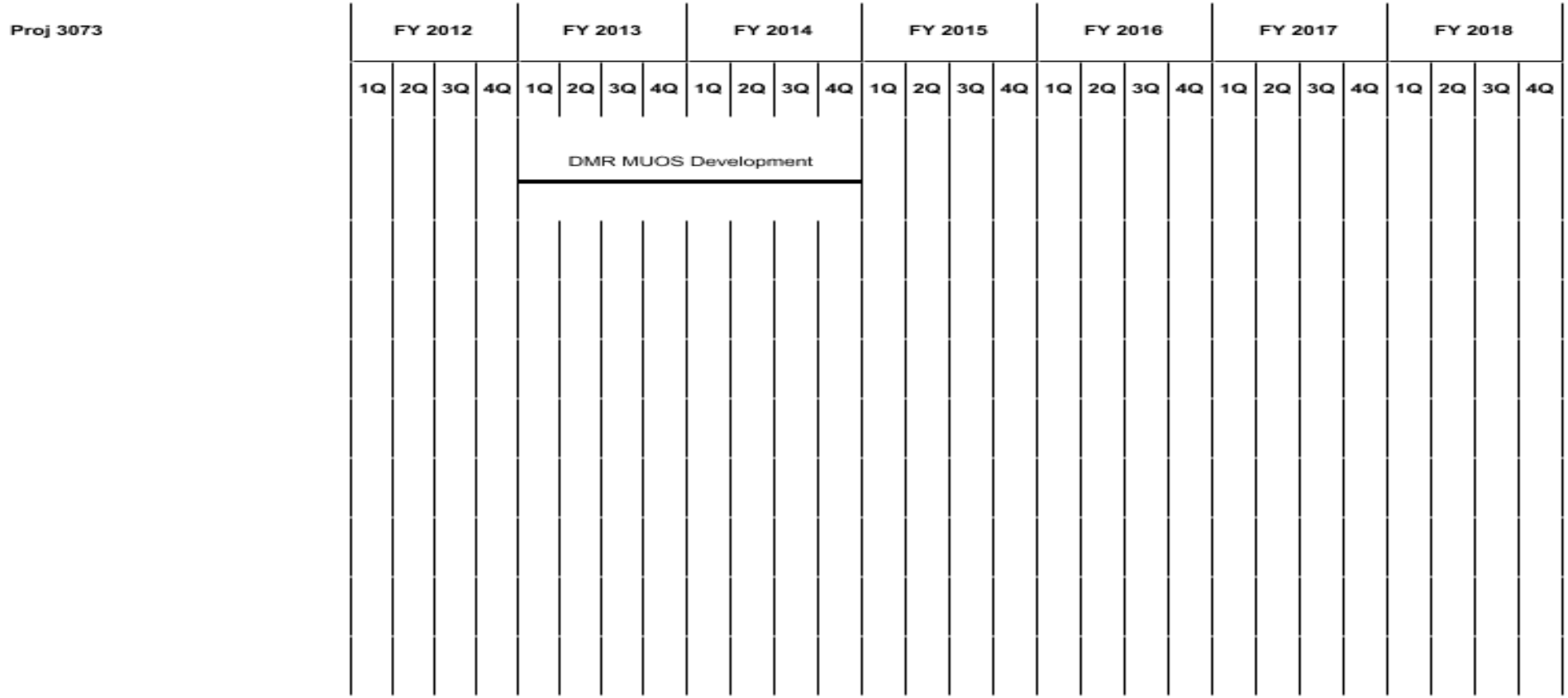
	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,181.622	264.373		58.187		3.302		0.000		3.302	0.000	1,507.484	

Remarks

AMF JTRS underwent a program restructure in accordance with Milestone Decision Authority (MDA) direction. The program is revising its material solution strategy to leverage commercially available Non-Developmental Item (NDI) tactical radios in order to rapidly deliver AMF JTRS capabilities to the warfighter. The strategy will support a concept in which NDI radios can be selected from the vendor base and tailored to platform needs. The current strategy is to procure two variations of NDI radios for Airborne platforms. Maritime/Fixed Station sites will not be part of the revised procurement.

Prior Year (PY) column only includes the Navy portion of the budget for AMF JTRS; prior to FY07, Air Force AMF JTRS funding resided in Air Force PE 0604280F, Project 5068. FY07-FY11 PYs represent the total AMF JTRS RDT&E budget for those years. In FY12-13, Project No. 3073 represents the total AMF JTRS RDT&E budget.

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3073: *AMF JTRS*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3073				
DMR MUOS Development	1	2013	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3074: *GMR JTRS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3074: *GMR JTRS*	998.328	16.962	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,015.290
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12, Project No. 3074 represents the total Joint Tactical Radio System (JTRS) Ground Mobile Radio (GMR) RDT&E budget.

A. Mission Description and Budget Item Justification

JTRS is the Department of Defense (DoD) family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for Joint Vision 2020. The JTRS family of products will be multifunctional, multiband, multimode, network capable, capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. JTRS products will provide transformational communication capabilities for the warfighter. JTRS is intended to support communications readiness and mission success, in the 2 Megahertz (MHz) to 2 Gigahertz (GHz) operating frequency range, by providing military commanders with the ability to command, control and communicate with their forces via secure voice/video/data media forms. JTRS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

Following a Critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: GMR JTRS	16.962	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: Conducted close out of the System Development and Demonstration (SDD) contract. Activities included: identifying critical deliverables such as hardware, design specifications, instrumentation, modeling tools, simulators, etc. for delivery to the Government. Continued support to the GMR PMO (travel, training, payroll, etc.). Achieved National Security Agency (NSA) Type 1 Certification.			
Accomplishments/Planned Programs Subtotals	16.962	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3074: *GMR JTRS*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Following a Critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3074: *GMR JTRS*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS GMR GFE	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	4.000	0.000		0.000		0.000		-		0.000	0.000	4.000	4.000
JTRS GMR GFE	C/CPAF	General Dynamics:Scottsdale, AZ	0.702	0.000		0.000		0.000		-		0.000	0.000	0.702	0.702
JTRS GMR SDD	C/CPAF	Boeing:Huntington Beach, CA	846.719	10.278	Oct 2011	0.000		0.000		-		0.000	0.000	856.997	856.997
JTRS DEVELOPMENT - System Engineering Support	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	16.738	0.000		0.000		0.000		-		0.000	0.000	16.738	16.738
Technology Development Efforts	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	20.966	0.000		0.000		0.000		-		0.000	0.000	20.966	20.966
		Subtotal	889.125	10.278		0.000		0.000		0.000		0.000	0.000	899.403	899.403

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS Antenna Study	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	2.025	0.000		0.000		0.000		-		0.000	0.000	2.025	2.025
JTRS Tech Support	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	9.344	0.000		0.000		0.000		-		0.000	0.000	9.344	9.344
JTRS MUOS Support	C/CPFF	Johns Hopkins University:Laurel, MD	0.623	0.000		0.000		0.000		-		0.000	0.000	0.623	0.623
DIACAP Support	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	0.960	0.000		0.000		0.000		-		0.000	0.000	0.960	0.960
		Subtotal	12.952	0.000		0.000		0.000		0.000		0.000	0.000	12.952	12.952

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS EPG test bed & test planning	MIPR	EPG:Fort Huachuca, AZ	18.297	0.000		0.000		0.000		-		0.000	0.000	18.297	18.297
JTRS M&S	MIPR	USAIC:Fort Huachuca, AZ	7.384	0.000		0.000		0.000		-		0.000	0.000	7.384	7.384
JTRS Test In-house Spt & Gov activities	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	11.380	0.000		0.000		0.000		-		0.000	0.000	11.380	11.380
JTRS EOA/CLUT/NIR/NIE Dev. Field Test Activity	MIPR	EPG:Fort Huachuca, AZ	17.024	0.000		0.000		0.000		-		0.000	0.000	17.024	17.024
		Subtotal	54.085	0.000		0.000		0.000		0.000		0.000	0.000	54.085	54.085

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS Business Engineering Mgmt	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	16.191	0.000		0.000		0.000		-		0.000	0.000	16.191	16.191
PMO Support	MIPR	PEO C3T:Aberdeen Proving Grounds, MD	24.295	6.684	Dec 2011	0.000		0.000		-		0.000	0.000	30.979	30.979
JTRS MITRE Support	MIPR	MITRE:Aberdeen Proving Grounds, MD	0.513	0.000		0.000		0.000		-		0.000	0.000	0.513	0.513
Acquisition Workforce Fund	C/FP	Not Specified:Not Specified	1.167	0.000		0.000		0.000		-		0.000	0.000	1.167	1.167
		Subtotal	42.166	6.684		0.000		0.000		0.000		0.000	0.000	48.850	48.850

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	998.328	16.962		0.000		0.000		0.000		0.000	0.000	1,015.290	1,015.290

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3074: *GMR JTRS*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Prior Years (PY) column only reflects prior year Navy Joint Tactical Radio System (JTRS) Ground Mobile Radio (GMR) costs for FY07-11. Prior to FY07, JTRS GMR funding resided in Army Program Element (PE) 0604805A, Project 615. In FY12 Project No. 3074 represents the total JTRS GMR RDT&E budget.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3075: *HMS JTRS*	655.536	117.231	116.030	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	888.797
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Project No. 3075 represents the total HMS JTRS RDT&E budget for those years.

Prior to FY14, Project Unit 3075 JTRS HMS was funded under Program Element (PE) 0604280N aligned under the Navy Joint Tactical Radio System (JTRS) Programs. In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. HMS JTRS is now associated with Program Executive Office Command, Control and Communications-Tactical (PEO C3T) under Project Manager Tactical Radios (PM TR) PE 0604280A.

A. Mission Description and Budget Item Justification

HMS is the Department of Defense (DoD) family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for JointVision 2020. The HMS products will be multifunctional, multiband, multimode, network capable, capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. HMS products will provide transformational communication capabilities for the warfighter. HMS is intended to support communications readiness and mission success, in the 2 Megahertz (MHz) to 2 Gigahertz (GHz) operating frequency range, by providing military commanders with
the ability to command, control and communicate with their forces via secure voice/video/data media forms. HMS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

HMS provides the capability to meet Joint Ground Mounted, Dismounted & Embedded Radio Requirements. Increment 1, Phase 1 developed Small-Form-Fit (SFF) SFF-A, SFF-D and AN/PRC-154 Rifleman Radio running Soldier Radio Waveform (SRW) for use in a sensitive but unclassified environment (Type 2). Increment 1, Phase 2 will develop the 2 Channel Manpack and SFF-B. Phase 2 radios are all Type 1 compliant for use in a classified environment running Satellite Communications (SATCOM), Soldier Radio Waveform (SRW), Mobile User Objective System (MUOS), and Single Channel Ground to Air Radio System (SINCGARS) waveforms.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: HMS JTRS	117.231	116.030	0.000
Articles:	0	0	
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Performed Phase 1 Initial Operational Test & Evaluation (IOT&E); Obtained Phase 1 and Phase 2 Information Assurance certification; Received Phase 2 Information Assurance certification; Completed Phase 2 Governmental Development Test (GDT) 2, Phase 2 Multi-Service Operational Test & Evaluation (MOTE) and Phase 2 GDT3; Continued Porting efforts for Mobile User Objective System (MUOS) waveform; Started Small Form Fit (SFF)-B Contractor Demonstration Test (CDT); Initiated redesign of SFF-B capabilities; Provided technical and engineering support for development efforts including the preparation of a Low Rate Initial Production (LRIP) decision for Phase 1 and Phase 2. ***FY 2013 Plans:*** Participate in Phase 2 Customer Test Event; Continue redesign of SFF-B capabilities; Test redesigned SFF-B in a radio-specific development test and combined vendor development test; Perform Follow-On Operational Test & Evaluation (FOTE) of redesigned SFF-B radio; Continued MUOS porting and testing activities to include Public Key Information (PKI) updates on the Manpack; Complete SFF-B CDT and all related development efforts; Obtain Information Assurance certification for the SFF-B; Provide technical and engineering support for development efforts including preparing for a Full Rate Production (FRP) decision for Phase 1 and a Low Rate Initial Production (LRIP) Competition decision for Phase 2. Perform additional testing events to include Mobile User Objective System (MUOS) Government Developmental Test, Phase 1 Qualification Test (QT) and Phase 2 Qualification Test (QT).			
Accomplishments/Planned Programs Subtotals	117.231	116.030	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/3057: *COMMUNICATION ITEMS UNDER $5M*	0.000	3.102	0.000		0.000	0.905	0.859	0.874	0.890	Continuing	Continuing
• RDTEA/0604280A: *HMS JTRS*	0.000	0.000	28.217		28.217	4.712	4.615	0.000	0.000	0.000	38.299
• RDTEAF/0604280F: *HMS JTRS*	0.000	0.000	2.857		2.857	0.334	0.000	0.000	0.000	0.000	3.191
• RDTEA/0604805A: *JTRS Cluster 5 / HMS*	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	242.657

Remarks

D. Acquisition Strategy

This project supports the HMS Engineering and Manufacturing Development phase efforts. The HMS Program began with the development of the HMS Radios following Milestone (MS) B approval on April 26, 2004. HMS uses an evolutionary acquisition strategy and will deliver NSA certified capabilities. Following full and open competition, a single Cost-Plus-Award Fee (CPAF) contract was awarded on July 16, 2004. The contract is structured to address Increment 1. JTRS HMS Increment 1 consists of two phases of development. Increment 1, Phase 1 developed SFF-A, SFF-D and AN/PRC-154 Rifleman Radio running Soldier Radio Waveform (SRW) for

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*

use in a sensitive but unclassified environment (Type 2). Increment 1, Phase 2 is developing the 2 Channel Manpack and SFF-B which are Type 1 compliant for use in a classified environment running Satellite Communications (SATCOM), Soldier Radio Waveform (SRW), Mobile User Objective System (MUOS), and Single Channel Ground to Air Radio System (SINCGARS) waveforms.

E. Performance Metrics

HMS employs mature, software-defined radio technology. JTRS enterprise software metrics requirements established a baseline of standard software metrics which are monitored on the HMS contract. Further, a software complexity product metric is collected which demonstrates the testability of the code and is an important criterion for software certification. These software metrics are used to quantify the quality and progress of each software product's development over time. Additionally, HMS employs Earned Value Metrics to monitor contract performance on the Prime Development Contract.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS HMS Design, Development and Manufacture of Engineering Development Models (EDMs)	C/CPAF	General Dynamics C4 Systems:Scottsdale, AZ	492.894	92.950	Oct 2011	89.235	Oct 2012	0.000		-		0.000	0.000	675.079	679.032
JTRS HMS Development System Engineering Support	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	24.964	0.000		0.000		0.000		-		0.000	0.000	24.964	24.964
Technology Development efforts	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	8.317	0.000		0.000		0.000		-		0.000	0.000	8.317	8.317
		Subtotal	526.175	92.950		89.235		0.000		0.000		0.000	0.000	708.360	712.313

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS Engineering/ Technical Support	MIPR	PEO C3T, ARL, CACI, CECOM, CERDEC, LCMC, DSCI:Ft. Monmouth, NJ/APG, MD; San Diego, CA	39.720	8.037	Oct 2011	7.870	Oct 2012	0.000		-		0.000	0.000	55.627	55.126
		Subtotal	39.720	8.037		7.870		0.000		0.000		0.000	0.000	55.627	55.126

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS EPG test bed and planning	MIPR	EPG:Ft. Huachuca, AZ	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	0.300
JTRS Modeling and Simulation.	MIPR	USAIC:Ft. Huachuca, AZ	0.650	0.000		0.000		0.000		-		0.000	0.000	0.650	0.650

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS Test In-house Support & Government	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD; SSC PAC: San Diego, CA	11.924	0.289	Oct 2011	0.238	Oct 2012	0.000		-		0.000	0.000	12.451	12.502
Phase1 T&E (CDT, GDT, LUT, OT)	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	14.994	0.592	Oct 2011	3.250	Oct 2012	0.000		-		0.000	0.000	18.836	18.847
Phase2 T&E (CDT, GDT, LUT, OT)	MIPR	PEO C3T:Ft. Monmouth, NJ/ APG,MD	9.871	10.028	Oct 2011	12.645	Oct 2012	0.000		-		0.000	0.000	32.544	32.031
Follow on Delta Development & Testing	MIPR	EPG, ATEC, AEC, MBL, ARLSLAD, CERDEC:Ft. Huachuca, AZ; Ft. Benning, GA; Ft. Monmouth,AP	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	0.171
		Subtotal	37.739	10.909		16.133		0.000		0.000		0.000	0.000	64.781	64.501

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Office Support	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	36.844	4.393	Oct 2011	1.926	Oct 2012	0.000		-		0.000	0.000	43.163	42.828
JTRS Business/ Management	MIPR	PEO C3T:Ft. Monmouth, NJ/APG, MD	14.424	0.942	Oct 2011	0.866	Oct 2012	0.000		-		0.000	0.000	16.232	16.460
Acquisition Workforce Fund	C/FP	Not Specified:Not Specified	0.634	0.000		0.000		0.000		-		0.000	0.000	0.634	0.634
		Subtotal	51.902	5.335		2.792		0.000		0.000		0.000	0.000	60.029	59.922

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3075: *HMS JTRS*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	655.536	117.231		116.030		0.000		0.000		0.000	0.000	888.797	891.862

Remarks

PYs column only reflects prior year Navy HMS costs for FY07-11. Prior to FY07, HMS JTRS funding resided in Army PE 0604805A, Project 61A. In FY12 and FY13, Project No. 3075 represents the total HMS JTRS RDT&E budget. In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to a Military Department-managed program. HMS JTRS is now associated with Program Executive Office Command, Control and Communications-Tactical (PEO C3T) under Project Manager Tactical Radios (PM TR) PE 0604280A."

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3076: *JTRS Network Enterprise Domain (JNED)*	987.796	147.190	59.077	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,194.063
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

In FY12-FY13, Project No. 3076 represents the total JNED RDT&E budget.

In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to Military Department-managed programs. The continuing Joint Tactical Networks (JTN) (formally known as JNED) will remain under a joint budget strategy in the three Services in new PEs (Army PE 0605030A, the Navy PE 0605030N, and the Air Force PE 0605030F). As part of the JTRS joint program budget strategy, each Military Department (MILDEP) budgets for approximately one-third of the total program RDT&E funds. Prior to the year of execution, the funding is consolidated in the Army PE.

A. Mission Description and Budget Item Justification

Joint Tactical Networks (JTN) will provide interoperable, secure Joint Tactical Networking applications capable of operating in a variety of radio solutions to maintain and sustain an affordable, government-controlled open architecture, in support of Combatant Commanders', Services' and Coalition mission network requirements. JTN is responsible for the continuous development, delivery, and maintenance of networking waveforms and modified legacy radio waveforms that are Software Communications Architecture (SCA) compliant. SCA compliant waveforms enable interoperability and support Net-Centric operational warfare at sea, air and on the ground. Networking waveforms extend the Global Information Grid (GIG) to the last tactical mile and to the warfighter.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Mobile User Objective System (MUOS)	46.648	2.125	0.000
Articles:	0	0	
Description: Mobile User Objective System (MUOS) Waveform will enable MUOS satellites to provide worldwide communication satellite coverage for DoD requirements. MUOS will provide functionality comparable to commercial mobile phone systems. MUOS offers secure streaming video, netted communications, and voice/data in real time to provide essential connectivity. The JTN program will modify this waveform, making it compatible and certifiable with DoD security requirements while enabling porting to tactical radio sets. MUOS is currently being ported by 5 vendors on 6 different platforms.			
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continued development of MUOS v3.1. ***FY 2013 Plans:*** Completed development of MUOS v3.1 in 1Q FY13. Begin Software In Service Support for the MUOS waveform.			
Title: Joint Airborne Networking -Tactical Edge (JAN-TE) ***Articles:*** ***Description:*** Joint Airborne Networking - Tactical Edge (JAN-TE) will operate on JTRS airborne sets to provide a networked tactical communications capability for tactical aircraft. JAN-TE will provide increased throughput, highly responsive connectivity, and ad hoc mobile networking for fighters engaged in air operations. This networking waveform is uniquely designed and engineered for highly maneuverable, fast moving aircraft for rapidly establishing networks to share high value data communications. USD(AT&L) directed that the development of the JAN-TE waveform be discontinued after Critical Design Review in October 2008, but allowed the Navy and/or Air Force to continue funding its development independently, if desired. In FY2011, the Navy began to budget and execute funding for continuation of JAN-TE's development. ***FY 2012 Accomplishments:*** Continued development of the JAN-TE waveform.	24.755 0	0.000	0.000
Title: Network Enterprise Services (NES) ***Articles:*** ***Description:*** JTRS Network Enterprise Services (JNES)/JTRS Enterprise Network Manager (JENM): Prior to FY13, JTRS Network Enterprise Services (JNES) included the development and acquisition of JTRS WNW Network Manager (JWNM), JTRS Enterprise Network Manager (JENM), Soldier Radio Waveform Network Manager (SRWNM), and Enterprise Network Services (ENS). In FY13 and out, JENM provides consolidated communications planning, network configuration, network activation, position reporting, fault management, security management, and network health and status reporting needed to establish and maintain a mobile wireless network comprised of JTN network waveforms. JENM can interface with other external network managers, mission planning systems, network planning systems, key management systems, and spectrum planning systems. JENM is considered a mission essential system. JENM is also considered a critical element within the JTN configuration management tool kit. ***FY 2012 Accomplishments:*** Continued development for JENM Phase 2 enhancement effort. Began Software In Service Support for Network Services and Network Managers. Continued to provide JTN technical support, including waveform development, systems engineering,	29.064 0	13.679 0	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
spectrum allocation, system security engineering, problem resolution and support of Software Communications Architecture (SCA) activities. ***FY 2013 Plans:*** Complete development and perform FQT for JENM Phase 2 enhancement effort in 1Q FY13. Continue Software In Service Support for Network Services and Network Managers. Continue to provide JTN technical support, including waveform development, systems engineering, spectrum allocation, system security engineering, problem resolution and support of Software Communications Architecture (SCA) activities.			
Title: Legacy Radio Waveforms ***Articles:*** ***Description:*** Legacy Radio Waveforms/Program Management: Includes the continued development, incremental upgrades, and software efficiencies of legacy software and other related activities to support the legacy waveform integration into hardware solutions in the field. ***FY 2012 Accomplishments:*** Continued to support waveform integration, test and evaluation to include hardware and Software Waveform Certification Process (SCA compliance testing) to meet program requirements. Continued JTN program management office support. Continued Software In Service Support for Legacy waveforms. ***FY 2013 Plans:*** Continue to support waveform integration, test and evaluation to include hardware and Software Waveform Certification Process (SCA compliance testing) to meet program requirements. Continue JTN program management office support. Continue Software In Service Support for Legacy waveforms.	46.723 0	43.273 0	0.000
Accomplishments/Planned Programs Subtotals	147.190	59.077	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTEF/0605030F: *JTN*	0.000	0.000	0.000		0.000	20.088	22.346	22.255	22.656	Continuing	Continuing
• RDTEA/0605030A: *JTN*	0.000	0.000	68.148		68.148	19.909	21.788	26.849	25.000	Continuing	Continuing
• RDTEN/0605030N: *JTN*	0.000	0.000	0.000		0.000	16.911	14.039	14.274	14.536	0.000	59.760

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*

D. Acquisition Strategy

JTN is responsible for common core activities including developing and updating the SCA compliant legacy and networking waveforms that operate on multiple hardware sets and in all operational environments that support network-centric operational warfare, as well as common networking services (interface standards, network managers, etc). Waveform developments (upgrading, developing, and maintaining) will generally be procured through full and open contract competitions. The JTN program is developing waveforms and Cryptographic Equipment Applications (CEAs) for use within the software-defined radio community.

The FY14 Budget supports continued development of waveforms/supporting software, testing support, and the National Security Agency (NSA) evaluation of software Information Assurance (IA) compliance.

E. Performance Metrics

The JTN programs are employing mature, software-defined radio technologies and developing more than 10 million lines of code as part of the Increment 1 baseline. Early on, a JTN enterprise software metrics requirements effort established a baseline of standard software metrics which are monitored on each JTN contract involving software development. Example metrics are: the number of requirements and the number of use cases required for design are estimated during the requirement and design phase and analyzed for trend-actual vs. scheduled; the software lines of code (SLOC) counts are used to determine progress during the coding phase; and the execution of test cases as well as trouble reports are monitored during the integration and test phase. Further, a software complexity product metric is collected which demonstrates the testability of the code and is an important criterion for software certification. These software metrics are used to quantify the quality and progress of each software product's development over time. Additionally, JTN employs Earned Value Metrics to monitor contract performance on its Prime Development Contracts.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Architecture Development and Validation, Evolve and Provide CM Mgmt of SCA	WR	Johns Hopkins:Laurel, MD	2.350	0.325	Dec 2012	0.000		0.000		-		0.000	0.000	2.675	Continuing
Wideband Networking Waveform (WNW)	C/CPAF	BOEING:Huntington Beach, CA	104.094	0.000		0.000		0.000		-		0.000	0.000	104.094	104.094
Soldier Radio Waveform (SRW)	C/CPIF	ITT:Clifton, NJ	92.669	0.000		0.000		0.000		-		0.000	0.000	92.669	91.470
Mobile User Objective System (MUOS)	C/CPIF	Lockheed Martin:Sunnyvale, CA	132.235	46.648	Aug 2012	0.000	Mar 2013	0.000		-		0.000	0.000	178.883	149.159
Joint Airborne Networking -Tactical Edge (JAN-TE) Development	C/CPFF	Rockwell Collins:Cedar Rapids, IA	42.464	23.705	Sep 2012	0.000		0.000		-		0.000	0.000	66.169	Continuing
Legacy Software-Defined Radio Waveforms	Various	Various:Various	51.422	5.055	Oct 2011	5.368	Dec 2012	0.000		-		0.000	0.000	61.845	Continuing
Network Enterprise Services Development	C/CPIF	ITT:Clifton, NJ	61.335	0.000		0.000		0.000		-		0.000	0.000	61.335	61.072
Network Enterprise Services Development	Various	BOEING:Huntington Beach, CA	218.878	29.064	Oct 2011	13.679	Mar 2013	0.000		-		0.000	0.000	261.621	Continuing
Network Enterprise Services Development	Various	RCI:Cedar Rapids, IA	21.798	0.000		0.000		0.000		-		0.000	0.000	21.798	32.287
Post FQT / Software Sustainment	Various	ITT:Clifton, NJ	0.332	0.044	Mar 2012	0.000		0.000		-		0.000	0.000	0.376	6.148
Post FQT / Software Sustainment	Various	RCI:Cedar Rapids, IA	0.716	0.000		0.000		0.000		-		0.000	0.000	0.716	1.297
Post FQT / Software Sustainment	Various	BAE:Wayne, NJ	0.000	0.305	Mar 2012	0.000		0.000		-		0.000	0.000	0.305	Continuing
Post FQT / Software Sustainment	Various	BAH:McLean, VA	0.000	0.000		1.146	Dec 2012	0.000		-		0.000	0.000	1.146	9.991
Post FQT / Software Sustainment	Various	LANT:Charleston, SC	2.172	0.000		0.000		0.000		-		0.000	0.000	2.172	4.805
Certification (Interim SCA Compliance Testing)	MIPR	NSA:Ft. Meade, MD	16.004	2.715	Jan 2012	1.035	Dec 2012	0.000		-		0.000	0.000	19.754	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3076: *JTRS Network Enterprise Domain (JNED)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Post FQT/ Software Sustainment	WR	PAC:San Diego, CA	0.000	2.000	Jul 2012	16.107	Oct 2012	0.000		-		0.000	0.000	18.107	
Post FQT/ Software Sustainment	MIPR	JITC:Fort Huachuca, AZ	0.000	0.000		0.063	Oct 2012	0.000		-		0.000	0.000	0.063	
Post FQT/ Software Sustainment	MIPR	CERDEC:APG, MD	0.000	0.000		0.125	Oct 2012	0.000		-		0.000	0.000	0.125	
Technology Development Efforts	Various	Various:Various	0.000	0.000		4.606	Dec 2012	0.000		-		0.000	0.000	4.606	
		Subtotal	746.469	109.861		42.129		0.000		0.000		0.000	0.000	898.459	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC - MITRE Technical Support	MIPR	MITRE:Ft. Monmouth, NJ	7.930	0.415	Oct 2011	0.000	Oct 2012	0.000		-		0.000	0.000	8.345	Continuing
JTN Engineering/Technical Support	Various	Various:Various	0.000	25.544	Oct 2011	12.114	Oct 2012	0.000		-		0.000	0.000	37.658	Continuing
		Subtotal	7.930	25.959		12.114		0.000		0.000		0.000	0.000	46.003	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	SRA / SSC PAC / SSC LANT:San Diego, CA / San Diego, CA / Charleston, SC	232.367	10.320	Nov 2012	4.834	Mar 2013	0.000		-		0.000	0.000	247.521	Continuing
Joint Airborne Networking -Tactical Edge (JAN-TE) PMO	C/CPFF	RCI:Cedar Rapids, IA	0.000	1.050	Dec 2012	0.000		0.000		-		0.000	0.000	1.050	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Workforce Fund	C/FP	Not Specified:Not Specified	1.030	0.000		0.000		0.000		-		0.000	0.000	1.030	1.030
		Subtotal	233.397	11.370		4.834		0.000		0.000		0.000	0.000	249.601	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	987.796	147.190		59.077		0.000		0.000		0.000	0.000	1,194.063	

Remarks

Remarks: PYs column only reflects prior year Navy JNED costs for FY07-FY11. Prior to FY07, funding for JNED resided in Army PE 0604280A, Project 162. In FY12-FY13, Project No. 3076 represents the total JTRS NED RDT&E budget. In FY14-18, Program Element (PE) 0604280N no longer includes funding associated with the JTRS Programs. In accordance with the ADM dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to Military Department-managed programs. The continuing Joint Tactical Networks (JTN) (formally known as JNED) will remain under a joint budget strategy in the three Services in new PEs (Army PE 0605030A, the Navy PE 0605030N, and the Air Force PE 0605030F). As part of the JTRS joint program budget strategy, each Military Department (MILDEP) budgets for approximately one-third of the total program RDT&E funds. Prior to the year of execution the funding is consolidated in the Army PE.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 3078: *Digital Modular Radio*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3078: *Digital Modular Radio*	0.000	4.387	3.767	0.000	-	0.000	0.000	4.997	1.999	0.000	0.000	15.150
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Digital Modular Radio (including DMR High Frequency Distributed Amplifier Group (HF DAG) previously funded under Project 3073.
FY16-17 funding added for the development of DMR High Frequency Automatic Link Establishment (HF ALE).

A. Mission Description and Budget Item Justification

The Digital Modular Radio (DMR), AN/USC-61(C), is the first software defined radio to have become a communications system standard for the U.S. Military. The compact, multi-channel DMR provides multiple waveforms and multi-level information security for voice and data communications. Digital Modular Radios currently operate aboard U.S. Navy surface and subsurface vessels, fixed-sites and other Department of Defense communication platforms using frequencies ranging from 2 MHz to 2 GHz. Certified to pass secure voice and data at Multiple Independent Levels of Security (MILS) over High Frequency (HF), Very High Frequecy (VHF), Ultra High Frequency (UHF), and Satellite Communications (SATCOM) channels, the DMR system was developed to the U.S. Navy's specifications and meets all the stringent environmental, Electromagnetic Interference (EMI) and performance requirements for use in the U.S. Fleet.
This task is to develop Integrated Waveform (IW) capability for the Digital Modular Radio (DMR) in accordance with Military Standards 188-181,2,3. IW uses a Time Division Multiple Access (TDMA) communication system in an attempt to improve satellite bandwidth utilization over legacy SATCOM waveforms. This enables demand assigned services on UHF SATCOM networks to support new applications that require better performance and higher channel throughput. Funding in FY16-17 is to provide DMR with HF Automatic Link Establishment (ALE) Generation 3.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: DMR	4.387	3.767	0.000
Articles:	0	0	
Description: Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion.			
FY 2012 Accomplishments: Conducted DMR Integrated Waveform (IW) capability development and testing.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Complete DMR Integrated Waveform (IW) capability development and testing.			
Accomplishments/Planned Programs Subtotals	4.387	3.767	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/3010: *Shipboard Tactial Comms*	1.494	0.000	0.000		0.000	3.973	6.050	9.007	17.918	0.000	38.442

Remarks

D. Acquisition Strategy

The evolutionary acquisition strategy for the DMR program commenced in November 1996 with a Sources Sought Synopsis being released.

After the evaluation of industry proposals by the Space and Naval Warfare Systems Command (SPAWAR) Technical Evaluation Board (TEB), two multiple award FFP/IDIQ contracts were awarded. One contract was awarded to Raytheon E-Systems Incorporated and the other to Motorola Wireless Information Transfer Systems (now General Dynamics C4 Systems (GDC4S)).

Two delivery orders, one to each vendor, were issued to deliver four Service Test Models (STMs) from each vendor. Extensive Government laboratory Developmental Testing (DT) was conducted on the STMs to determine which vendor proposed the superior DMR product. The Government concluded that, based on the results from the DT, the Motorola DMR was the best value for the Navy and an order for DMR production quantities was issued to Motorola.

Due to the fact that GDC4S owns the technical data rights to the DMR, they are the only contractor with the unique capabilities and technical know how to perform the required IW upgrade work. This scope will be issued to GDC4S as an option under the sole source contract, N00039-10-C-0069, as authorized by SPAWAR J&A No. 16,351, signed 5 January 2010 by the Assistant Secretary of the Navy (ASN), Research, Development and Acquisition (RD&A).

E. Performance Metrics

MIL-STD conformance to meet JITC Certification for IW/UHF SATCOM waveform.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IW Development	C/CPIF	GDC4S:Scottsdate, AZ	0.000	4.387	Sep 2012	3.767	Nov 2012	0.000		-		0.000	0.000	8.154	
		Subtotal	0.000	4.387		3.767		0.000		0.000		0.000	0.000	8.154	

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	4.387		3.767		0.000		0.000		0.000	0.000	8.154	

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	4.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.000
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

JTRS is the Department of Defense (DoD) family of common software-defined programmable radios that will form the foundation of information radio frequency transmission for Joint Vision 2020. The JTRS family of products will be multifunctional, multiband, multimode, network capable, capable of providing communications through a range of low probability of intercept, low probability of detection and anti-jam waveforms. JTRS products will provide transformational communication capabilities for the warfighter. JTRS is intended to support communications readiness and mission success, in the 2 Megahertz (MHz) to 2 Gigahertz (GHz) operating frequency range, by providing military commanders with the ability to command, control and communicate with their forces via secure voice/video/data media forms. JTRS products are hardware-configurable and software-programmable radio systems that provide increased interoperability, flexibility and adaptability to support varied mission requirements.

Following a Critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013
Congressional Add: GMR JTRS (Cong)	4.000	-
FY 2012 Accomplishments: Conducted close out of the System Development and Demonstration (SDD) contract. Activities include: identifying critical deliverables such as hardware, design specifications, instrumentation, modeling tools, simulators, etc. for delivery to the Government. Achieved National Security Agency (NSA) Type 1 Certification.		
Congressional Adds Subtotals	4.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*

D. Acquisition Strategy

This is Congressional transfer funding associated with Project 3074, GMR JTRS. Acquisition strategy is the same as that project. Following a Critical Nunn McCurdy breach the USD AT&L conducted a reassessment of the GMR program. Conclusions of the reassessment did not support certification of the program, thereby cancelling the program. In accordance with the ADM dated 14 October 2011, the GMR program office was directed to conduct an orderly shutdown of the existing GMR System Development and Demonstration contract which expired on 30 March 2012.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTRS GMR SDD	C/CPAF	BOEING:Huntington Beach, CA	0.000	4.000	Mar 2012	0.000		0.000		-		0.000	0.000	4.000	4.000
		Subtotal	0.000	4.000		0.000		0.000		0.000		0.000	0.000	4.000	4.000

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	4.000		0.000		0.000		0.000		0.000	0.000	4.000	4.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*		R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*

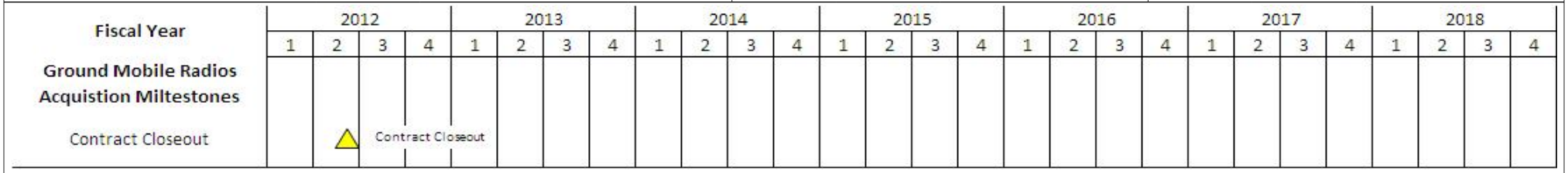


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604280N: *JT Tact Radio Sys (JTRS)*	PROJECT 9999: *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 9999				
Contract Closeout	2	2012	2	2012

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604307N: *Surface Combatant Cmbt Sys Eng*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	2,480.437	211.968	260.616	240.298	-	240.298	204.919	317.664	220.464	245.454	Continuing	Continuing
1447: *Surf Combatant Combat System Imp*	2,480.437	211.968	260.616	236.528	-	236.528	195.914	312.413	217.682	243.334	Continuing	Continuing
3357: *Aegis Training Improvement Program*	0.000	0.000	0.000	3.770	-	3.770	9.005	5.251	2.782	2.120	Continuing	Continuing
MDAP/MAIS Code(s): 180												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project provides Cruiser and Destroyer AEGIS Combat System (ACS) upgrades and integrates new equipment and systems to pace the threat and capture advances in technology. Examples of captured advanced technologies are: fiber optics, distributed architecture, and high performance computing, all of which require corresponding AEGIS Weapon System (AWS) and ACS changes.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	223.217	260.616	253.166	-	253.166
Current President's Budget	211.968	260.616	240.298	-	240.298
Total Adjustments	-11.249	0.000	-12.868	-	-12.868
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-5.700	0.000			
• SBIR/STTR Transfer	-5.549	0.000			
• Program Adjustments	0.000	0.000	-11.264	-	-11.264
• Rate/Misc Adjustments	0.000	0.000	-1.604	-	-1.604

Change Summary Explanation

Programmatic changes are primarily associated with future ACB development reductions.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604307N: *Surface Combatant Cmbt Sys Eng*	PROJECT 1447: *Surf Combatant Combat System Imp*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1447: *Surf Combatant Combat System Imp*	2,480.437	211.968	260.616	236.528	-	236.528	195.914	312.413	217.682	243.334	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project provides Cruiser & Destroyer ACS upgrades and integrates new equipment and systems to pace the threat and capture advances in technology. Examples of captured advanced technologies are: fiber optics, distributed architecture, and high performance computing, all of which require corresponding AWS and ACS changes. The ACS capabilities have continually evolved. Baseline (BL) 2 on Guided Missile Cruisers (CG) 52-58 introduced the Vertical Launch System (VLS), Tomahawk Weapon System, and Anti-Submarine Warfare (ASW) upgrades. BL 3 (CG 59-64) introduced the AN/SPY-1B Radar, AN/UYQ-21 consoles, and AN/UYK-43 computers. BL 4 (CG 65-73) introduced the production of AN/UYK-43/44 computers with superset computer programs developed for the Guided Missile Destroyer (DDG) 51. BL 5 was introduced in FY1992 DDGs and included the Joint Tactical Information Distribution System (JTIDS), Tactical Data Information Link (TADIL)-16, C2P, Combat Direction Finding, Tactical Data Information Exchange System, AN/SLQ-32 (V)3 Active Electronic Counter Countermeasures, and AEGIS Extended-Range (ER) Missile. BL 5 was developed in two steps (Phase 1 and Phase 3): Phase 1 integrated AEGIS ER and supported the Missile Initial Operating capability; Phase 3 integrated system upgrades including Defensive Electronic Attack, Track Load Control Algorithms, and Track Initiation Processor (integrated on BL 5 Phase 3, DDGs 68+); JTIDS and the OJ-663 color display Tactical Graphics capability into the ACS. BL 5 Phase 3 is now resident on baseline 3 and 4 CGs and DDG 51-78. BL 6 Phase 1 introduced Commercial Off-The-Shelf (COTS), Fiber Data Distribution System (FDDI) Local Area Network (LAN), UYQ-70 consoles, Cooperative Engagement Capability (CEC) for CGs, and an adjunct COTS computer for Aegis Display System (ADS). It supported OPEVAL of CEC in CGs 66 and 69 and was introduced in the DDG 51 class beginning with DDG 79. BL 6 Phase 1 is now resident on CGs 59, 65, 66, 68, 69, and 71. BL 6 Phase 3 was introduced on DDGs 85-90 and was back-fitted onto DDGs 79-84. BL 6 Phase 3 upgrades included embarked helicopters, Fiber Optic Data Multiplexing System (FODMS), implementation of affordability initiatives, adjunct computers for all AWS elements, CEC for DDGs and Battle Force Tactical Trainer (BFTT), ADS, Evolved Sea Sparrow Missile (ESSM) upgrades Phase 1, Advanced Tomahawk Weapon Control System (ATWCS) Phase II, Fire Control System Upgrades, and Joint Maritime Command Information System (JMCIS). BL 7 Phase 1 is installed in the DDG 51 class beginning with DDG 91-102. Major BL 7 upgrades include but are not limited to introduction and integration of new radar (AN/SPY-1D(V) upgrade), replacement of all UYK-43 and adjunct computers with a COTS-based advanced computing infrastructure, AN/SQQ-89(V)15, and the Remote Mine Hunting System. BL 7P1R (DDG 103-112) upgraded the computing infrastructure, Close-in Weapon System (CIWS), Air Control, and introduced Open Architecture (OA) developed products into the baseline.

The Modernization Baselines will provide new technology to replace aging military equipment, extend service life, and maintain viability of AEGIS combatants into the future. These baselines reduce combat system maintenance life cycle costs and streamline the development of capabilities. ACB08/TI08 (Cruiser Modernization) consists of an upgraded computing infrastructure and AEGIS BL 8 computer program enhancements to existing warfighting capabilities on CG 52-58. ACB12/TI12 (Aegis Modernization) consists of an upgraded computing infrastructure and AEGIS BL 9A/C computer program enhancements to provide increased warfighting

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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capabilities which will modernize CG 59-73 and DDG 51-78. AEGIS BL 9A/C/D Destroyer upgrades will consist of Naval Integrated Fire Control-Counter Air (NIFC-CA), Standard Missile Block 6 (SM-6), Common Display System (CDS), Common Processing System (CPS), Multi-Mission Signal Processor (MMSP), and Ballistic Missile Defense (BMD). AEGIS BL 9A Cruiser Upgrades will consist of NIFC-CA, SM-6, CDS, and CPS. AEGIS BL 7.2 will develop a computer program that will port into the BL 7.1.3 and BL 7.1R hardware configurations to address fleet-reported deficiencies related to sustainability, maintainability, interoperability, and stability on DDGs 91-112. Accelerated Mid-Term Interoperability Improvement Plan (AMIIP) provides computer program updates to address design issues specific to interoperability in Shipboard Gridlock System/Auto-correlator (SGS/AC) and Aegis BL 6.3, 7.1.3, 7.1R, 8.1 and 9A/C/D. ACB16/TI16 will provide warfighter upgrades to AEGIS Destroyers to include Ballistic Missile Defense (BMD), Standard Missile Integration, and other enhancements to address emerging threats. Increase Fleet Firing events to validate Aegis Combat System updates and enhancements.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: AEGIS DEVELOPMENT SUPPORT	35.064	36.668	46.582
Articles:	0	0	0

FY 2012 Accomplishments:
Provided AEGIS development support for the following: CSEDS, Program Generation Center, and Computer Program Test Site (CPTS) in support of AEGIS computer program development, testing, and integration for all AWS products. Continued to provide systems engineering for labs and field activities (to include support services) and provide program management support, modeling & simulation, requirements management, warfighting capability integration impacts, and conceptual studies. Provided computer program license funding to support land-based test site installation, development, and test efforts. Provided COTS issue resolution to support in-service AEGIS Ships and address computer program modification to enable integration of replacements parts. AEGIS development support in FY12 is primarily for AEGIS BL 9A/C/D, AEGIS BL 6.3, AEGIS BL 7.2, and future combat system development efforts. Provided system engineering efforts to review and award AEGIS competitive contract to support future development efforts.

FY 2013 Plans:
Plan to provide AEGIS development support for the following: CSEDS, Program Generation Center, and CPTS in support of AEGIS computer program development, testing, and integration for all AWS products. Continue to provide systems engineering for labs and field activities (to include support services) and provide program management support, modeling & simulation, requirements management, warfighting capability integration impacts, and conceptual studies. Provide computer program license funding to support land-based test site installation, development and test efforts. Provide COTS issue resolution to support in-service AEGIS Ships and address computer program modification to enable integration of replacements parts. AEGIS development support in FY13 is primarily for AEGIS BL 9A/C/D, AEGIS BL 6.3, AEGIS BL 7.2, and future combat system development efforts.

FY 2014 Plans:
Plan to provide AEGIS development support for the following: CSEDS, Program Generation Center, and CPTS in support of AEGIS computer program development, testing, and integration for all AWS products. Continue to provide systems engineering

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
for labs and field activities (to include support services) and provide program management support, modeling & simulation, requirements management, warfighting capability integration impacts, and conceptual studies. Provide computer program license funding to support land-based test site installation, development and test efforts. Provide COTS issue resolution to support in-service AEGIS Ships and address computer program modification to enable integration of replacements parts. AEGIS development support in FY14 is primarily for AEGIS BL 9A/C/D, AEGIS BL 6.3, AEGIS BL 7.2, and future combat system development efforts. Increase Fleet Firing events to validate Aegis Combat System updates and enhancements.			
Title: ADVANCED CAPABILITY BUILD 08 ***Articles:*** ***FY 2012 Accomplishments:*** Address critical computer program discrepancies related to upgraded capabilities integrated within the AEGIS B/L 8 combat system configuration.	0.700 0	0.000	0.000
Title: TECHNOLOGY INSERTION 12 ***Articles:*** ***FY 2012 Accomplishments:*** Continued to provide system engineering required for integration of COTS technology including CDS, CPS, and other COTS hardware associated with the AEGIS Weapon System. Continued to support system engineering review Test Readiness Review (TRR), System Functional Test (SFT), and Build 9 Mission Readiness Assessment (MRA). Continued to support ACB12 system engineering to developed and integrated increased capabilities. Continued computer program development efforts related to AEGIS ACB12. Continued testing and integration of AEGIS ACB12 capabilities identified. ***FY 2013 Plans:*** Continue systems engineering support to ACB12 developed and integrated capabilities. Continue computer program development efforts related to AEGIS ACB12. Continue testing and integration of AEGIS ACB12 capabilities identified. Support Build 11 and 13 MRA. Execute AEGIS Weapon System demonstration to support system level testing. ***FY 2014 Plans:*** Continue systems engineering efforts to support ACB12 integration.	1.721 0	1.473 0	0.900 0
Title: ADVANCED CAPABILITY BUILD 12 (BL 9A/C) ***Articles:*** ***FY 2012 Accomplishments:*** Continued to provide system engineering to support B/L 9A/C Aegis Light-Off/System Functional Test (ALO/SFT), IRD CG 60, CG 62, DDG 53, and MRA for Build 9. Continued to support ACB 12 system engineering to develop and integrate capabilities.	73.724 0	125.010 0	54.900 0

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continued computer program development efforts related to AEGIS B/L 9A/C. Continued testing and integration of AEGIS ACB 12 identified capabilities. Executed AEGIS Weapon System evaluations to support system level testing. ***FY 2013 Plans:*** Continue to provide system engineering to support Build 11 MRA, B/L 9A/C Demonstration, and underway test events on CG 62, CG 60, and DDG 53. Continue to support ACB 12 system engineering to develop and integrate increased capabilities. Continue computer program development efforts related to AEGIS B/L 9A/C. Continue testing and integration of AEGIS ACB 12 identified capabilities. Provide additional Post-availability Underway testing events to evaluate and correct B/L 9A/C Computer Program. Provide additional Combat System suite procurement to support AEGIS ACB 12 development and integration efforts. Equipment suite include MMSP, CDS, CPS, Mission Critical Enclosure (MCE), and other network switches to support development testing. ***FY 2014 Plans:*** Continue to provide systems engineering, integration, and test support to AEGIS BL 9A/C. Support build 13 MRA and computer program updates to support AEGIS combat system and weapon system certification efforts and Combat System Qualification Tests (CSSQTs) for CG 62, CG 60, DDG 53, and B/L 9A Operational Testing. Complete procurement of AEGIS weapon system elements to support future capability upgrades and enhancements.			
Title: ADVANCED CAPABILITY BUILD 12 (BL 9D)	24.510	34.440	33.370
Articles:	0	0	0
FY 2012 Accomplishments: Continued code capture and commence computer program development, commenced system test to evaluate DDG 113 configuration. Conducted Computer Program Increment Reviews (CPIRs) No. 3 in 0ct 2011 and No. 4 in Feb 2012 to monitor the development and integration of DDG 113 combat system configuration. Supported Production Readiness Review (PRR) related to the DDG 113 Combat System. Continue to develop SPY-1D (V) Radar interface to the MMSP. ***FY 2013 Plans:*** Continue computer program development and system test required to evaluate DDG 113 configuration. Continue to develop SPY-1D (V) Radar interface to the MMSP. Support Continous Joint Assessment of Maintainability (CJAM), Jamming Exercise (JAMEX), and endurance testing related B/L 9 New Construction IAMD DDG. Begin BMD integration testing. Improve maintainability with Operational Readiness Test System (ORTS) Enhancements. Conduct Computer Program Increment Review (CPIRS) #6 (APR 2013) and #7 (AUG 2013) to approve code implementation. ***FY 2014 Plans:*** Continue computer program development and system test as required to evaluate DDG 113 unique configuration. Continue to develop SPY-1D (V) Radar interface to the MMSP. Support CJAM, JAMEX, and endurance testing related B/L 9 New			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Construction IAMD DDG. Begin BMD integration testing. Execute any actions from readiness reviews as they relate to the DDG 113 Combat System.			
Title: NAVAL INTEGRATED FIRE CONTROL-COUNTER AIR	10.844	8.826	0.000
Articles:	0	0	
FY 2012 Accomplishments: Continued to support NIFC-CA development and integration within the AEGIS ACB12 combat system configuration. Upgrade White Sands Missile Range (WSMR) site to support NIFC-CA and SM6 integration within the AEGIS ACB12 combat system. Conduct Joint Land-Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) Demonstration and WSMR Testing to evaluate the development and integration of the NIFC-CA capability.			
FY 2013 Plans: Continue to support NIFC-CA development and integration within the AEGIS ACB12 combat system configuration. Maintain WSMR site to support NIFC-CA and SM6 integration within the AEGIS ACB12 combat system. Support NIFC-CA test events at WSMR and evaluate test results. Support NIFC-CA at-sea test.			
Title: AEGIS BASELINE 7.2	19.500	18.500	22.900
Articles:	0	0	0
FY 2012 Accomplishments: Completed IPRs Nos. 1, 2, and 3. Provided engineering effort to develop work package definition, identify specification changes, and define design information to port the AEGIS B/L 7.2 Computer Program into the AEGIS B/L 7.1.3 and B/L 7.1R Hardware configurations; addressed fleet reported deficiencies related to sustainability, maintainability, interoperability, and stability. Provided New Jersey site upgrades and initiated Virginia site upgrades to support development and test efforts related to AEGIS B/L 7.2. Initiated computer program development.			
FY 2013 Plans: Develop production engineering change proposals. Conduct IPR No 4. Continue computer program development. Continue developmental program test and integration efforts. Initiate Navy Performance Testing, and interoperability testing in conjunction with Accelerated Midterm Interoperability Improvement Project program. Initiate program Certification Assessments. Continue Virginia site upgrades to support development and test efforts, and initiate Work Package and Technical Documentation development.			
FY 2014 Plans: Conduct IPR No 5. Complete computer program development, Navy Performance testing, Certification Assessments, and Work Package and Technical Documentation development. Conduct Navy Link test, Joint Link test, Integrated Logistic Support			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Certification, deployment Software System Safety Technical Review Panel/ Weapon System Explosive Safety Review Board, Combat System Certification Panel, Warfare System Installation Assessments, and BL 7.2 installation on lead ship.			
Title: FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION	18.745	29.399	48.131
Articles:	0	0	0
FY 2012 Accomplishments: Conducted FY12 Air Missile Defense Radar (AMDR) Combat System Integration In-Process Review (IPR) #1 of Combat System architectures, requirements and interfaces required for AMDR MS B; conducting critical studies in support of interface definition and AMDR PDR; identified Combat System Simulation concepts for Early Combat System Integration and Test required for AMDR MS C; development of Combat System Test Strategy underway.			
FY 2013 Plans: Conducted Air Missile Defense Radar (AMDR) Combat System Integration IPR #2; develop draft AMDR Combat System Interface Requirement Specifications (IRSs); support AMDR delta PDR; develop requirements and hold SFR for Combat System Simulator for Early Combat System Integration and Test required for AMDR MS C.			
FY 2014 Plans: Conduct AMDR CS Integration IPR #3; complete AMDR Combat System IRSs; support AMDR CDR; conduct detailed design and software development for Combat System Simulator to support Early Combat System Integration and Test required for AMDR MS C; Above Water Sensor Coordinator (AWSC) requirements and architecture definition.			
Title: ACCELERATED MID-TERM INTEROPERABILITY IMPROVEMENT PLAN (AMIIP)	27.160	6.300	1.900
Articles:	0	0	0
FY 2012 Accomplishments: Conducted Engineering Assessments No. 2 and No. 3, defined Specification Changes, developed scenarios, and reported metrics. Captured AMIIP builds into B/Ls 7.2 and 9A/C/D, verified and validated Computer Program Casuality Reports (CPCRs), conducted (mini) IPR#3, conducted Test Readiness Review, and conducted Flag Review #3. Conducted Multi-Site Test events #1, #2, and data analysis; conducted IPR No. 4, Flag Review #4, Mission Readiness Assessment. AMIIP efforts to date will culminate with final testing and demonstration during the Trident Warrior Fleet exercise completed August/4Q FY12.			
FY 2013 Plans: Conduct Engineering Assessment No. 4. Identify and make corrections in AEGIS and Ship Gridlock System (SGS) Auto Correlator (AC) computer programs based on Trident Warrior test results, conduct Multi-Site test event No. 3 with analysis, and certify for fielding the Aegis Combat Systems computer programs 6.3.3.0, 7.1R.1.0, and 8.1.2.0.			
FY 2014 Plans:			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue to support AEGIS Weapon System computer programs 6.3.3.0, 7.1R.1.0, and 8.1.2.0.throughout installation and test period. Evaluate and resolve critical discrepancies with the AEGIS combat system discovered during installation and testing. SSDS B/L 6 scheduled to certify for fielding third quarter FY14 (June).			
Title: ADVANCED CAPABILITY BUILD 16	0.000	0.000	27.845
Articles:			0
FY 2014 Plans: Provide program management and system engineering support to ACB 16/TI 16 program development. Prepare for and conduct the government led ACB 16 System Requirements Review (SRR) scheduled for November 2013. Complete development of ACB 16 System Spec (A-Spec), System Subsystem Description Document (SSDD) and other SRR required artifacts, coordinate Navy Review Teams and lead the ACB 16 SRR. Conduct post-SRR clean-up activities and prepare for System Funtional Review (SFR). Work with CSEA to refine requirements and system architecture. Review CSEA developed artifacts for SFR (March 2014) and participate in the SFR. Work with the CSEA in requirements and architecture decomposition in preparation for a first quarter FY 15 PDR. Continue system engineering, equipment development and test, and procurement activities for TI 16.			
Accomplishments/Planned Programs Subtotals	211.968	260.616	236.528

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• R&D 0604501N: *Multi Mission Signal Processor*	23.282	14.617	14.795		14.795	15.856	16.290	16.545	16.797	Continuing	Continuing
• SCN 2122: *DDG 51*	2,081.432	3,514.941	2,004.115		2,004.115	2,877.046	3,443.611	3,732.564	3,693.696	Continuing	Continuing
• OPN 0960: *CG Modernization*	557.563	101.000	10.539		10.539	79.058	10.992	0.000	0.000	Continuing	Continuing
• OPN 5246: *AEGIS Support Equipment*	43.148	81.614	60.129		60.129	34.871	39.498	40.394	40.876	Continuing	Continuing
• OPN 0900: *DDG Modernization*	126.373	452.371	285.994		285.994	517.265	469.890	530.225	801.286	Continuing	Continuing
• R&D 0604378N PU 3159: *NIFC-CA*	28.279	39.974	21.413		21.413	21.414	25.503	21.190	17.275	Continuing	Continuing

Remarks

D. Acquisition Strategy

Combat system improvements are implemented in baselines as described in the project mission statement. After the combat system is completed and tested, the computer program and associated equipment are delivered to the new construction shipbuilders and modernization shipyards where the program and equipment are

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installed and tested along with all other elements of the shipboard combat system and associated combat support systems. The computer program is a Government Furnished Equipment (GFE) deliverable to the Production Test Center for equipment test and check out. Future Combat System delivery will be provided in ACBs and Technical Insertions (TIs) using a contract to provide Combat System Engineering Agent (CSEA) services. Additional contracts will be awarded to address B/L 9A/C/D completion, Sites Management, and Future Combat System engineering efforts related to AMDR Integration and ACB16/TI16 development and test efforts.

E. Performance Metrics

Combat system development efforts will complete major development milestones.
Major Milestones for ACB12 (B/L 9A/C):
Completed Installation Readiness Decision #2 (now called CG60 IRD) third quarter of FY12.
9A Aegis Light-off (now called CG62 ALO) fourth quarter of FY12.
9C Aegis Light-off (now called DDG53 ALO) second quarter of FY13.
9A/C Demonstration 1st quarter of FY13.
9A Computer Program Acceptance Panel/Combat System Certification Panel third quarter of FY14.
9C Computer Program Acceptance Panel/Combat System Certification Panel third quarter of FY15.
Advanced Capability Build 12 CG 62 Combat System Ships Qualification Trial first quarter of FY14.
Advanced Capability Build 12 DDG 53 Combat System Ships Qualification Trial third quarter of FY14.
9A Warfare Certification fourth quarter of FY14.
9C Warfare Certification fourth quarter of FY15.

Major Milestones for B/L 9D (DDG 113):
Completed CPIR No. 3 in first quarter of FY12.
Completed Test Program Review (TPR) in first quarter of FY12
Completed CPIR No. 4 in second quarter of FY12.
TRR in first quarter of FY15.
CPIR No. 5 in second quarter of FY13.
CPIR No. 6 in third quarter of FY13.
CPIR No. 7 in fourth quarter of FY13.
DDG 113 Aegis Light-Off in second quarter of FY15.
DDG 115 Aegis Light-Off in second quarter of FY15.
DDG 114 Aegis Light-Off in fourth quarter of FY15.
DDG 113/115 Sea Trials in first quarter of FY16.
DDG 116 Aegis Light-Off in fourth quarter of FY16.
DDG 113/115 CSSQT in first quarter of FY17.
CSCP certification in third quarter FY17.

Major Milestones for Aegis Baseline 7.2 (formerly 7.1R Backfit):

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Completed IPR No. 1 PDR/CDR in first quarter of FY12.
Completed IPR No. 2 Status Check in third quarter of FY12.
Completed IPR No. 3 Status Check in fourth quarter of FY12.
IPR No. 4 Status Update in third quarter of FY13.
IPR No. 5 Status Update in first quarter of FY14.
Warfare System Installation Assessment #1 in first quarter of FY14.
ILS Certification in second quarter of FY14.
Combat System Certification Panel in fourth quarter of FY14.
Warfare System Installation Assessment #2 in fourth quarter of FY14.
Initial Installation on lead ship in fourth quarter of FY14
Underway Assessment on lead ship in second quarter of FY15.

Major Milestones for Accelerated Mid Term Interoperability Improvement Plan (AMIIP):
Completed mini-IPR in first quarter of FY12.
Completed Multi-Site Test (MST) No. 1 in second quarter of FY12.
Completed IPR No. 3 in second quarter of FY12.
Completed MST No. 2 and Flag Demonstration in third quarter of FY12.
Completed IPR No. 4 in fourth quarter of FY12.
Trident Warrior in fourth quarter of FY12.
MST No. 3 in second quarter of FY13.
Final Certification in third quarter of FY13.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	SS/CPAF	Lockheed Martin:Moorestown, NJ	1,653.123	125.584	Oct 2011	154.985	Oct 2012	140.230	Oct 2013	-		140.230	Continuing	Continuing	Continuing
Systems Engineering	SS/CPFF	APL:Baltimore, MD	44.953	6.362	Oct 2011	10.705	Oct 2012	9.854	Oct 2013	-		9.854	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC:Dahlgren, VA	274.152	34.639	Oct 2011	43.865	Oct 2012	39.980	Oct 2013	-		39.980	Continuing	Continuing	Continuing
Systems Engineering	SS/CPAF	BAE Systems:Rockville, MD	36.411	3.783	Oct 2011	4.683	Oct 2012	4.294	Oct 2013	-		4.294	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC:Port Hueneme, CA	51.214	5.749	Oct 2011	7.149	Oct 2012	6.600	Oct 2013	-		6.600	Continuing	Continuing	Continuing
Systems Engineering	WR	NWAS:Corona, CA	26.651	1.140	Oct 2011	1.253	Oct 2012	1.157	Oct 2013	-		1.157	Continuing	Continuing	Continuing
Systems Engineering	WR	SPAWAR:San Diego, CA	9.399	0.370	Oct 2011	0.890	Oct 2012	0.814	Oct 2013	-		0.814	Continuing	Continuing	Continuing
Systems Engineering	WR	Various:Various	95.370	18.019	Oct 2011	19.323	Oct 2012	17.334	Oct 2013	-		17.334	Continuing	Continuing	Continuing
Award fees	SS/CPAF	Lockheed Martin:Moorestown, NJ	200.149	8.940	Oct 2011	9.306	Oct 2012	8.498	Oct 2013	-		8.498	Continuing	Continuing	Continuing
Award fees	SS/CPAF	BAE Systems:Rockville, MD	2.051	0.104	Oct 2011	0.180	Oct 2012	0.163	Oct 2013	-		0.163	Continuing	Continuing	Continuing
Award fees	SS/CPAF	Alion Science:Washington DC	1.830	0.304	Oct 2011	0.000	Oct 2012	0.000	Oct 2013	-		0.000	0.000	2.134	
Award fees	WR	Various:Various	6.878	0.788	Oct 2011	0.627	Oct 2012	0.570	Oct 2013	-		0.570	Continuing	Continuing	Continuing
		Subtotal	2,402.181	205.782		252.966		229.494		0.000		229.494			

Remarks

Various Performing Activities consist of multiple performing activities with funding for each no greater than $1 million per year. These larger performing activities include CDSA Dam Neck and NSWC/Crane.

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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	WR	Department of Interior:Boise, Idaho	37.690	0.855	Oct 2011	1.200	Oct 2012	1.103	Oct 2013	-		1.103	Continuing	Continuing	Continuing
Test and Evaluation	WR	NAVAIR:Pax River, MD	11.624	0.617	Oct 2011	0.850	Oct 2012	0.777	Oct 2013	-		0.777	Continuing	Continuing	Continuing
		Subtotal	49.314	1.472		2.050		1.880		0.000		1.880			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	SS/CPAF	Alion Science:Washington DC	22.199	1.752	Oct 2011	2.100	Oct 2012	1.936	Oct 2013	-		1.936	Continuing	Continuing	Continuing
Program Management Support	SS/CPAF	SAIC:Mclean, VA	5.836	2.962	Oct 2011	3.500	Oct 2012	3.218	Oct 2013	-		3.218	Continuing	Continuing	Continuing
DAWDF	Various	Various:Various	0.907	0.000		0.000		0.000		-		0.000	0.000	0.907	
		Subtotal	28.942	4.714		5.600		5.154		0.000		5.154			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2,480.437	211.968		260.616		236.528		0.000		236.528			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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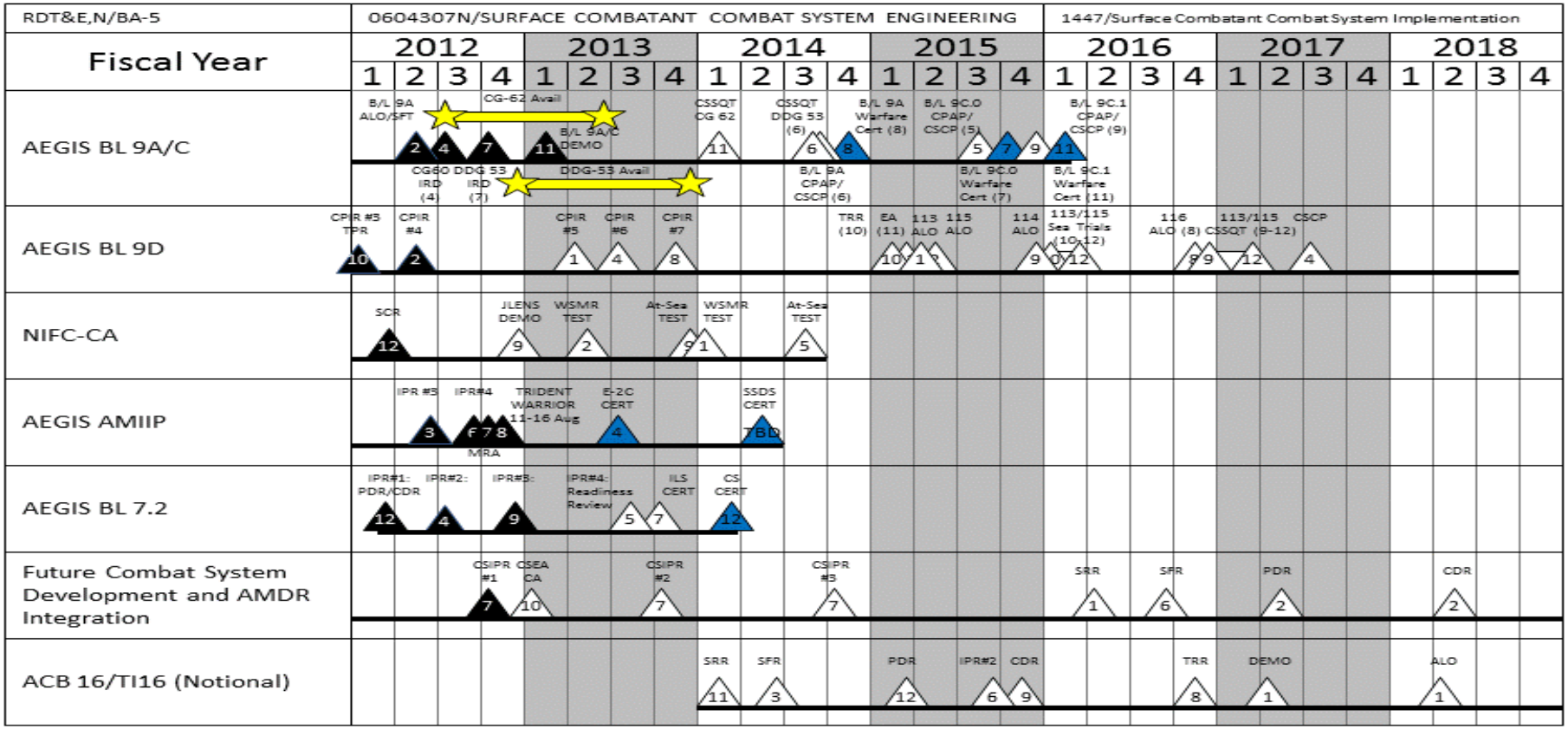


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1447				
ADVANCED CAPABILITY BUILD 12 INSTALLATION READINESS DECISION #1 (CG62 IRD)	1	2012	1	2012
ADVANCED CAPABILITY BUILD 12 INSTALLATION READINESS DECISION #2 (CG60 IRD)	3	2012	3	2012
ADVANCED CAPABILITY BUILD 12 9A CG 62 / AEGIS LIGHT OFF	4	2012	4	2012
ADVANCED CAPABILITY BUILD 12 9C DDG 53 / AEGIS LIGHT OFF	2	2013	2	2013
ADVANCED CAPABILITY BUILD 12 9 A/C DEMONSTRATION	1	2013	1	2013
ADVANCED CAPABILITY BUILD 12 9A COMPUTER PROGRAM ACCEPTANCE PANEL/COMBAT SYSTEMS CERTIFICATION PANEL	3	2014	3	2014
ADVANCED CAPABILITY BUILD 12 9C COMPUTER PROGRAM ACCEPTANCE PANEL/COMBAT SYSTEMS CERTIFICATION PANEL	3	2015	3	2015
ADVANCED CAPABILITY BUILD 12 COMBAT SYSTEM SHIPS QUALIFICATION TRIAL (CG 62)	1	2014	1	2014
ADVANCED CAPABILITY BUILD 12 9A WARFARE CERTIFICATION	4	2014	4	2014
ADVANCED CAPABILITY BUILD 12 9C WARFARE CERTIFICATION	4	2015	4	2015
ADVANCED CAPABILITY BUILD 12 B/L 9D COMPUTER PROGRAM INCREMENT REVIEW #3	1	2012	1	2012
ADVANCED CAPABILITY BUILD 12 B/L 9D TEST PROGRAM REVIEW	1	2012	1	2012
ADVANCED CAPABILITY BUILD 12 B/L 9D COMPUTER PROGRAM INCREMENT REVIEW #4	2	2012	2	2012
ADVANCED CAPABILITY BUILD 12 B/L 9D COMPUTER PROGRAM INCREMENT REVIEW #5	2	2013	2	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604307N: *Surface Combatant Cmbt Sys Eng*	PROJECT 1447: *Surf Combatant Combat System Imp*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ADVANCED CAPABILITY BUILD 12 B/L 9D COMPUTER PROGRAM INCREMENT REVIEW #6	3	2013	3	2013
ADVANCED CAPABILITY BUILD 12 B/L 9D COMPUTER PROGRAM INCREMENT REVIEW #7	4	2013	4	2013
ADVANCED CAPABILITY BUILD 12 B/L 9D TEST READINESS REVIEW	1	2015	1	2015
ADVANCED CAPABILITY BUILD 12 B/L 9D AEGIS LIGHT OFF (DDG 113 and 115)	2	2015	2	2015
ADVANCED CAPABILITY BUILD 12 B/L 9D AEGIS LIGHT OFF DDG 114	4	2015	4	2015
ADVANCED CAPABILITY BUILD 12 B/L 9D SEA TRIALS (DDG 113/115)	1	2016	1	2016
ADVANCED CAPABILITY BUILD 12 B/L 9D AEGIS LIGHT OFF DDG 116	4	2016	4	2016
ADVANCED CAPABILITY BUILD 12 B/L 9D COMBAT SYSTEM SHIPS QUALIFICATION TRIAL	4	2016	1	2017
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM MULTI-SITE TEST #1	2	2012	2	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM IN-PROGRESS REVIEW #3	2	2012	2	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM MULTI-SITE TEST #2	3	2012	3	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM IN-PROGRESS REVIEW #4	3	2012	3	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM TRIDENT WARRIOR	4	2012	4	2012
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM MULTI-SITE TEST #3	2	2013	2	2013
ACCELLERATED MID-TERM INTEROPERABILITY IMPROVEMENT PROGRAM COMBAT SYSTEM CERTIFICATION	3	2013	3	2013
AEGIS 7.2 BACKFIT IN-PROGRESS REVIEW #1 (PRELIMINARY DESIGN REVIEW/ CRITICAL DESIGN REVIEW)	1	2012	1	2012
AEGIS 7.2 BACKFIT IN-PROGRESS REVIEW #2 (STATUS CHECK)	3	2012	3	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604307N: *Surface Combatant Cmbt Sys Eng*	PROJECT 1447: *Surf Combatant Combat System Imp*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
AEGIS 7.2 BACKFIT IN-PROGRESS REVIEW #3 (STATUS CHECK)	4	2012	4	2012
AEGIS 7.2 BACKFIT IN-PROGRESS REVIEW #4	3	2013	3	2013
AEGIS 7.2 WARFARE SYSTEM INSTALLATION ASSESSMENT No.1	1	2014	1	2014
AEGIS 7.2 BACKFIT IN-PROGRESS REVIEW No. 5	1	2014	1	2014
AEGIS 7.2 ILS CERTIFICATION	2	2014	2	2014
AEGIS 7.2 COMBAT SYSTEM CERTIFICATION PANEL	4	2014	4	2014
AEGIS 7.2 WARFARE SYSTEM INSTALLATION ASSESSMENT No. 2	4	2014	4	2014
AEGIS 7.2 INITIAL INSTALLATION ON LEAD SHIP	4	2014	4	2014
AEGIS 7.2 UNDERWAY ASSESSMENT ON LEAD SHIP	2	2015	2	2015
ADVANCED CAPABILITY BUILD 16 SYSTEM REQUIREMENTS REVIEW	1	2014	1	2014
ADVANCED CAPABILITY BUILD 16 SYSTEM FUNCTIONAL REVIEW	3	2014	3	2014
ADVANCED CAPABILITY BUILD 16 PRELIMINARY DESIGN REVIEW	2	2015	2	2015
ADVANCED CAPABILITY BUILD 16 CRITICAL DESIGN REVIEW	4	2015	4	2015
ADVANCED CAPABILITY BUILD 16 TEST READINESS REVIEW	4	2016	4	2016
ADVANCED CAPABILITY BUILD 16 AEGIS LIGHT-OFF	2	2018	2	2018
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION IN-PROGRESS REVIEW #1	4	2012	4	2012
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM COMBAT SYSTEM ENGINEERING AGENT CONTRACT AWARD	1	2013	1	2013
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM IN-PROGRESS REVIEW #2	4	2013	4	2013
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM IN-PROGRESS REVIEW #3	4	2014	4	2014
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM REQUIREMENTS REVIEW	2	2016	2	2016
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION SYSTEM FUNCTIONAL REVIEW	3	2016	3	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604307N: *Surface Combatant Cmbt Sys Eng*	PROJECT 1447: *Surf Combatant Combat System Imp*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION PRELIMINARY DESIGN REVIEW	2	2017	2	2017
FUTURE COMBAT SYSTEM DEVELOPMENT AND INTEGRATION CRITICAL DESIGN REVIEW	2	2018	2	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604307N: *Surface Combatant Cmbt Sys Eng*	PROJECT 3357: *Aegis Training Improvement Program*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3357: *Aegis Training Improvement Program*	0.000	0.000	0.000	3.770	-	3.770	9.005	5.251	2.782	2.120	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The AEGIS Training Improvement project will provide enhancements to training components and increase training functionality in conjunction with AEGIS ACB16 development and integration. These enhancements will address current and future training requirements and implement new functionality to support more complex training requirements related to Underwater, Surface, and other warfighter upgrades.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: AEGIS Training Improvement and ACB 16 integration	0.000	0.000	3.770
Articles:			0
Description: AEGIS training Improvement project will provide enhancements to training components and increase training functionality in conjunction with AEGIS ACB16 development and Integration. These enhancements will address current and future training requirements and implement new functionality to support more complex training requirements related to Underwater, Surface and other warfighter upgrades. ***FY 2014 Plans:*** Support System Engineering requirements to address AEGIS ACB16 System Requirements Review (SRR) currently scheduled for the first quarter of FY14. Provides System Engineering Support to complete functional requirements allocation in support of AEGIS ACB16 System Functional Review (SFR) scheduled for the third quarter of FY14. Provide system engineering support to training improvement integration within AEGIS ACB16.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	3.770

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604307N: *Surface Combatant Cmbt Sys Eng*	PROJECT 3357: *Aegis Training Improvement Program*

D. Acquisition Strategy

Efforts will be completed on various contracts to support requirements updates to multiple products that will support Training Integration and Implementation within AEGIS ACB16.

E. Performance Metrics

Training Improvement Program efforts will complete major development milestones.

System Requirements Review first quarter of FY14.
System Functional Review third quarter of FY14.
Preliminary Design Review second quarter of FY15.
Critical Design Review fourth quarter of FY15.
Test Readiness Review fourth quarter of FY16.
Advanced Capability Build 16 AEGIS Light-Off second quarter of FY18.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604307N: *Surface Combatant Cmbt Sys Eng*	PROJECT 3357: *Aegis Training Improvement Program*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	Various	Various:Various	0.000	0.000		0.000		1.993	Oct 2013	-		1.993	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		1.993		0.000		1.993			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering	Various	Various:Various	0.000	0.000		0.000		1.497	Oct 2013	-		1.497	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		1.497		0.000		1.497			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	C/CPAF	SAIC:McLean VA.	0.000	0.000		0.000		0.200	Nov 2013	-		0.200	Continuing	Continuing	Continuing
Professional Support	C/CPAF	ALION:Washington DC	0.000	0.000		0.000		0.080	Nov 2013	-		0.080	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		0.280		0.000		0.280			

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		3.770		0.000		3.770			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604307N: *Surface Combatant Cmbt Sys Eng*	PROJECT 3357: *Aegis Training Improvement Program*



Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604307N: *Surface Combatant Cmbt Sys Eng*	**PROJECT** 3357: *Aegis Training Improvement Program*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3357				
System Requirements Review	1	2014	1	2014
System Functional Review	3	2014	3	2014
Preliminary Design Review	2	2015	2	2015
Critical Design Review	4	2015	4	2015
Test Readiness Review	4	2016	4	2016
Advanced Capability Build 16 AEGIS Light-off	3	2017	3	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604311N: *LPD-17 Class Systems Integration*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	29.669	0.858	0.824	1.214	-	1.214	0.830	0.855	0.871	0.887	Continuing	Continuing
2283: *LPD-17 Class System Integration*	29.669	0.858	0.824	1.214	-	1.214	0.830	0.855	0.871	0.887	Continuing	Continuing
MDAP/MAIS Code(s): 542												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The LPD-17 Class ships are functional replacements for 41 ships of four classes of amphibious ships. These new ships embark, transport, and land elements of Marine landing forces in an amphibious assault by helicopters, landing craft, and amphibious vehicles. Tactics, techniques, and tools for naval expeditionary warfare continue to evolve. The LPD-17 Class configuration must continue to adapt to this evolutionary process as theses ships are expected to be in service until almost 2050. The LPD-17 design includes system configurations that reduce operating and support costs and facilitate operational performance improvements. The RDT&E,N funding will be used for system engineering and integration efforts to resolve obsolescence issues facing the LPD-17 Class components, as well as develop further reductions in life cycle costs, and will integrate performance upgrades in a rapid, affordable manner. These efforts will result in well-defined specifications and drawings in system integration design packages that provide technical baselines for follow-on ship procurements. This program is funded under Engineering and Manufacturing Development because it encompasses engineering and manufacturing development of new end-items prior to production approval decision. LSD(X) moved to RDT&E,N PE 0603564N Project 2474 starting in FY12 and out.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	0.884	0.824	0.840	-	0.840
Current President's Budget	0.858	0.824	1.214	-	1.214
Total Adjustments	-0.026	0.000	0.374	-	0.374
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.026	0.000			
• Program Adjustments	0.000	0.000	0.374	-	0.374

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604311N: *LPD-17 Class Systems Integration*

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604311N: *LPD-17 Class Systems Integration*	PROJECT 2283: *LPD-17 Class System Integration*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2283: *LPD-17 Class System Integration*	29.669	0.858	0.824	1.214	-	1.214	0.830	0.855	0.871	0.887	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The LPD-17 Class ships are functional replacements for 41 ships of four classes of amphibious ships. These new ships embark, transport, and land elements of Marine landing forces in an amphibious assault by helicopters, landing craft, and amphibious vehicles. Tactics, techniques, and tools for naval expeditionary warfare continue to evolve. The LPD-17 Class configuration must continue to adapt to this evolutionary process, because these ships are expected to be in service until almost 2050. The LPD-17 design includes system configurations that reduce operating and support costs and facilitate operational performance improvements. System engineering and integration efforts that began in FY 1997 will develop further reductions in life cycle costs and will integrate performance upgrades in a rapid, affordable manner. Possible improvements include advanced sensors, advanced computers, advanced command and control software, advanced information systems technologies, and ship based logistics concepts. Cost reduction and improved performance will be accomplished through sustained modeling and simulation efforts, continued personnel reductions efforts, system performance tradeoff evaluation, and naval expeditionary warfare systems engineering. Feedback from the operational forces for integrating system configurations will be accomplished through the Naval Expeditionary Warfare Centers in Quantico, Dahlgren, China Lake, Naval Research Lab, and Little Creek, Virginia. These efforts will result in well-defined specifications and drawings in system integration design packages that provide technical baselines for follow-on ship procurements. LSD(X) moved to RDT&E,N PE 0603564N Project 2474 starting in FY2012 and out years.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Systems Engineering/Integration	0.858	0.824	1.214
Articles:	0	0	0
Description: Continuing Naval Expeditionary Warfare Systems Engineering efforts and integration efforts for unique LPD 17 Class systems, including efforts to resolve obsolescence issues impacting the class.			
FY 2012 Accomplishments: Completed Probability of Raid Annihilation (PRA) Testbed Development. Completed the training system process and GAP Analysis to identify and validate manpower and training, USMC Communication Exercise Support, LPD 17 Joint Interoperability Test Command (JITC) Certification/OPEVAL Support, Follow-on Operational Test and Evaluation (FOT&E) MARCORSYSCOM			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604311N: *LPD-17 Class Systems Integration*	PROJECT 2283: *LPD-17 Class System Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Support, Advanced Enclosed Mast/Sensor (AEM/S) Access Study, and Radar Cross-section Reduction (RCSR) Testing of Motor Gasoline (MOGAS) Rack. ***FY 2013 Plans:*** Continue the Reliability and Obsolescence studies for shipboard network/electronics/machinery systems, and Environmental Qualification Testing (EQT) for obsolescence replacements. Start Windows 7/ Operating System Migration feasibility study, and MK 46 Gun Weapon System (GWS) Reliability and Interoperability study. ***FY 2014 Plans:*** Continue Reliability and Obsolescence studies for Mission System (Hanger Bridge Crane, Improved Flight Deck Ramp Closures and CPP software/wiring studies) as well as Windows 7 Operating System migration feasibility studies. EQT is also required for new Electromagnetic Pulse/Electromagnetic Interference (EMP/EMI) cable, Ship Wide Area Network (SWAN) Switch and server cabinets, Navigational Data Distribution System (NDDS) cabinet, Ship Control System (SCS) workstation/computer, and Magnetic Signature Control System (MSCS) Bipolar Amplifier Unit (BPAU). SWAN Hull, Mechanical, and Electrical (HM&E) as a part of integrating Consolidated Afloat Networks and Enterprise Services (CANES) into the LPD-17 Class.			
Accomplishments/Planned Programs Subtotals	0.858	0.824	1.214

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN/3036: *LPD 17*	1,911.436	0.000	0.000		0.000	53.685	37.705	24.442	0.000	0.000	12,640.368
• SCN/5300: *Completion of Prior Year Shipbuilding Programs*	0.000	80.888	0.000		0.000	0.000	0.000	0.000	0.000	0.000	1,816.688

Remarks

D. Acquisition Strategy

FY12 and out: continue developmental sole source efforts

E. Performance Metrics

LPD-17 Class ships will conduct Follow On Test and Evaluation as outlined in the test and evaluation Master Plan.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604311N: *LPD-17 Class Systems Integration*	PROJECT 2283: *LPD-17 Class System Integration*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engneering and Integration	WR	NSWC Crane:Crane, IN	12.538	0.373	Dec 2011	0.358	Dec 2012	0.354	Dec 2013	-		0.354	Continuing	Continuing	Continuing
Systems Engneering and Integration	C/CPFF	Raytheon Company:San Diego, CA	0.985	0.485	Dec 2011	0.466	Dec 2012	0.860	Dec 2013	-		0.860	Continuing	Continuing	Continuing
LSD(X) Systems Integration (Next Gen.)	C/CPFF	CSC, Alion Science:Washington, DC	0.549	0.000		0.000		0.000		-		0.000	0.000	0.549	
LSD(X) Systems Integration (Next Gen.)	WR	NSWC Carderock, NSWC Dahlgren:NSWC Beth, MD; NSWC Dahlgren, VA	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	
DAWF	Various	Various:Various	0.005	0.000		0.000		0.000		-		0.000	0.000	0.005	
		Subtotal	14.177	0.858		0.824		1.214		0.000		1.214			

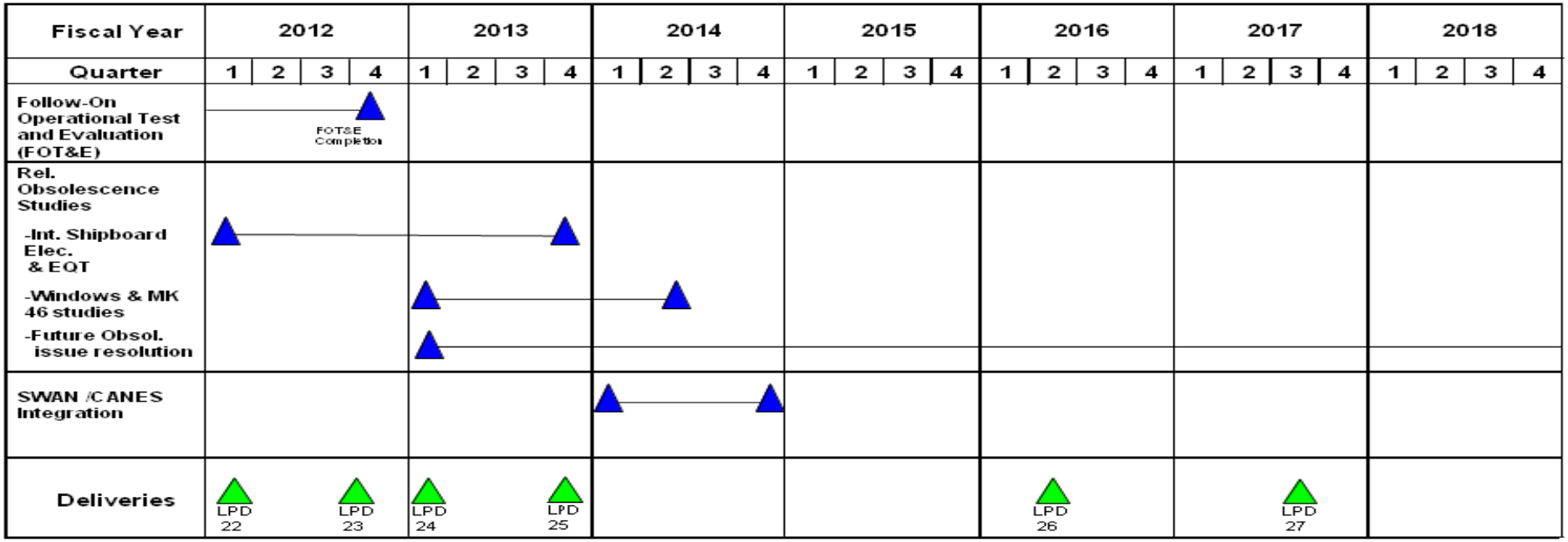
Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OT&E/Interoperability	WR	OPTEVFOR:WR	15.492	0.000		0.000		0.000		-		0.000	0.000	15.492	
		Subtotal	15.492	0.000		0.000		0.000		0.000		0.000	0.000	15.492	

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	29.669	0.858		0.824		1.214		0.000		1.214			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604311N: *LPD-17 Class Systems Integration*	**PROJECT** 2283: *LPD-17 Class System Integration*



LPD 27 Delivery is TBD

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604311N: *LPD-17 Class Systems Integration*	**PROJECT** 2283: *LPD-17 Class System Integration*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2283				
Delivery (LPD 22)	1	2012	1	2012
Delivery (LPD 23)	4	2012	4	2012
Delivery (LPD 24)	1	2013	1	2013
Delivery (LPD 25)	4	2013	4	2013
Delivery (LPD 26)	2	2016	2	2016
Delivery (LPD 27)	3	2017	3	2017
Follow-On Operational Test and Evaluation (FOT&E) Completion	1	2012	4	2012
SWAN/CANES Integration	1	2014	4	2014
Rel. Obsolescence Studies: Int. Shipboard Elec. & EQT	1	2012	4	2013
Rel. Obsolescence Studies: Windows & MK 46 Studies	1	2013	2	2014
Rel. Obsolescence Studies: Future Obsol. Issue Resolution	1	2013	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	92.713	23.188	31.064	46.007	-	46.007	53.481	58.401	72.885	74.168	133.488	585.395
3071: *Very Low Collateral Damage Weapon*	0.000	1.200	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.200
3072: *Small Diameter Bomb (SDB)*	90.759	17.906	17.792	27.265	-	27.265	33.023	45.360	63.750	68.846	129.356	494.057
3082: *JMM BRU*	1.954	4.082	13.272	18.742	-	18.742	20.458	13.041	9.135	5.322	4.132	90.138
MDAP/MAIS Code(s): 439												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Small Diameter Bomb Increment II (SDB II) is a joint program, with the Air Force (AF) as the lead service, which provides the warfighter a capability to attack mobile targets in all weather from Stand-Off range. SDB II addresses the following warfighter requirements: attack mobile targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, precision munitions capability, capability against fixed targets, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures, and provides a net-centric operations capability. The threshold aircraft for the AF is the F-15E and the threshold aircraft for the Department of Navy are the F-35B and F-35C. SDB II will be compatible with the Joint Miniature Munitions Bomb Rack Unit (JMM BRU) (BRU-61A/A).

This program is funded under System Development and Demonstration because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	29.635	31.064	48.434	-	48.434
Current President's Budget	23.188	31.064	46.007	-	46.007
Total Adjustments	-6.447	0.000	-2.427	-	-2.427
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-5.857	0.000			
• SBIR/STTR Transfer	-0.590	0.000			
• Rate/Misc Adjustments	0.000	0.000	-2.427	-	-2.427

Change Summary Explanation

Schedule: SDB II LRIP contract awards I through V slipped one year to reflect new contracting strategies. Subsequently, first Department of Navy procurement will remain in FY17, moving from Lot 5 to Lot 4, resulting in procurement cost savings.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3071: *Very Low Collateral Damage Weapon*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3071: *Very Low Collateral Damage Weapon*	0.000	1.200	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.200
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

OSD Joint Rapid Acquisition Cell directed execution of joint Precision Lethality (PL) MK-82 Quick Reaction Capability (QRC) to support Joint Urgent Operational Need (JUON) CC-0381 for a Very Low Collateral Damage Weapon (VLCDW). Provides low lethality in far field using non-fragmenting carbon fiber MK-82 form factor case to minimize collateral damage outside near field blast effect. Provides high lethality in near field using a specially tuned variant of high impulse Multi-phase Blast Explosive (MBX) similar to Small Diameter Bomb (SDB).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Very Low Collateral Damage	1.200	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: Continued bomb case loading qualification, explosive qualification, and flight clearance.			
Accomplishments/Planned Programs Subtotals	1.200	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

OSD Joint Rapid Acquisition Cell directed execution of joint PL MK-82 QRC to support JUON CC-0381 for a VLCDW.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3071: *Very Low Collateral Damage Weapon*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	Various	Various:Various	0.000	1.200	Oct 2011	0.000		0.000		-		0.000	0.000	1.200	
		Subtotal	0.000	1.200		0.000		0.000		0.000		0.000	0.000	1.200	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	1.200		0.000		0.000		0.000		0.000	0.000	1.200	

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3072: *Small Diameter Bomb (SDB)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3072: *Small Diameter Bomb (SDB)*	90.759	17.906	17.792	27.265	-	27.265	33.023	45.360	63.750	68.846	129.356	494.057
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

SDB II is an ACAT ID program providing the warfighter a capability to attack mobile targets in all weather from Stand-Off range. The Air Force is the lead service, Raytheon in Tucson, AZ is the prime contractor. SDB II addresses the following warfighter requirements: attack mobile targets, multiple kills per pass, multiple ordnance carriage, all weather operations, near-precision munitions capability, capability against fixed targets, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures, and a migration path to net centric ops capability. Threshold aircraft is the F-15E for the Air Force and the F-35B and F-35C for the Department of the Navy. Objective aircraft include the F/A-22, B-1, B-2, F-117, F-16, B-52, Predator B, and F/A-18E/F.

As a result of the Joint Strike Fighter (F-35) programs restructure, SDB II integration was moved from the JSF OFP Block 3 to Block 4. IOC is FY2020.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: SDB II Weapon Support	14.030	10.821	3.235
Articles:	80	0	0
Description: Funding provides for SDB II Engineering Manufacturing and Development (EMD) efforts including weapon vendor support, test assets, and government support. ***FY 2012 Accomplishments:*** Continued EMD support and integration of SDB II with F-35B and F-35C. ***FY 2013 Plans:*** Continue support of EMD and integration of SDB II with F-35B and F-35C. ***FY 2014 Plans:*** Continue support of EMD and integration of SDB II with F-35B and F-35C. Continue support of SDB II prime contractor and government support of weapon development efforts. Navy integration support efforts of SDB II prime contractor have moved to FY15 to accommodate the JSF Operational Flight Plan (OFP) change from Block 3 to Block 4.			
Title: JSF Integration	3.876	6.971	24.030

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3072: *Small Diameter Bomb (SDB)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:	0	0	0
Description: Funding provided for integration of SDB II on F-35B and F-35C, specifically for Lockheed Martin to develop F-35 Operational Flight Program (OFP) software, flight missions, and support and analysis of missions. ***FY 2012 Accomplishments:*** Continued F-35 OFP development and coding and supported fit checks with SDB II Weapon Vendor (Raytheon). ***FY 2013 Plans:*** Continue F-35 OFP development and coding and support fit checks with SDB II Weapon Vendor (Raytheon). ***FY 2014 Plans:*** Continue F-35 OFP development and coding and support fit checks and testing with SDB II Weapon Vendor (Raytheon). Begin software coding of Universal Armament Interface and JSF Block 4 Operational Flight Plan (OFP) and full manning of JSF prime contractor team to support SDB II weapon development.			
Accomplishments/Planned Programs Subtotals	17.906	17.792	27.265

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTE,AF/0604329F: *Small Diameter Bomb*	133.902	143.000	115.000		115.000	54.000	18.000	64.000	15.675	24.006	1,157.510
• MPAF/0207327F: *Small Diameter Bomb*	0.000	42.000	42.347		42.347	71.353	101.961	94.770	73.458	1,434.707	1,860.596
• WPN/223800: *Small Diameter Bomb*	0.000	0.000	0.000		0.000	0.000	0.000	25.543	98.502	565.100	689.145

Remarks

D. Acquisition Strategy

The SDB Increment II acquisition strategy is to conduct a full and open competition to select up to two contractors to compete during a planned 42-month risk reduction phase prior to entering Engineering, Manufacturing and Development (EMD). This competition began April 17, 2006 with the signature of contracts to the competing contractors: 1) Raytheon and 2) the team of Boeing and Lockheed Martin. A Fixed Price Incentive Firm Target type contract for EMD, including Firm Fixed Price procurement options for Lots 1-3 was awarded to Raytheon August 9, 2010. Lots 4 & 5 are included in the contract, but are Not-To-Exceed options.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3072: *Small Diameter Bomb (SDB)*

The Navy funding will support Navy-unique efforts for SDB Increment II, such as aircraft integration, ship suitability, studies and analysis, and program management and government in-house support. These efforts will be performed on several cost-type contracts or through cost reimbursable work requests to government activities and contractors.

E. Performance Metrics

Earned Value Management has been implemented on the EMD contract with Raytheon.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3072: *Small Diameter Bomb (SDB)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Aircraft Integration - JSF	C/CPFF	Lockheed Martin:Fort Worth, TX	16.960	0.000		5.166	Jun 2013	13.637	Jan 2014	-		13.637	77.874	113.637	113.637
Primary Hardware Development - SDB II EMD	C/FPIF	Raytheon:Tucson, AZ	6.181	4.654	Jan 2012	1.094	Jan 2013	0.300	Jan 2014	-		0.300	116.208	128.437	128.437
Prior year cost no longer funded in the FYDP	Various	Various:Various	15.497	0.000		0.000		0.000		-		0.000	0.000	15.497	
		Subtotal	38.638	4.654		6.260		13.937		0.000		13.937	194.082	257.571	

Remarks

Primary Hardware Development Prior Years includes McDonnell Douglas Corp and Raytheon Missile Systems Primary H/W Development for the SDB II 42-month risk reduction phase, $4.393M for Boeing/Lockheed Martin team and $4.393M for Raytheon and $2.6M for Joint Surface Warfare (JSuW) efforts with Raytheon and $4.111M for BRU-61 Shipboard Suitability efforts.

Primary H/W and Aircraft Integration to Raytheon in Tucson, AZ reflects the winning SDB II contractor and includes test assets. Funding for Lockheed Martin F-35 does not include OFP nor Test missions which are represented in Support and Test sections. Beginning FY11, funding for JMM BRU (BRU-61A/A) is included in PU3082.

Aircraft Integration contract award moved to June 2013 due to delay in RFP release.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development - JSF	C/CPFF	Lockheed Martin:Ft. Worth, TX	0.000	1.204	Aug 2012	1.505	Jun 2013	9.007	Jan 2014	-		9.007	23.182	34.898	34.898
Prior year cost no longer funded in the FYDP	Various	Various:Various	17.410	0.000		0.000		0.000		-		0.000	0.000	17.410	
		Subtotal	17.410	1.204		1.505		9.007		0.000		9.007	23.182	52.308	

Remarks

Studies and Analyses include Navy activities to define CONOPS and better define Navy-specific and interoperability requirements, such as Weapon Data Link Advanced Concept Technology Demonstration, Seeker Trade Studies, and Data Link Trade Studies. Prior year Software Development efforts are in support of JSuW Joint Capability Technology Demonstrations (JCTD) incorporation of J.11 Message Set into Strike Weapons and Weapon Data Link Network efforts. Software Development for JSF is the Universal Armament Interface (UAI), Operational Flight Plan (OFP) and mission planning which supports the SDB II program.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3072: *Small Diameter Bomb (SDB)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation - JSuW/WDLN	Various	Various:Various	2.864	0.000		0.000		0.000		-		0.000	4.058	6.922	
Operational Test & Evaluation - SDBII	WR	COMOPTEVFOR:China Lake, CA	1.010	0.000		0.000		0.000		-		0.000	16.018	17.028	
Developmental Test & Evaluation - SDB II	C/CPFF	Lockheed Martin:Ft. Worth, TX	0.000	0.000		1.322	Jun 2013	0.000		-		0.000	45.939	47.261	47.261
SDB II Weapon Test Assets	C/FFP	Raytheon:Tucson, AZ	2.060	5.989	Jan 2012	2.962	Jan 2013	0.000		-		0.000	15.239	26.250	26.250
		Subtotal	5.934	5.989		4.284		0.000		0.000		0.000	81.254	97.461	

Remarks

Developmental T&E Lockheed Martin in FY 2013 supports wind tunnel testing. Contract award moved to June 2013 due to delay in RFP release.

Developmental T&E and Operational T&E include all aspects of the weapon system - SDB II, JMM BRU, and F35 aircraft OFP. There will be no separate DT or OT period for JMM BRU.

Test assets include weapon assets required for Development Test and Operational Test.

Management Services ($ in Millions)

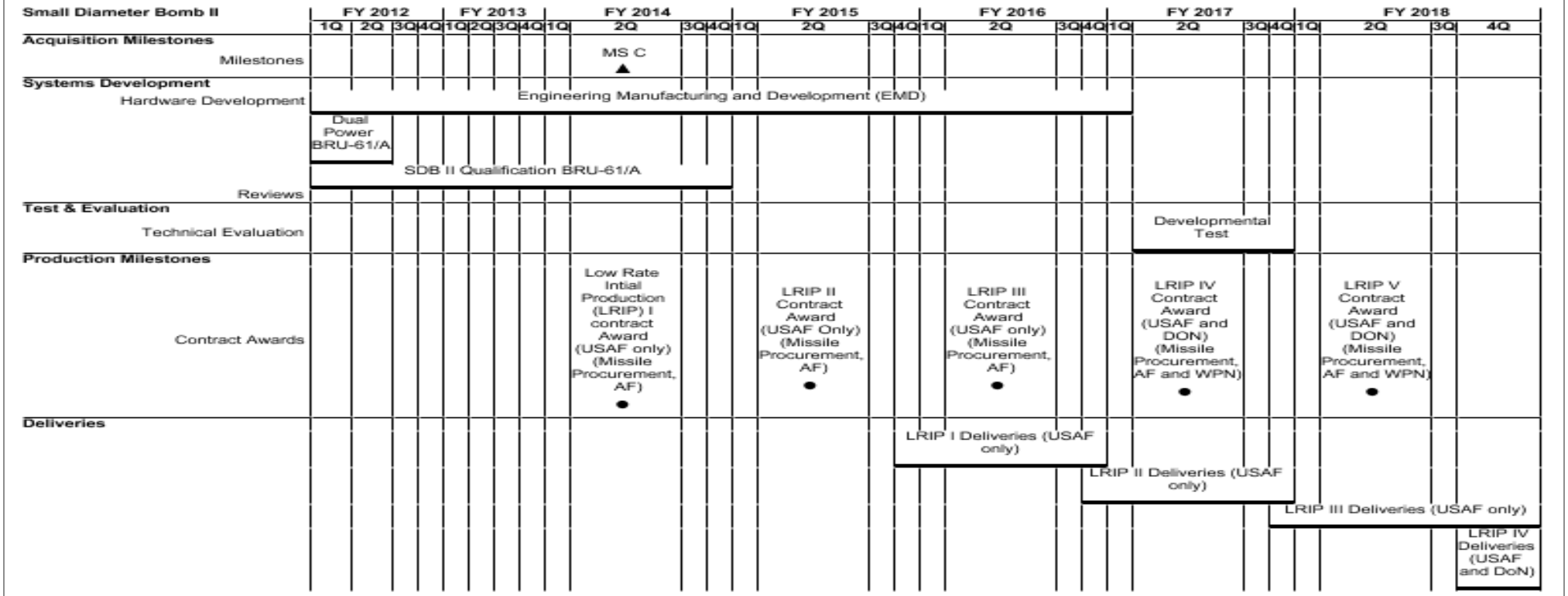
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Services	Various	Various:Various	1.099	0.297	Nov 2011	0.312	Nov 2012	0.411	Nov 2013	-		0.411	2.252	4.371	
Government Support	WR	NAWC WD:China Lake	15.706	2.666	Nov 2011	2.761	Nov 2012	2.067	Nov 2013	-		2.067	19.298	42.498	
Government Support	WR	Various:Various	7.729	0.569	Nov 2011	0.170	Nov 2012	0.250	Nov 2013	-		0.250	3.593	12.311	
Program Management Support	WR	Various:Various	2.674	2.347	Nov 2011	2.374	Nov 2012	1.500	Nov 2013	-		1.500	13.385	22.280	
Travel	MIPR	ASC20OG:Eglin AFB, FL	1.569	0.180	Oct 2011	0.126	Oct 2012	0.093	Oct 2013	-		0.093	1.400	3.368	
		Subtotal	28.777	6.059		5.743		4.321		0.000		4.321	39.928	84.828	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3072: *Small Diameter Bomb (SDB)*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	90.759	17.906		17.792		27.265		0.000		27.265	338.446	492.168	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3072: *Small Diameter Bomb (SDB)*



2014PB - 0604329N - 3072

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604329N: *Small Diameter Bomb (SDB)*	**PROJECT** 3072: *Small Diameter Bomb (SDB)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Small Diameter Bomb II				
Acquisition Milestones: Milestones: MS C	2	2014	2	2014
Systems Development: Hardware Development: Engineering Manufacturing and Development (EMD)	1	2012	1	2017
Systems Development: Hardware Development: Dual Power BRU-61/A	1	2012	2	2012
Systems Development: Hardware Development: SDB II Qualification BRU-61/A	1	2012	4	2014
Test & Evaluation: Technical Evaluation: Developmental Test	2	2017	4	2017
Production Milestones: Contract Awards: Low Rate Initial Production (LRIP) I Contract Award (USAF Only) (Missile Procurement, AF)	2	2014	2	2014
Production Milestones: Contract Awards: LRIP II Contract Award (USAF Only) (Missile Procurement, AF)	2	2015	2	2015
Production Milestones: Contract Awards: LRIP III Contract Award (USAF Only) (Missile Procurement, AF)	2	2016	2	2016
Production Milestones: Contract Awards: LRIP IV Contract Award (USAF and DoN) (Missile Procurement, AF and WPN)	2	2017	2	2017
Production Milestones: Contract Awards: LRIP V Contract Award (USAF and DoN) (Missile Procurement, AF and WPN)	2	2018	2	2018
Deliveries: LRIP I Deliveries (USAF only)	4	2015	4	2016
Deliveries: LRIP II Deliveries (USAF only)	4	2016	4	2017
Deliveries: LRIP III Deliveries (USAF only)	4	2017	4	2018
Deliveries: LRIP IV Deliveries (USAF and DoN)	4	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3082: *JMM BRU*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3082: *JMM BRU*	1.954	4.082	13.272	18.742	-	18.742	20.458	13.041	9.135	5.322	4.132	90.138
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Joint Miniature Munitions Bomb Rack Unit (JMM BRU) is an Air Force (USAF) led ACAT III program. It is required for the Department of the Navy's (DoN) carriage of the SDB II weapon in the internal bay of the F-35B and F-35C and operation in the DoN environment. The SDB II Capability Development Document states that it must be operable on the Miniature Munitions Smart Rack BRU-61/A. The BRU-61/A, currently in production in the USAF, does not meet the needs to operate with SDB II within the F-35 internal bay in the DoN environment. The JMM BRU, designated BRU-61A/A, fills the capability gap required by the DoN. Efforts include development of a dual power capability to meet the SDB II operating environment on the F-35.

SDB II and the JMM BRU integration were moved from F-35 Block 3 to Block 4. Budgets and schedules have been modified to meet the F-35 Block 4 schedule.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Joint Miniature Munitions Bomb Rack Unit (JMM BRU) Government Support	4.082	3.422	5.490
Articles:	0	0	0
Description: Funding provided for the SDB II Carriage System support and integration into Navy environments. ***FY 2012 Accomplishments:*** Supported prime contractor contract and initiated Technology Development (TD) Phase. Completed Dual Power development. ***FY 2013 Plans:*** Continue with TD Phase. ***FY 2014 Plans:*** Continue with TD Phase. Full manning of JMM BRU government team and conduct DoN logistics efforts for support equipment, specific to JMM BRU.			
Title: Joint Miniature Munitions Bomb Rack (JMM BRU) Prime Contractor	0.000	9.850	13.252
Articles:		2	5
Description: Prime Contractor Support of JMM BRU (BRU-61A/A) Technology Development (TD)/Engineering & Manufacturing Development (EMD) contract.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3082: *JMM BRU*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2013 Plans: Select Prime Contractor and awarded TD/EMD contract. Conduct source selection of JMM BRU Prime contractor and TD contract award May 2013. ***FY 2014 Plans:*** Continue TD/EMD contract. JMM BRU Prime contractor fully manned to complete TD phase, including delivering two JMM BRU prototypes, two Inertial Measurement Vehicle (IMV) BRUs, and three JMM BRU simulators in support of SDB II/JMM BRU/JSF integration efforts.			
Accomplishments/Planned Programs Subtotals	4.082	13.272	18.742

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0720: *War Consumables*	0.000	0.000	0.000		0.000	0.000	0.000	0.000	19.835	281.734	301.569

Remarks

D. Acquisition Strategy

The JMM BRU is an Air Force led ACAT III program. Industry day was held 4Q FY 2010, Acquisition Strategy approved 1Q FY2011 and Material Development Decision 2Q FY2011.

E. Performance Metrics

Earned Value Management will be implemented on the TD/EMD contract with the successful offeror for the technology demonstration contract.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3082: *JMM BRU*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Miniature Munitions Bomb Rack Unit (JMM BRU)	C/CPIF	TBD:TBD	0.000	0.000		8.926	Apr 2013	8.854	Apr 2014	-		8.854	19.337	37.117	37.117
		Subtotal	0.000	0.000		8.926		8.854		0.000		8.854	19.337	37.117	37.117

Remarks

Funding provided to the successful offerer for development of a JMM BRU SDB II carriage system which satisfies DoN environments. JMM BRU will carry four SDB II's and will be capable of being used both internally and externally.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JMM BRU Test Assets	C/CPFF	TBD:TBD	0.000	0.000		0.885	Apr 2013	4.421	Apr 2014	-		4.421	4.353	9.659	9.659
Flight Test	TBD	TBD:TBD	0.000	0.000		0.000		0.000		-		0.000	0.436	0.436	
		Subtotal	0.000	0.000		0.885		4.421		0.000		4.421	4.789	10.095	

Remarks

Funding provided to purchase JMM BRU test assets required for DT and OT. DT and OT efforts are budgeted for in the SDB II project unit as DT and OT will be for total weapon system. There will be no dedicated JMM BRU DT and OT.

Flight Test conducted will be fit checks on F-35B and F-35C with the new JMM BRU.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWC WD:China Lake, CA	0.366	1.636	Nov 2011	1.129	Nov 2012	2.161	Nov 2013	-		2.161	12.000	17.292	
Government Support	WR	Various:Various	1.548	2.396	Nov 2011	2.301	Nov 2012	3.283	Nov 2013	-		3.283	15.355	24.883	
Travel	MIPR	ASC20OG:Eglin AFB, FL	0.040	0.050	Oct 2011	0.031	Nov 2012	0.023	Oct 2013	-		0.023	0.250	0.394	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3082: *JMM BRU*	

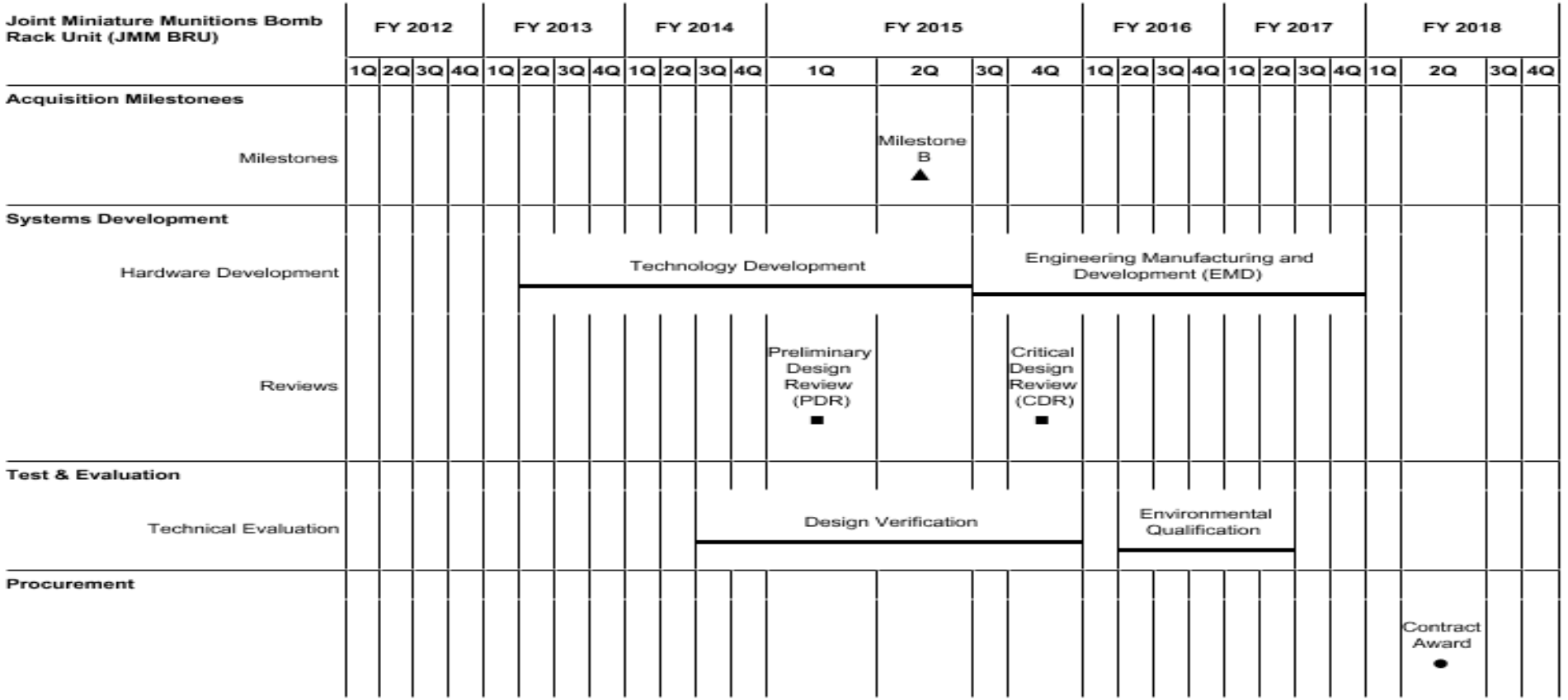
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	1.954	4.082		3.461		5.467		0.000		5.467	27.605	42.569	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.954	4.082		13.272		18.742		0.000		18.742	51.731	89.781	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3082: *JMM BRU*



2014DON - 0604329N - 3082

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604329N: *Small Diameter Bomb (SDB)*	PROJECT 3082: *JMM BRU*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Joint Miniature Munitions Bomb Rack Unit (JMM BRU)				
Acquisition Milestonees: Milestones: Milestone B	2	2015	2	2015
Systems Development: Hardware Development: Technology Development	2	2013	2	2015
Systems Development: Hardware Development: Engineering Manufacturing and Development (EMD)	3	2015	4	2017
Systems Development: Reviews: Preliminary Design Review (PDR)	1	2015	1	2015
Systems Development: Reviews: Critical Design Review (CDR)	4	2015	4	2015
Test & Evaluation: Technical Evaluation: Design Verification	3	2014	4	2015
Test & Evaluation: Technical Evaluation: Environmental Qualification	2	2016	2	2017
Procurement: LRIP 1 Contract Award	2	2018	2	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	2,022.912	55.546	63.891	75.592	-	75.592	80.042	31.159	20.002	20.355	Continuing	Continuing
0439: *Standard Missile Improvement*	1,050.958	16.918	24.579	26.716	-	26.716	17.774	21.844	16.165	16.448	Continuing	Continuing
3092: *Standard Missile 6 Program*	971.954	38.628	39.312	48.876	-	48.876	62.268	9.315	3.837	3.907	Continuing	Continuing
MDAP/MAIS Code(s): 197,391												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Standard Missile (SM) is the Navy's premier Anti-Air Warfare (AAW) missile, providing both area air defense for the fleet and self defense for individual AEGIS CGs and DDGs, as required by the Joint Theater Air Missile Defense (TAMD), Mission Need Statement (MNS), Defense Planning Guidance (DPG), Quadrennial Defense Review (QDR), and Ship Class AAW Self Defense Capstone Requirements Document. Agility, fuzing, and computer modifications to SM are in development to restore performance in the near term against a specific existing proliferating Anti-Ship Cruise Missile (ASCM) threat. Continuous analysis of missile capabilities vs. ever-evolving and proliferating aircraft and ASCM threats and long-range
planning are required to keep pace with the threat.

In FY04, the Standard Missile 6 (SM-6) program was started to develop an advanced surface missile system with an active seeker and an extended range. The SM-6 missile system will leverage the Navy investment in the AEGIS Weapon System (AWS), Cooperative Engagement Capability (CEC), and airborne early warning systems, which will be upgraded in concert with missile development to support a fully integrated extended range detect-to-engage naval and joint integrated fire control capability. SM-6 is the enabler for Integrated Fire Control (IFC). Funding to support those upgrades are also included in this line. SM-6 has completed the ground based and at-sea DT flight test phase of the System Development & Demonstration (SDD) effort. SDD at-sea OT phase completed July 2011. Together, this family of systems will provide the air superiority and the umbrella of protection against the full spectrum of projected future cruise missile (anti-ship and land attack) and manned aircraft threats discussed in the Joint TAMD MNS, DPG, QDR, IAMD Roadmap, IAMD Joint Integrating Concept, AIAMD Joint Operating Concept and TAMD Capstone Requirements Document.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	46.705	63.891	57.660	-	57.660
Current President's Budget	55.546	63.891	75.592	-	75.592
Total Adjustments	8.841	0.000	17.932	-	17.932
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	10.000	0.000			
• SBIR/STTR Transfer	-1.159	0.000			
• Program Adjustments	0.000	0.000	-2.082	-	-2.082
• Rate/Misc Adjustments	0.000	0.000	20.014	-	20.014

Change Summary Explanation

Technical: Program funding increased in FY14 and FY15 to execute and support demonstration(s). Program funding increased in FY 12 to complete supplemental testing to verify correction of deficiencies for the F & J antenna seen during FY 11 operational testing. This funding is also to complete the Ballistic Barrier program.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 0439: *Standard Missile Improvement*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0439: *Standard Missile Improvement*	1,050.958	16.918	24.579	26.716	-	26.716	17.774	21.844	16.165	16.448	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Modifications to SM-2 BLK IIIA are required for use on DDG-1000 class destroyers. The Joint Universal Waveform Link (JUWL) will be integrated with the Evolved Seasparrow Missile (ESSM) and Standard Missile to communicate with the DDG-1000 SPY-3 radar. SM-2 missile software will be updated with interrupted continuous wave illumination (ICWI) in order to allow operation with DDG-1000.

Missile integration with AMDR-S radar for DDG 51 Flight III ships will include requirements review/updates and analysis, verification; technical documentation, design review and working group SME support, missile/radar integration, missile test hardware procurement, risk assessment, safety, test and evaluation planning, analysis, data collection. Deliverables include interface specs and engineering documents to support AMDR PDRs HW&SW (FY13) and CDRs HW&SW (FY14); EDM testing (FY15), interface specs and engineering documents to support AMDR/ACBNext for DDG 51 Flight III E3 Testing, Analysis and Reports. Missile variants: ESSM Block I; SM-2 Blk IIIB MU2, SM-6 Block I (Current Aegis Configuration)

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: DDG-1000 Pre Plan Product Improvement (P3I)Link Integration/ICWI	16.918	19.945	12.706
Articles:	0	0	0
FY 2012 Accomplishments: Completed ESSM Critical Design Review in April 2012; Procured and assembled ESSM Production Representative Model (PRM) modules and conducted associated qualification testing; Procured SM-2 Plate 3 Proof of Design (POD) hardware and integrated modules into a functional transceiver; Conducted SM-2 Plate 3 X-band transmitter (only) design verification testing (DVT); Began SM-2 software integration with hardware.			
FY 2013 Plans: Conduct ESSM PRM qualification testing and EMI/E3 testing; Conduct SM-2 POD Plate 3 DVT; Complete SM-2 JUWL Preliminary Design Review in May 2013; Procure and assemble SM-2 Production Representative Model (PRM) modules and conduct associated qualification testing.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 0439: *Standard Missile Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Deliver ESSM inert operational missile (IOM) to DDG 1000 and begin ship interface checkout and integration testing; Conduct SM-2 Plate 3 qualification testing; Hold SM-2 JUWL Critical Design Review in May 2014; Assemble/integrate SM-2 modules and software into a functional missile guidance section.			
Title: DDG 1000 Rephase ***Articles:*** ***FY 2013 Plans:*** Procure test round modification kits to upgrade Block IIIAs to Zumwalt IIIAs, test, and deliver Zumwalt IIIA rounds (including canisters) for developmental testing (DT).	0.000	2.799 0	0.000
Title: Air and Missile Defense Radar (AMDR)Integration ***Articles:*** ***FY 2013 Plans:*** AMDR Spec requirements review; conduct analysis required for requirements margin within current missile ICDs; Support AMDR Prime design review Technical Interchange Meetings; Engineering studies as required. ***FY 2014 Plans:*** Hardware (IOM/Spare parts) procurement - 1 IOM per missile variant; Design review participation with Radar Prime Contractor, facilitate design that complies with existing interfaces (including NIFC-CA); Analysis to include examination of new radar in natural and threat RF environments; performance analysis; Model updates.	0.000	1.835 0	14.010 0
Accomplishments/Planned Programs Subtotals	16.918	24.579	26.716

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Production representative missiles will be built for ESSM between FY12 and 14 and for SM-2 FY14 and FY17.

Engineering and Integration Testing for ESSM in FY14- FY15 and SM-2 in FY15. 67 ESSM missiles and 34 SM missiles are required to support Developmental Test & Operational Test (DT & OT) FY16-FY17 and continue follow-on ship integration and design update effort in FY18.

This budget reflects the procurement of the initial SM Flight Test Rounds (FTRs) in FY 13. Follow-on SM/ESSM FTRs, missile integration and test efforts and ship fill records are not funded within this budget. The 67 ESSM missiles are to be funded by PMS 500.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 0439: *Standard Missile Improvement*

SM Development, integration, and test is expected to conclude by FY17 for the X-band JUWL and ICWI.

E. Performance Metrics

ESSM initial engineering design for X-Band JUWL capability was completed and Engineering Development Models (EDMs) were built and tested.

ESSM ordered material/parts and assembled Proof of Design units. Design Verification Tests are complete (FY 12).

ESSM conducted its Critical Design Review in April 2012 (FY 12).

SM-2 PDR for JUWL is planned for third quarter FY13.

SM-2 integration testing and datalink qualification for JUWL testing is planned for FY14.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 0439: *Standard Missile Improvement*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Design and Analysis1	SS/CPAF	RAYTHEON:Tucson, AZ	220.476	14.510	Feb 2012	21.644	Nov 2012	24.231	Nov 2013	-		24.231	Continuing	Continuing	Continuing
Design and Analysis2	C/CPFF	JHU/APL:Laurel, MD	3.750	0.951	Mar 2012	1.500	Nov 2012	1.500	Nov 2013	-		1.500	0.000	7.701	
Design and Analysis3	MIPR	MIT/Lin Lab:Lexington, MA	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	
Design and Analysis4	WR	NSWC:Dahlgren	787.314	0.670	Apr 2012	0.340	Nov 2012	0.320	Nov 2013	-		0.320	0.000	788.644	
Design and Analysis5	WR	NSWC:Indian Head	0.940	0.000		0.000		0.000		-		0.000	0.000	0.940	
Design and Analysis6	WR	NAWC:China Lake	3.030	0.150	Jan 2012	0.480	Nov 2012	0.570	Nov 2013	-		0.570	0.000	4.230	
Design and Analysis7	Various	LOCKHEED MARTIN:Moorestown, NJ	17.775	0.000		0.000		0.000		-		0.000	0.000	17.775	
Design and Analysis8	WR	CNO:Washington, DC	0.010	0.000		0.000		0.000		-		0.000	0.000	0.010	
Design and Analysis9	WR	CMDP:Phoenix, AZ	4.795	0.000		0.000		0.000		-		0.000	0.000	4.795	
Design and Analysis11	WR	NSWC:Crane	0.257	0.000		0.000		0.000		-		0.000	0.000	0.257	
Design and Analysis12	WR	DOI&CNAP:Washington, DC	0.487	0.000		0.000		0.000		-		0.000	0.000	0.487	
Design and Analysis13	WR	COMPTEVFOR:Norfolk, VA	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	
Design and Analysis14	C/CPFF	LOCKHEED MARTIN:Moorestown, NJ	2.000	0.000		0.000		0.000		-		0.000	0.000	2.000	
Design and Analysis15	WR	CARDEROCK:Bethesda, MD	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	
Design and Analysis16	WR	NWAS:Corona	0.325	0.000		0.000		0.000		-		0.000	0.000	0.325	
Design and Analysis17	C/CPFF	CORVID:Mooresville, NC	0.100	0.000		0.000		0.000		-		0.000	0.000	0.100	
Design and Analysis18	C/CPFF	BAE:Rockville, MD	0.101	0.000		0.040	Nov 2012	0.030	Nov 2013	-		0.030	0.000	0.171	
Design and Analysis19	MIPR	MDA:Dahlgren,VA	1.257	0.000		0.000		0.000		-		0.000	0.000	1.257	
Design and Analysis20	WR	IWS3D:ARLINGTON, VA	1.000	0.000		0.500	Nov 2012	0.000		-		0.000	0.000	1.500	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 0439: *Standard Missile Improvement*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	1,043.817	16.281		24.504		26.651		0.000		26.651			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DEVELOPMENTAL TEST & EVALUATION1	WR	NSWC:Port Hueneme	0.185	0.000		0.000		0.000		-		0.000	0.000	0.185	
DEVELOPMENTAL TEST & EVALUATION2	WR	WSMR:New Mexico	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	
DEVELOPMENTAL TEST & EVALUATION3	WR	NAWC:Pt Mugu	0.098	0.000		0.000		0.000		-		0.000	0.000	0.098	
DEVELOPMENTAL TEST & EVALUATION4	WR	PMRF:Hawaii	0.338	0.000		0.000		0.000		-		0.000	0.000	0.338	
DEVELOPMENTAL TEST & EVALUATION5	WR	NSWC:PHD/Techrep	0.567	0.000		0.000		0.000		-		0.000	0.000	0.567	
		Subtotal	2.788	0.000		0.000		0.000		0.000		0.000	0.000	2.788	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CONTRACTOR ENGINEERING SUPPORT	C/CPAF	VARIOUS:VARIOUS	1.993	0.637	Jun 2012	0.000		0.000		-		0.000	0.000	2.630	
PROGRAM MANAGEMENT SUPPORT	C/CPAF	VARIOUS:VARIOUS	2.294	0.000		0.000		0.000		-		0.000	0.000	2.294	
TRAVEL	Allot	IWS3:Arlington, VA	0.066	0.000		0.075	Nov 2012	0.065	Nov 2013	-		0.065	0.000	0.206	
		Subtotal	4.353	0.637		0.075		0.065		0.000		0.065	0.000	5.130	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 0439: *Standard Missile Improvement*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,050.958	16.918		24.579		26.716		0.000		26.716			

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 3092: *Standard Missile 6 Program*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3092: *Standard Missile 6 Program*	971.954	38.628	39.312	48.876	-	48.876	62.268	9.315	3.837	3.907	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program leverages existing missile technology and advanced missile technology. It aligns missile technology roadmaps across the Services (NAVSEA, NAVAIR, USAF, USMC and USA) and missile variants within the Services, taking advantage of the Navy's investment in the AWS, CEC, and airborne early warning systems. This missile will provide an extended range engagement capability to provide the air superiority and the umbrella of protection for joint U.S. forces and allies against the full spectrum of manned-fixed and rotary-wing aircraft, unmanned aerial vehicles, and land attack and anti-ship cruise missiles in flight, thereby contributing to the continuous protection of forward deployed ground maneuver forces as well as theater rear assets as discussed in the Joint TAMD MNS, DPG, QDR, TAMD Capstone Requirements Document, Forward From the Sea, Joint Vision 2010/2020, the 2002/2003 Naval Transformational Roadmap and the Operational Requirements Document for SM-6 BLK 1.

This project addresses the Navy's requirement for an extended range area air defense missile with engage-on-remote and over-the-horizon capability as the enabler for USN and Joint integrated fire control. The SM-6 BLK 1 is the Navy's transformational enabler for the Sea Shield Operational Concept and enables the opportunity for Sea Basing and Sea Strike. This effort includes risk reduction, SDD design, insensitive munitions improvement, transition to production and operational test of the latest STANDARD Missile with the kinematic performance to defeat current and projected threats that possess low altitude, high altitude, and high velocity and maneuver characteristics at the max kinematic range of the missile. SM-6 completed OT flight test phase of the SDD effort.

The Joint Integrated Fire Enhancement funding is JROC directed for the demonstration of the Joint Land Attack Elevated Netted Sensor (JLENS) into the Naval Integrated Fire Control-Counter Air (NIFC-CA) kill chain; specifically, SM-6 integration with the JLENS and the AWS. The funding identified in this budget is part of an integrated funding package that also includes funding for PEO IWS 1.0, PEO IWS 6.0, PEO IWS 7.0 NAVAIR (PMA-231) and the Army's Cruise Missile Defense Systems JLENS Product Office. Additional funding is to support the integration, test, and analysis of the NIFC-CA test and evaluation strategy. Funds are also included for the transition of technology associated with the Missile Defense/Sea Shield Naval Interceptor Improvements (NII) Future Naval Capability (FNC) as formally signed in the NII Technology Transition Agreement (TTA) by PEO IWS 3.0, OPNAV N96, and the Office of Naval Research (PMR-51).

FTR 54 Reliability Assessment Round will be fired at WSMR in the 3rd quarter of 2013. Subsequent reliability assessment events are planned for 2014 and 2015 based on range availability. This analysis will also determine if there are any required modifications to the Aegis Combat system baseline 9 for future capability support.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 3092: *Standard Missile 6 Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Joint Integrated Fire Enhancement	2.862	0.000	0.000
Articles:	0		
Description: Joint Integrated Fire Enhancement			
FY 2012 Accomplishments: Supported Pair-wise testing between SM-6 and JLENS; conducted Captive Flight Test (CFT) with JLENS in Integrated Fire Control (IFC) Kill Chain; supported SM-6: 6 degrees of freedom (DoF) accreditation; conducted pre-flight analysis for JLENS IFC Live Fire Event and post-flight analysis for JLENS IFC Live Fire Event.			
Title: SM 6 Missile Development/Improvement	16.396	9.620	0.000
Articles:	0	0	
FY 2012 Accomplishments: Continued (ACB 12) and (CSEDS) integration and test; Continued Captive Carry Flight Test; Integrated Fire Control (IFC) integration and test; Completed analysis of OT-IIB.			
FY 2013 Plans: Support follow on test and evaluation (FOT&E); ACB 12 B/L 9 integration and flight test; and Processor Replacement Program (PRP) flight test and analysis.			
Title: SM6/AWS & VLS Integration	1.624	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: AEGIS Weapons System and MK 41 Vertical Launch Integration of SM-6 IFC mode to ACB12.			
Title: Insensitive Munitions (IM)	0.000	15.300	4.114
Articles:		0	0
FY 2013 Plans: Electronic Arm & Fire Device (EAFD) & Active Mitigation (AM) technology transition & integration into DPRM; develop 30 rocket motors (RM) of dual pulse configuration; prime contractor & subs integration & procurement support; develop & maintain systems safety program plan per WSESRB recommendation; and develop RM qualification test plan(s) and procedures.			
FY 2014 Plans: Safety Plans; POA&M Development; IM STRAT Plan Development; Threat Hazard Assessment Update.			
Title: SM6 OT&E Support	7.746	0.000	0.000
Articles:	0		

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 3092: *Standard Missile 6 Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Completed activities related to SM-6 IOT&E (OT-IIB) testing and analysis. These activities include completing an interim OT report. They also include quartz lamp testing and wind tunnel testing.			
Title: Portable All-Up Round Bit Tester (PABTs) ***Articles:*** ***FY 2013 Plans:*** Integrated Baseline Review (IBR); System Requirements review (SRR)/System Functional Review (SFR) and detailed design. ***FY 2014 Plans:*** Continue detailed design and development; Preliminary Design Review/Critical Design Review (PDR/CDR) and interface development.	0.000 0	7.000 0	5.000 0
Title: Naval Integrated Fire Control - Counter Air (NIFC-CA) ***Articles:*** ***FY 2013 Plans:*** Integration of SM-6 6-DOF (Degrees of freedom) with NIFC-CA federation, to include airborne sensor and execution of end-to-end simulation performance predictions; Execution of one land-based (WSMR) NIFC-CA live fire test and one at-sea Point Mugu Test Center (PMTC) live fire test; Completion of NIFC-CA CONOPS. ***FY 2014 Plans:*** Execution of Live-Fire NIFC-CA tests at WSMR; Execution of three at-sea live fire NIFC-CA tests at PMTC; Capabilities and limitations and analysis based on federated 6-DOF and live fire test events.	0.000 0	7.392 0	5.762 0
Title: Future Capability Demonstration ***Articles:*** ***FY 2014 Plans:*** Execute demonstration events to include supporting data collections and performance analysis tasks.	0.000	0.000	34.000 0
Title: FY 12 OMNIBUS (SM-6 Supplemental Testing) ***Articles:*** ***FY 2012 Accomplishments:*** FY 12 Accomplishments - Wind Tunnel testing - Planning for flight test	10.000 0	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 3092: *Standard Missile 6 Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- FTR Events Test Planned - Completed wind tunnel test reporting - Executed FTR 27 and 27A - Completing analysis and reporting of supplemental flight test events - Complete Ballistic Barrier Program			
Accomplishments/Planned Programs Subtotals	38.628	39.312	48.876

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• WPN 2234: *Standard Missile*	356.878	399.482	367.985		367.985	546.972	564.003	708.436	810.665	4,288.021	8,488.409
• Standard Missile: *QTY*	89.000	94.000	81.000		81.000	125.000	127.000	160.000	174.000	861.000	1,800.000

Remarks

D. Acquisition Strategy

SM-6 Acquisition Strategy signed by OSD AT&L 14 March 2012.

E. Performance Metrics

Accomplishments
- DT Flight Tests at PMRF - Jan 11
- OT TRR - May 11
- OT Flight Tests at PMRF - Jul 11
- LRIP III Option II Contract Award - Jul 11
- LRIP IV UCA Contract Award - May 12
- SM-6 SD&D Contract SPI is currently at 1.00 and CPI is at 1.00

Upcoming Milestones
- OT IIIA - Apr 12 - Dec 13
- Integrated Fire Control (IFC) Apr 12 - Sep 14
- PRP Flight Test May 13

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 3092: *Standard Missile 6 Program*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Design & Analysis	C/CPIF	RAYTHEON:Tucson, AZ	648.230	17.460	Feb 2012	25.509	Nov 2012	11.818	Nov 2013	-		11.818	Continuing	Continuing	Continuing
Design & Analysis	C/CPFF	JHU/APL:Laurel MD	42.108	3.310	May 2012	2.411	Nov 2012	3.049	Nov 2013	-		3.049	0.000	50.878	
Design & Analysis	MIPR	MIT/Lin Lab:Lexington, MA	0.550	0.000		0.000		0.000		-		0.000	0.000	0.550	
Design & Analysis	WR	NAWC:China Lake	3.285	1.149	Mar 2012	0.543	Nov 2012	0.050	Nov 2013	-		0.050	0.000	5.027	
Design & Analysis	WR	NSWC:Dahlgren	9.845	1.059	Apr 2012	0.400	Nov 2012	0.175	Nov 2013	-		0.175	0.000	11.479	
Design & Analysis	WR	NSWC:Indian Head	3.291	0.021	Nov 2012	0.300	Nov 2012	0.300	Nov 2013	-		0.300	0.000	3.912	
Design & Analysis	WR	NSWC:PHD	9.012	0.000		0.050	Nov 2012	0.050	Nov 2013	-		0.050	0.000	9.112	
Design & Analysis	WR	NSWC:Crane	1.191	0.065	Mar 2012	0.000		0.000		-		0.000	0.000	1.256	
Design & Analysis	MIPR	JSPO:Eglin AFB	23.722	0.327	May 2012	0.000		0.000		-		0.000	0.000	24.049	
Design & Analysis	C/CPFF	LOCKHEED Martin:Moorestown, NJ	5.794	0.280	Nov 2012	0.000		7.000	Nov 2013	-		7.000	0.000	13.074	
Design & Analysis	WR	NSWC:Corona	16.559	0.000		0.200	Nov 2012	0.100	Nov 2013	-		0.100	0.000	16.859	
Design & Analysis	Reqn	ONR:Arlington, VA	5.150	0.170	Nov 2012	0.000		0.000		-		0.000	0.000	5.320	
Design & Analysis	Reqn	NRL:Washington, DC	0.090	0.000		0.000		0.000		-		0.000	0.000	0.090	
Design & Analysis	WR	COMPTEVFOR:Norfolk, VA	2.155	0.000		0.000		0.000		-		0.000	0.000	2.155	
Design & Analysis	WR	CARDEROCK:Philadelphia, PA	2.549	0.000		0.000		0.000		-		0.000	0.000	2.549	
Design & Analysis	WR	NSWC:Pt Mugu	0.613	0.000		0.000		0.000		-		0.000	0.000	0.613	
Design & Analysis	C/CPFF	BAE:Rockville, MD	6.446	0.000		0.080	Nov 2012	0.000		-		0.000	0.000	6.526	
Design & Analysis	MIPR	ARMY:Redstone	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	
Design & Analysis	WR	NAWCAD:Pax River, MD	0.392	0.000		0.000		0.000		-		0.000	0.000	0.392	
Design & Analysis	C/CPFF	CORVID:Mooresville, NC	2.750	0.150	Mar 2012	0.500	Nov 2012	0.000		-		0.000	0.000	3.400	
Design & Analysis	C/CPFF	RNB:Arlington, VA	0.010	0.000		0.000		0.000		-		0.000	0.000	0.010	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 3092: *Standard Missile 6 Program*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Design & Analysis	WR	SPAWAR:Arlington, VA	0.007	0.000		0.000		0.000		-		0.000	0.000	0.007	
Design & Analysis	WR	ARMY:Cecom	0.066	0.000		0.000		0.000		-		0.000	0.000	0.066	
Design & Analysis	C/FP	GENERAL DYNAMICS:Falls Church, VA	1.660	0.000		0.000		0.000		-		0.000	0.000	1.660	
Design & Analysis	WR	VARIOUS:(IWS 1A)	59.773	0.000		0.000		11.000	Nov 2013	-		11.000	0.000	70.773	
Design & Analysis	WR	VARIOUS:(VLS)	24.772	0.000		0.040	Nov 2012	0.050	Nov 2013	-		0.050	0.000	24.862	
Design & Analysis	WR	NSWC:WSMR	0.000	0.000		0.100	Nov 2012	0.100	Nov 2013	-		0.100	0.000	0.200	
		Subtotal	870.070	23.991		30.133		33.692		0.000		33.692			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Develpomental Test & Evaluation	WR	NSWC:Port Hueneme	0.400	0.790	May 2012	0.200	Nov 2012	0.700	Nov 2013	-		0.700	0.000	2.090	
Develpomental Test & Evaluation	WR	NSWC:WSMR	19.321	4.180	May 2012	1.848	Nov 2012	1.900	Nov 2013	-		1.900	0.000	27.249	
Develpomental Test & Evaluation	WR	PMRF:Hawaii	38.089	0.112	Jun 2012	0.000		0.000		-		0.000	0.000	38.201	
Develpomental Test & Evaluation	WR	NAWC:Pt Mugu	0.769	0.000		0.000		2.000	Nov 2013	-		2.000	0.000	2.769	
Develpomental Test & Evaluation	C/CPAF	RAYTHEON:Tucson, AZ	14.242	1.024	Feb 2012	1.841	Nov 2012	1.854	Nov 2013	-		1.854	0.000	18.961	
Develpomental Test & Evaluation	C/CPFF	JHU/APL:Laurel, MD	1.250	2.498	Mar 2012	2.455	Nov 2012	2.630	Nov 2013	-		2.630	0.000	8.833	
Develpomental Test & Evaluation	WR	NSWC:Corona	1.750	2.148	Mar 2012	0.800	Nov 2012	1.620	Nov 2013	-		1.620	0.000	6.318	
Develpomental Test & Evaluation	WR	NSWC:Dahlgren	0.500	0.363	May 2012	0.100	Nov 2012	0.550	Nov 2013	-		0.550	0.000	1.513	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604366N: *Standard Missile Improvements*	PROJECT 3092: *Standard Missile 6 Program*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	VLS:Arlington, VA	0.750	0.805	Jun 2012	0.385	Nov 2012	0.150	Nov 2013	-		0.150	0.000	2.090	
Developmental Test & Evaluation	WR	COMPTEVFOR:Norfolk, Va	0.250	0.672	May 2012	0.000		0.000		-		0.000	0.000	0.922	
Developmental Test & Evaluation	WR	VARIOUS:(IWS 1A)	0.000	0.902	May 2012	0.000		0.000		-		0.000	0.000	0.902	
Developmental Test & Evaluation	WR	NSWC:Carderock	0.000	0.000		0.000		2.000	Nov 2013	-		2.000	0.000	2.000	
		Subtotal	77.321	13.494		7.629		13.404		0.000		13.404	0.000	111.848	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Services	C/CPAF	VARIOUS:Various	22.405	1.083	Feb 2012	1.500	Nov 2012	1.730	Nov 2013	-		1.730	0.000	26.718	
Travel	Various	IWS3:Arlington, VA	1.028	0.060	Dec 2011	0.050	Nov 2012	0.050	Nov 2013	-		0.050	0.000	1.188	
DAWDF	C/FP	Not Specified:Not Specified	1.130	0.000		0.000		0.000		-		0.000	0.000	1.130	
		Subtotal	24.563	1.143		1.550		1.780		0.000		1.780	0.000	29.036	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	971.954	38.628		39.312		48.876		0.000		48.876			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604366N: *Standard Missile Improvements*	**PROJECT** 3092: *Standard Missile 6 Program*

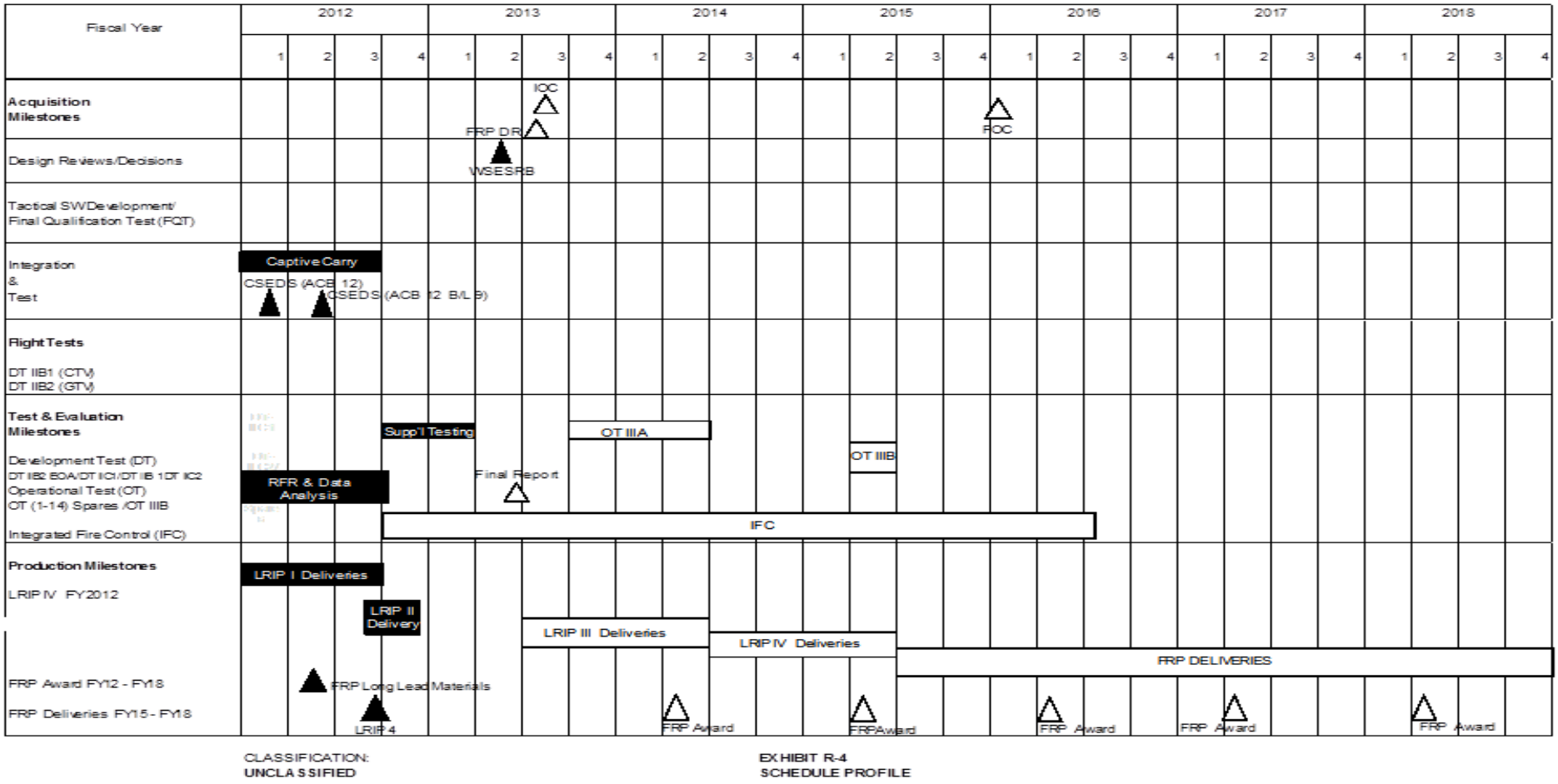


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604366N: *Standard Missile Improvements*	**PROJECT** 3092: *Standard Missile 6 Program*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3092				
IOC	2	2013	3	2013
Full-Rate Production (FRP) Decision	3	2013	3	2013
Full Operational Capability (FOC)	4	2015	1	2016
WSESRB	1	2013	2	2013
Captive Carry	1	2012	3	2012
CSEDS (ACB 12) (ACB 12 B/L 9)	1	2012	2	2012
Supplemental Testing	3	2012	1	2013
OT IIIA	4	2013	2	2014
OT IIIB	2	2015	2	2015
Runs for the Record (RFR) & Data Analysis	1	2012	4	2012
Runs for Record Final Report	1	2013	1	2013
Integrated Fire Control (IFC)	3	2012	3	2016
Low-Rate Initial Production I Deliveries	1	2012	3	2012
Low-Rate Initial Production II Deliveries	3	2012	4	2012
Low-Rate Initial Production III Deliveries	3	2013	2	2014
Low-Rate Initial Production IV Deliveries	3	2014	2	2015
Full Rate Production (FRP) Deliveries	3	2015	4	2018
Full Rate Production (FRP) I Long Lead Material	2	2012	2	2012
LRIP IV Award	3	2012	3	2012
Full Rate Production (FRP) Award	2	2014	2	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	632.039	48.614	73.246	117.854	-	117.854	87.102	50.499	41.196	31.159	Continuing	Continuing
0529: *ABN Mine Hunt System*	239.988	15.440	4.513	50.177	-	50.177	26.678	10.520	10.710	4.881	Continuing	Continuing
2047: *ALMDS*	133.551	9.705	14.371	29.341	-	29.341	25.972	17.466	17.779	13.366	Continuing	Continuing
2427: *OASIS*	111.619	3.936	13.028	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	128.583
2473: *Airborne Mine Neutralization System*	128.615	16.922	36.864	32.201	-	32.201	25.603	14.192	2.344	2.382	Continuing	Continuing
4026: *Strat Into Medal, Tactics & Trng Organic Force*	15.736	1.730	3.573	5.230	-	5.230	7.923	7.386	9.411	9.562	Continuing	Continuing
9179: *Surf Navy Integ Undersea Tactical Tech*	2.530	0.881	0.897	0.905	-	0.905	0.926	0.935	0.952	0.968	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program element provides resources to develop advanced mine countermeasures equipment systems to counter known and projected mine threats. The mine countermeasures systems provide mobile, quick reaction forces capable of land or sea-based minehunting and minesweeping operations worldwide. Resources are for developing and deploying advanced mine-hunting and minesweeping systems and the intelligence and oceanographic capabilities that will enable mine warfare superiority. Tactics and techniques used vary across a diversity of environments and a diversity of threats, including both asymmetric and emerging. Resources provide for systems and support of mine warfare systems, maritime systems, and expeditionary systems to allow for continuous operations of the Navy's warships and support vessels, other military vessels, and commercial vessels. Core capabilities include forward presence, deterrence, sea control, power projection, maritime security, humanitarian assistance and disaster response to maintain freedom of the seas. Increased capability includes conducting minefield reconnaissance (mine density and location) at high area search rates, improving detection capability, decreasing sensor false alarm rates, reducing or eliminating post-mission analysis detect, classify, identify, decide time, improving neutralization time, improving network communications, automatic target recognition, and achieving in-stride detect-to-engage capability. Concept of operations includes development of cooperative, unmanned, modular systems; the establishment of a capable networked command and control systems; and standing up an accurate and interactive environmental system with the ability to form and disseminate a Common Environmental Picture. Other areas of importance include search and rescue; surface fire support; ASW operations; protection/offense against small craft/vehicles; air to air operations; very shallow water MCM; swimmer defense and torpedo defense. Efforts benefit the MCM force by transforming the Navy from the platform-centered legacy set of systems to a capability-centered force that is distributed, networked, and able to provide unique maritime influence and access across the entire maritime domain.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604373N: *Airborne Mine Countermeasures (AMCM)*

The Airborne Mine Countermeasures (AMCM) programs are platform independent and will provide detection, classification, localization, identification, neutralization, and influence clearance capabilities. The "Next Generation" AMCM systems will provide capabilities to the Littoral Combat Ship (LCS) Mine Countermeasure Mission (MCM) Package. This capability will be of critical importance in littoral zones, confined straits, choke points, near surface and the Amphibious Objective Area (AOA).

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	41.142	73.246	60.584	-	60.584
Current President's Budget	48.614	73.246	117.854	-	117.854
Total Adjustments	7.472	0.000	57.270	-	57.270
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	8.100	0.000			
• SBIR/STTR Transfer	-0.628	0.000			
• Program Adjustments	0.000	0.000	20.947	-	20.947
• Rate/Misc Adjustments	0.000	0.000	36.323	-	36.323

Change Summary Explanation

Program Adjustments: FY14 +$20,947 in Total Adjustments: AN/AQS-20A P3I +$17,000, AN/AQS-24 +$8,174K, OASIS -$4,227K, and -$36,323K Misc adjustments: FY14 AN/AQS-24 +$15,066K, ALMDS +$7,666K, AMNS N/S +$13,591K.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0529: *ABN Mine Hunt System*	239.988	15.440	4.513	50.177	-	50.177	26.678	10.520	10.710	4.881	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project contains resources for systems, subsystems, and sensors for mine detection, classification, localization, identification, neutralization, and influence clearance capabilities. Research, development, test, and evaluation efforts are for increasing critical capacity, decreasing time required to conduct MCM operations, ensuring low risk to naval and commercial vessels, and removing the man from the minefield. Increased capability includes conducting minefield reconnaissance (mine density and location) at high area search rates, improving detection capability, decreasing sensor false alarm rates, reducing or eliminating post-mission analysis detect, classify, identify, decide time, improving neutralization time, improving network communications, automatic target recognition, anch achieving in-stride detect-to-engage capability.

The AN/AQS-20A is being developed to address the emergent requirements for mine identification and to integrate with the Littorial Combat Ship (LCS) Mine Countermeasures (MCM) Misison Module. The AN/AQS-20A will be the mine hunting sonar component for the Remote Minehunting System (RMS).

The AN/AQS-20A Pre-Planned Product Improvement (P3I) program upgrades the Forward Looking and Side-Looking sonars to improve Probability of Classifying a Mine-like object as a Mine, False Classification Rates, and Depth Localization performance. The Forward Looking Sonar will be replaced with a new High Frequency Wideband based design. The Side Looking Sonar will be replaced to improve signal processing and Signal to Noise Ratio. The P3I program began in FY12 and will complete in FY15.

The AN/AQS-24 Volume Search upgrade will be developed, tested, and integrated for use with multiple platforms including the MH-53E Helicopter.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: AN/AQS-20 Product Development:	13.987	3.250	21.200
Articles:	0	0	0
FY 2012 Accomplishments: - Evaluated Forward Look Sonar (FLS) to improve detection and localization of volume and close-tethered mines. - Conducted P3I Design Review I and II. Purchased P3I Long Lead Items. - Initiated fabrication of improved FLS.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Complete fabrication and subsystem testing of three FLS sensors. - Initiate fabrication of three sets of improved Side Looking Sonor (SLS) sensors. ***FY 2014 Plans:*** - Complete fabrication and subsystem testing of improved SLS sensors. - Integrate improved sensors into Engineering Development Models (EDMs). - Deliver three P3I EDMs for Developmental Testing. - Initiate RMS Integration			
Title: AN/AQS-20 Support: ***Articles:*** ***Description:*** RDT&E Articles Quantity ***FY 2012 Accomplishments:*** - Provided ongoing technical engineering support to AN/AQS-20A. ***FY 2013 Plans:*** - Provide ongoing technical engineering support to AN/AQS-20A and P3I development efforts. ***FY 2014 Plans:*** - Provide ongoing technical engineering support to AN/AQS-20A and P3I development efforts.	0.737 0	0.494 0	0.616 0
Title: AN/AQS-20 Test and Evaluation ***Articles:*** ***Description:*** RDT&E Articles Quantity ***FY 2012 Accomplishments:*** - Provided AN/AQS-20A support of Littoral Combat Ship (LCS) 2 Mine Countermeasures Mission Package Developmental Testing. ***FY 2013 Plans:*** - Support Littoral Combat Ship (LCS) MCM Developmental Testing (DT) events. - Update AN/AQS-20A Test and Evaluation Master Plan. - Support RMS Reliability Growth Program (RGP) Testing and DT. ***FY 2014 Plans:*** - Participate in LCS MCM Mission Module Technical Evaluation and Initial Operational Test and Evaluation (IOT&E).	0.552 0	0.636 0	4.724 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Support RMS Version 6.0 Testing.			
Title: AN/AQS-20 Management Services ***Articles:*** ***Description:*** RDT&E Articles Quantity ***FY 2012 Accomplishments:*** - Completed Request for Proposal for follow-on Low Rate Initial Production (LRIP) and Full Rate Production (FRP) contract. - Continued to provide planning and management for the AN/AQS-20A program. ***FY 2013 Plans:*** - Continue to provide planning and management for the AN/AQS-20A program. ***FY 2014 Plans:*** - Continue to provide planning and management for the AN/AQS-20A program.	0.164 0	0.133 0	0.237 0
Title: AN AQS-24 Product Development ***Articles:*** ***FY 2014 Plans:*** Develop and integrate a volume search capability for the AN/AQS-24.	0.000	0.000	13.509 0
Title: AN AQS-24 Test and Evaluation ***Articles:*** ***FY 2014 Plans:*** Test the AN/AQS-24 volume search capability on the MH-53E Helicopter.	0.000	0.000	7.090 0
Title: AN AQS-24 Program Management ***Articles:*** ***FY 2014 Plans:*** Provide management support for the development of the Q-24 Volume Search Capability	0.000	0.000	0.250 0
Title: AN AQS-24 Support ***Articles:*** ***FY 2014 Plans:*** Provide Engineering and Logistical support for the development of the AN/AQS-24 Volume Search Capability	0.000	0.000	2.551 0
Accomplishments/Planned Programs Subtotals	15.440	4.513	50.177

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN 4248: *Airborne Mine Countermeasure (AN/AQS-20A)*	2.017	0.000	52.000		52.000	15.500	10.000	0.000	0.000	Continuing	Continuing
• OPN 1601: *LCS MCM Mission Modules (AN/AQS-20A)*	0.000	15.800	24.294		24.294	58.100	50.647	51.507	52.434	Continuing	Continuing

Remarks

D. Acquisition Strategy

AN/AQS-20A achieved Milestone C on 10 May 2005. Delay in IOTE caused revision to Acquisition Strategy prior to Full Rate Production. LRIP procurement began in FY05, FY06, FY07, and is planned for FY13. FRPDR will occur in first quarter FY16.

E. Performance Metrics

Successfully complete IOT&E.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/AQS-20A Hardware/ Software Development Q-20 on the H-53	SS/CPIF	Raytheon:Portsmouth, RI	31.120	0.000		0.000		0.000		-		0.000	0.000	31.120	
AN/AQS-20A Hardware/ Software Development Q-20A on the H-60	C/CPFF	Raytheon:Portsmouth, RI	60.150	0.000		0.000		0.000		-		0.000	0.000	60.150	
AN/AQS-20A Hardware/ Software Development	WR	NSWC, PC:Panama City FL	14.578	0.000		0.000		0.000		-		0.000	0.000	14.578	
AN/AQS-20A Hardware/ Software Development	C/FP	Northrop Grumman:Melbourne, FL	4.572	0.000		0.000		0.000		-		0.000	0.000	4.572	
AN/AQS-20A P3I	C/CPFF	Raytheon:Portsmouth, RI	0.000	8.159	Oct 2011	2.000	Oct 2012	11.010	Oct 2013	-		11.010	Continuing	Continuing	Continuing
AN/AQS-20A P3I	C/CPFF	ARL/UT:Austin, TX	0.000	4.407	Oct 2011	1.000	Oct 2012	5.610	Oct 2013	-		5.610	Continuing	Continuing	Continuing
AN/AQS-20A P3I	WR	NSWC, PC:Panama City FL	0.000	1.421	Dec 2011	0.250	Oct 2012	4.580	Oct 2013	-		4.580	0.000	6.251	
AN/AQS-24 Hardware/ Software Development	C/CPIF	Northrop Grumman:Annapolis, MD	0.000	0.000		0.000		8.790	Nov 2013	-		8.790	0.000	8.790	
AN/AQS-24 Hardware/ Software Development	C/CPFF	ARL/UT:Austin, TX	0.000	0.000		0.000		4.191	Nov 2013	-		4.191	0.000	4.191	
AN/AQS-24 Hardware/ Software Development	WR	NSWC, PC:Panama City, FL	0.000	0.000		0.000		0.528	Nov 2013	-		0.528	0.000	0.528	
		Subtotal	110.420	13.987		3.250		34.709		0.000		34.709			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/AQS-20A Engineering Services	WR	NSWC, PC:Panama City, FL	31.018	0.208	Oct 2011	0.494	Oct 2012	0.616	Oct 2013	-		0.616	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/AQS-20A Engineering Services	C/CPFF	Raytheon:Portsmouth, RI	3.686	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
AN/AQS-20A Engineering Services	Various	Various:Various	54.018	0.000		0.000		0.000		-		0.000	0.000	54.018	
AN/AQS-20A Engineering Services 2	SS/CPIF	Raytheon:Portsmouth, RI	3.464	0.000		0.000		0.000		-		0.000	0.000	3.464	
AN/AQS-20A ILS Function	WR	NSWC, PC:Panama City FL	6.339	0.029	Oct 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
AN/AQS-20A ILS Function	SS/CPIF	Raytheon:Portsmouth, RI	1.546	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
AN/AQS-20A ILS Function	Various	Various:Various	0.981	0.000		0.000		0.000		-		0.000	0.000	0.981	
AN/AQS-20A Engineering Services	WR	NSWC/ CD:Carderock, MD	0.000	0.500	May 2012	0.000		0.000		-		0.000	0.000	0.500	
AN/AQS-24 Engineering Services/ILS Functions	C/CPIF	Northrop Grumman:Annapolis, MD	0.000	0.000		0.000		0.250	Nov 2013	-		0.250	0.000	0.250	
AN/AQS-24 Engineering Services/ILS Functions	C/CPFF	ARL/UT:Austin, TX	0.000	0.000		0.000		0.741	Nov 2013	-		0.741	0.000	0.741	
AN/AQS-24 Engineering Services/ILS Functions	WR	NSWC, PC:Panama City, FL	0.000	0.000		0.000		1.560	Nov 2013	-		1.560	0.000	1.560	
		Subtotal	101.052	0.737		0.494		3.167		0.000		3.167			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/AQS-20A T&E Functions	WR	COTF:Norfolk, VA	0.000	0.000		0.000		0.300	Oct 2013	-		0.300	0.000	0.300	
AN/AQS-20A T&E Functions	WR	NSWC, PC:Panama City FL	17.413	0.552	Oct 2011	0.636	Oct 2012	4.424	Oct 2013	-		4.424	Continuing	Continuing	Continuing
AN/AQS-20A T&E Functions	C/CPFF	Raytheon:Portsmouth, RI	4.134	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/AQS-20A T&E Functions	Various	Various:Various	1.583	0.000		0.000		0.000		-		0.000	0.000	1.583	
AN/AQS-24 T&E Functions	WR	NSWC, PC:Panama City, FL	0.000	0.000		0.000		2.700	Nov 2013	-		2.700	0.000	2.700	
AN/AQS-24 T&E Functions	WR	NAVAIR:Pax River, MD	0.000	0.000		0.000		0.290	Nov 2013	-		0.290	0.000	0.290	
AN/AQS-24 T&E Functions	WR	COTF:Norfolk, VA	0.000	0.000		0.000		2.600	Nov 2013	-		2.600	0.000	2.600	
AN/AQS-24 T&E Functions	C/CPIF	Northrop Grumman:Annapolis, MD	0.000	0.000		0.000		1.000	Nov 2013	-		1.000	0.000	1.000	
AN/AQS-24 T&E Functions	C/CPFF	ARL/UT:Austin, TX	0.000	0.000		0.000		0.500	Nov 2013	-		0.500	0.000	0.500	
		Subtotal	23.130	0.552		0.636		11.814		0.000		11.814			

Remarks

COFT - Naval Command Operational Test and Evaluation Force

Management Services ($ in Millions)

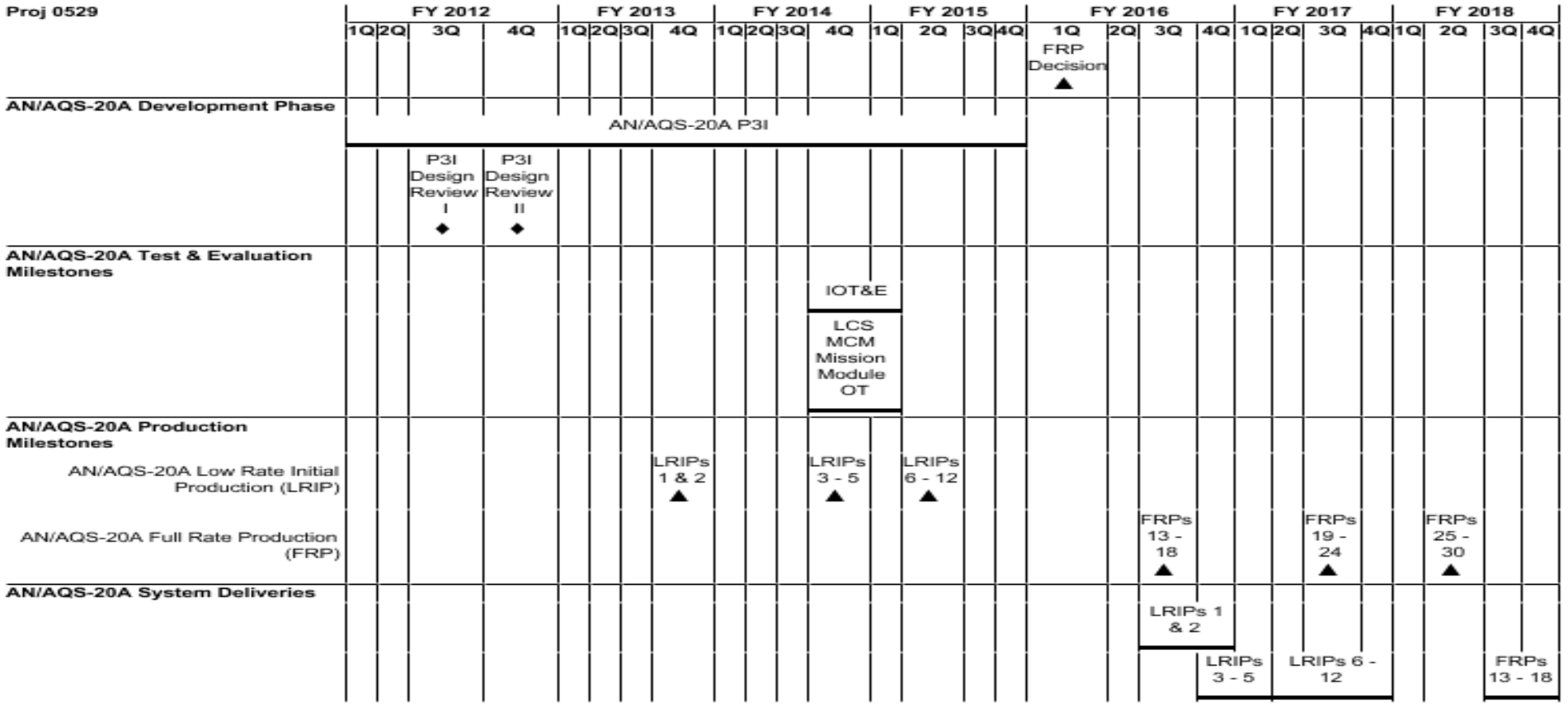
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/AQS-20A Management Services	TBD	Various:Various	4.795	0.156	Oct 2011	0.133	Oct 2012	0.237	Oct 2013	-		0.237	Continuing	Continuing	Continuing
AN/AQS-20A Travel	TBD	Various:Various	0.579	0.008	Oct 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
AN/AQS-20A Acquisition Workforce Fund	Various	Various:Various	0.012	0.000		0.000		0.000		-		0.000	0.000	0.012	
AN/AQS-24 Program Management	WR	NSWC, PC:Panama City, FL	0.000	0.000		0.000		0.250	Nov 2013	-		0.250	0.000	0.250	
		Subtotal	5.386	0.164		0.133		0.487		0.000		0.487			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	239.988	15.440		4.513		50.177		0.000		50.177			

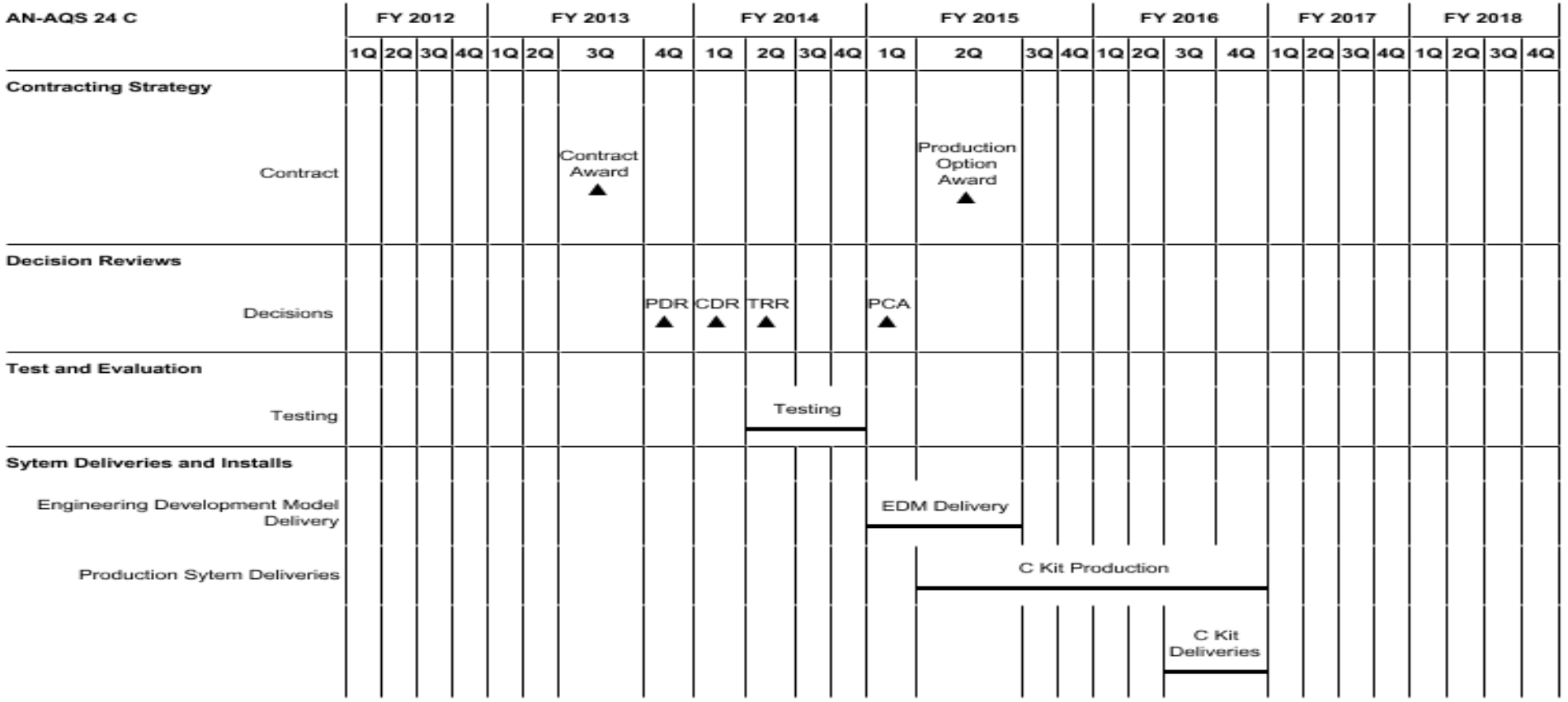
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*



2014PB - 0604373N - 0529

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*



2014PB - 0604373N - 0529

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0529				
AN/AQS-20A Full Rate Production (FRP) Decision	1	2016	1	2016
AN/AQS-20A Development Phase: AN/AQS-20A P3I	1	2012	4	2015
AN/AQS-20A Development Phase: AN/AQS-20A P3I Design Review I	3	2012	3	2012
AN/AQS-20A Development Phase: AN/AQS-20A P3I Design Review II	4	2012	4	2012
AN/AQS-20A Test & Evaluation Milestones: AN/AQS-20A IOT&E	4	2014	1	2015
AN/AQS-20A Test & Evaluation Milestones: AN/AQS-20A Littoral Combat Ship Based LCS MCM Mission Module OT	4	2014	1	2015
AN/AQS-20A Production Milestones: AN/AQS-20A Low Rate Initial Production (LRIP): AN/AQS-20A Low Rate Initial Production (LRIP) Basic Award (LRIPs 1 & 2)	4	2013	4	2013
AN/AQS-20A Production Milestones: AN/AQS-20A Low Rate Initial Production (LRIP): AN/AQS-20A Low Rate Initial Production (LRIP) Option 1 Award (LRIPs 3 - 5)	4	2014	4	2014
AN/AQS-20A Production Milestones: AN/AQS-20A Low Rate Initial Production (LRIP): AN/AQS-20A Low Rate Initial Production (LRIP) Option 2 Award (LRIPs 6 - 12)	2	2015	2	2015
AN/AQS-20A Production Milestones: AN/AQS-20A Full Rate Production (FRP): AN/AQS-20A Full Rate Production (FRP) Basic Award (FRPs 13 - 18)	3	2016	3	2016
AN/AQS-20A Production Milestones: AN/AQS-20A Full Rate Production (FRP): AN/AQS-20A Full Rate Production (FRP) Option 1 Award (FRPs 19 - 24)	3	2017	3	2017
AN/AQS-20A Production Milestones: AN/AQS-20A Full Rate Production (FRP): AN/AQS-20A Full Rate Production (FRP) Option 2 Award (FRPs 25 - 30)	2	2018	2	2018
AN/AQS-20A System Deliveries: AN/AQS-20A LRIP Base Award Systems (LRIPs 1 & 2)	3	2016	4	2016
AN/AQS-20A System Deliveries: AN/AQS-20A LRIP Option 1 Award Systems (LRIPs 3 - 5)	4	2016	1	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 0529: *ABN Mine Hunt System*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
AN/AQS-20A System Deliveries: AN/AQS-20A LRIP Option 2 Award Systems (LRIPs 6 - 12)	2	2017	4	2017
AN/AQS-20A System Deliveries: AN/AQS-20A FRP Basic Award Systems (FRPs 13 - 18)	3	2018	4	2018
AN-AQS 24 C				
Contracting Strategy: Contract: Contract Award	3	2013	3	2013
Contracting Strategy: Contract: Contract Option Award	2	2015	2	2015
Decision Reviews: Decisions: Preliminary Design Review	4	2013	4	2013
Decision Reviews: Decisions: Critical Design Review	1	2014	1	2014
Decision Reviews: Decisions: Test Readiness Review	2	2014	2	2014
Decision Reviews: Decisions: Physical Configuration Audit	1	2015	1	2015
Test and Evaluation: Testing: Testing	2	2014	4	2014
Sytem Deliveries and Installs: Engineering Development Model Delivery: Engineering Development Model Delivery	1	2015	2	2015
Sytem Deliveries and Installs: Production Sytem Deliveries: C Kit Production	2	2015	4	2016
Sytem Deliveries and Installs: Production Sytem Deliveries: C Kit Deliveries & Installs	3	2016	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2047: *ALMDS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2047: *ALMDS*	133.551	9.705	14.371	29.341	-	29.341	25.972	17.466	17.779	13.366	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Airborne Laser Mine Detection System (ALMDS), designation AN/AES-1, is a light detection and ranging (LIDAR) Airborne Mine Countermeasures (AMCM) high area coverage system that detects, classifies, and localizes floating and near-surface , moored sea mines. The system is deployed from the MH-60S helicopter and will provide Organic Airborne Mine Countermeasures (OAMCM) defense to the battle force. The system represents a capability that does not exist in the current Mine Countermeasures (MCM) inventory.

ALMDS first spiral development phase, very shallow water capability, begins in FY2016.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Hardware and Software technology development and demonstration/Engineering Services:	7.324	9.771	21.847
Articles:	0	0	0
Description: TDA Engineering/oversight/support of engineering efforts to meet baseline performance and full performance.			
FY 2012 Accomplishments: Maintained Task Trainer, shipping containers, system engineering, POD Repairs, NGC PDTS.			
FY 2013 Plans: FY13 New computer, P3I, receiver ECP, CEC retrofit, start false alarm VSW Algorithm P3I			
FY 2014 Plans: Continue False Alarm, VSW Algorithm P3I, Increment 2 award			
Title: Integrated Logistics Support:	1.250	1.500	1.250
Articles:	0	0	0
FY 2012 Accomplishments: FY12 Close ILA Findings, provided logistics support to LRIP Units			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2047: *ALMDS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY13 Provide Logistics, maintenance and depot support analysis to LRIP Units. ***FY 2014 Plans:*** FY13 Provide Logistics, maintenance and depot support analysis to LRIP Units.			
Title: Testing and Evaluation: ***Articles:*** ***FY 2012 Accomplishments:*** Completed OA ***FY 2013 Plans:*** Environmental Qualification Test (EQT) and planning for Data Collection Test ***FY 2014 Plans:*** IOT&E Test on LCS and P3I testing. Data Collection Analysis and Report	0.308 0	1.305 0	4.268 0
Title: Project Management: ***Articles:*** ***Description:*** Completion of OA ***FY 2012 Accomplishments:*** TDA Program Management, Financial Management and Contractor support. ***FY 2013 Plans:*** TDA Program Management, Financial Management and Contractor support. ***FY 2014 Plans:*** TDA Program Management, Financial Management and Contractor support.	0.823 0	1.795 0	1.976 0
Accomplishments/Planned Programs Subtotals	9.705	14.371	29.341

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN 4248: *Airborne MCM*	0.000	31.976	15.738		15.738	9.000	0.000	0.000	0.000	0.000	120.866
• OPN 1601: *LCS MCM Mission Modules*	0.000	7.819	7.951		7.951	16.173	16.448	16.728	17.062	105.764	187.945

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2047: *ALMDS*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

The program entered Production and Development Acquisition Phase following MS C in May 2005. August 2007 program authorized to meet full performance in two increments. FRP will be based on Increment 1 performance. In FY13 new competitive awarded FFP production contract is planned. The first LRIP lot of two units was awarded as a new sole-source contract to the SD&D contractor in FY05. This is a Fixed-Price Incentive (FPI) contract with cost and schedule incentives. The March 2006 Program Review decision memorandum approved the ALMDS Program for LRIP 2 procurement of two units for FY07 pending successful demonstration of Engineering Change Proposal (ECP) I performance during DT-IID; DT-IID Phase B was conducted on an SH-60F helicopter and DT-IID phase C will be conducted on an MH-60S helicopter.

E. Performance Metrics

Successfully complete Operational Assessment (OA) and LCS IOT&E and receive Initial Operational Capability (IOC).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2047: *ALMDS*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware/Software Development	WR	NSWC PC:Panama City FL	0.942	0.000	Nov 2011	0.755	Nov 2012	1.940	Nov 2013	-		1.940	0.000	3.637	
Hardware/Software Development	C/CPAF	Northrop Grumman:Melbourne, FL	29.061	0.000	Nov 2011	3.022	Nov 2012	8.920	Nov 2013	-		8.920	0.000	41.003	
Hardware/Software Development	MIPR	Metron:VA	1.083	0.000		0.000		0.000		-		0.000	0.000	1.083	
Hardware/Software Development	C/CPAF	SAIC:VA	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	
Engineering Services1	WR	NSWC PC:Panama City FL	12.265	1.444	Nov 2011	1.985	Nov 2012	3.632	Nov 2013	-		3.632	Continuing	Continuing	Continuing
Engineering Services2	C/CPAF	Northrop Grumman:Melbourne, Fl	16.298	4.074	Nov 2011	1.250	Nov 2012	2.839	Nov 2013	-		2.839	0.000	24.461	
Engineering Services3	SS/CPIF	Various:Various	15.118	1.806	Nov 2011	2.759	Nov 2012	4.516	Nov 2013	-		4.516	Continuing	Continuing	Continuing
Engineering Services4	MIPR	Various:Various	3.922	0.000	Nov 2011	0.000	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Engineering Services5	C/CPAF	Metron/Arete:Various	1.024	0.000	Nov 2011	0.000	Nov 2012	0.000		-		0.000	0.000	1.024	
		Subtotal	79.913	7.324		9.771		21.847		0.000		21.847			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ILS Functions1	WR	NSWC PC:Panama City FL	3.094	0.250	Nov 2011	0.750	Nov 2012	0.750	Nov 2013	-		0.750	Continuing	Continuing	Continuing
ILS Functions2	WR	NrothGru:Melbourne FL	5.725	1.000	Nov 2011	0.750	Nov 2012	0.500	Nov 2013	-		0.500	Continuing	Continuing	Continuing
ILS Functions3	C/CPAF	Various/NRL Stennins:Various	1.062	0.000	Nov 2011	0.000		0.000		-		0.000	0.000	1.062	
ILS Functions4	WR	NSWC PC:Panama City FL	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2047: *ALMDS*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	10.181	1.250		1.500		1.250		0.000		1.250			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing and Evaluation1	C/CPAF	NorthGru:Melbourne FL	14.567	0.308	Nov 2011	0.000	Nov 2013	2.000	Nov 2013	-		2.000	Continuing	Continuing	Continuing
Testing and Evaluation2	WR	NSWC PC:Panama City FL	18.030	0.000		1.305	Nov 2012	2.268	Nov 2013	-		2.268	Continuing	Continuing	Continuing
Testing and Evaluation	C/CPAF	Various:Various	1.894	0.000		0.000		0.000		-		0.000	0.000	1.894	
Testing and Evaluation	WR	NAWC AD PAX:Panama City FL	2.110	0.000		0.000		0.000		-		0.000	0.000	2.110	
		Subtotal	36.601	0.308		1.305		4.268		0.000		4.268			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Support1	C/CPAF	NGC:Various	0.000	0.000	Nov 2011	0.650	Nov 2012	0.650	Nov 2013	-		0.650	0.000	1.300	
Management Support2	WR	NSWC PC:Panama City FL	5.267	0.000	Nov 2011	1.095	Nov 2012	1.276	Nov 2013	-		1.276	0.000	7.638	
Management Support3	WR	ARINC:Panama City FL	1.559	0.773	Nov 2011	0.000	Nov 2012	0.000		-		0.000	0.000	2.332	
DAWDF	Various	Various:Various	0.030	0.050	Nov 2012	0.050	Nov 2012	0.050	Nov 2013	-		0.050	0.000	0.180	
		Subtotal	6.856	0.823		1.795		1.976		0.000		1.976	0.000	11.450	

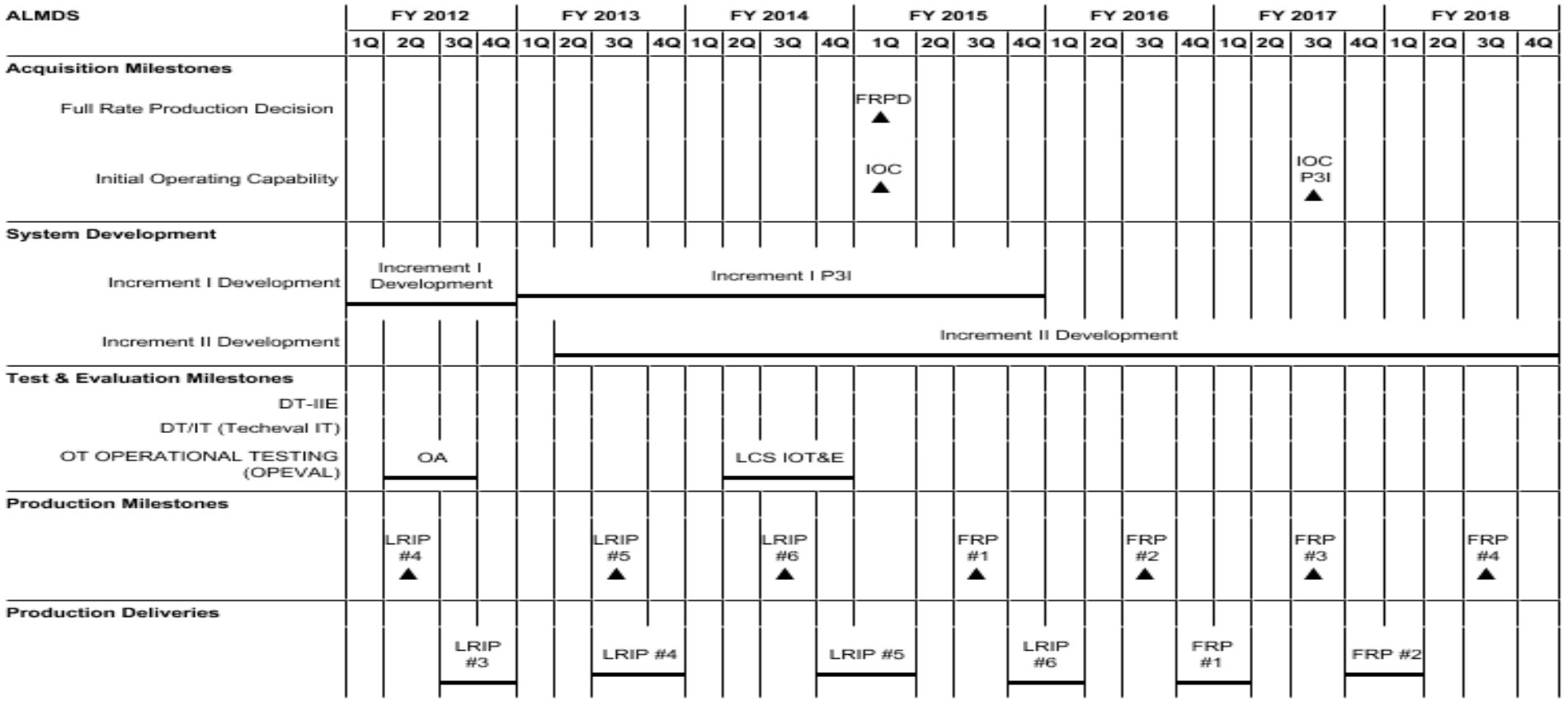
	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	133.551	9.705		14.371		29.341		0.000		29.341			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2047: *ALMDS*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2047: *ALMDS*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	**PROJECT** 2047: *ALMDS*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ALMDS				
Acquisition Milestones: Full Rate Production Decision: Full Rate Production Decision	1	2015	1	2015
Acquisition Milestones: Initial Operating Capability: Initial Operating Capability	1	2015	1	2015
Acquisition Milestones: Initial Operating Capability: Initial Operating Capability P3I	3	2017	3	2017
System Development: Increment I Development: Increment I Development	1	2012	4	2012
System Development: Increment I Development: Increment I P3I	1	2013	4	2015
System Development: Increment II Development: Increment II Development	2	2013	4	2018
Test & Evaluation Milestones: OT OPERATIONAL TESTING (OPEVAL): OPERATIONAL ASSESSMENT (OA)	2	2012	3	2012
Test & Evaluation Milestones: OT OPERATIONAL TESTING (OPEVAL): LCS IOT&E	2	2014	4	2014
Production Milestones: LRIP 4 Units start	2	2012	2	2012
Production Milestones: LRIP 5 Units start	3	2013	3	2013
Production Milestones: LRIP 6 Units start	3	2014	3	2014
Production Milestones: Full Rate Production (FRP) Start (FRP 1)	3	2015	3	2015
Production Milestones: Full Rate Production (FRP) Start (FRP 2)	3	2016	3	2016
Production Milestones: Full Rate Production (FRP) Start (FRP 3)	3	2017	3	2017
Production Milestones: Full Rate Production (FRP) Start (FRP 4)	3	2018	3	2018
Production Deliveries: LRIP 3 Units Deliveries	3	2012	4	2012
Production Deliveries: LRIP 4 Units Deliveries	3	2013	4	2013
Production Deliveries: LRIP 5 Units Deliveries	4	2014	1	2015
Production Deliveries: LRIP 6 Units Deliveries	4	2015	1	2016
Production Deliveries: Full Rate Production Delivery Start (FRP 1)	4	2016	1	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2047: *ALMDS*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Production Deliveries: Full Rate Production Delivery Start (FRP 2)	4	2017	1	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2427: *OASIS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2427: *OASIS*	111.619	3.936	13.028	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	128.583
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Organic Airborne and Surface Influence Sweep (OASIS) system is a towed Minesweeping System to be deployed from specially configured MH-60S helicopters. The system provides a rapid response sweeping capability against bottom and moored, buried, acoustic and magnetic, or combination acoustic/magnetic influence mines in support of mine clearance operations where mine hunting is ineffective. The system consists of a towed body, sweep cable system, power inverter, power distribution unit and storage/shipping containers. System interfaces with the MH-60S helicopter via the carriage, stream, tow and recovery system and the common console. The program is currently in the SD&D phase where three Engineering Development Models (EDMs) are being developed for test and evaluation. Areas of interest for program enhancement include but are not limited to the following: A) Real-time Mission Planning B) Threat Emulation Jamming C) Improved Power Inverter D) Light weight winch drive-train E) Improved magnetic performance.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Product Development:	0.600	2.200	0.000
Articles:	0	0	
FY 2012 Accomplishments: Investigated and began FY12 changes to EDM based upon testing results.			
FY 2013 Plans: FY13 Perform Systems Reliability Improvements			
Title: Engineering and ILS:	1.500	6.222	0.000
Articles:	0	0	
FY 2012 Accomplishments: Conducted PCA, supported DT. Prepared for MSC LRIP Decision			
FY 2013 Plans: FY13 Systems Reliability Improvements, update ILS procedures based upon design changes, Support Operational Testing and prepare for FRP decision.			
Title: Testing:	1.596	4.200	0.000
Articles:	0	0	

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2427: *OASIS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Conducted CT, and started DT events. ***FY 2013 Plans:*** Complete DT, and Operational Assessment (OA). Begin DTII Testing on Design Improvements			
Title: Program Management	0.240	0.406	0.000
Articles:	0	0	
FY 2012 Accomplishments: Monitored contractor progress with regard to schedule, cost, and technical status management and prepared for FRP decision. ***FY 2013 Plans:*** Monitor contractor progress with regard to schedule, cost, and technical status management and prepare for FRP decision			
Accomplishments/Planned Programs Subtotals	3.936	13.028	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN 4248: *Airborne MCM - OASIS*	0.000	10.900	0.000		0.000	0.000	0.000	0.000	0.000	0.000	10.900
• OPN 1601: *LCS MCM Mission Modules*	0.000	3.533	0.000		0.000	0.000	0.000	0.000	0.000	0.000	3.533

Remarks

D. Acquisition Strategy

After Milestone B review in FY02, an SD&D contract was awarded. In FY07, the program successfully completed MH-53 CT and Tower Testing. MH-60 CT is planned for FY11. DT in FY12 and OPEVAL in FY13.

E. Performance Metrics

Successfully complete contractor test on the Body Mounted Electrode (BME) design and receive Milestone C approval.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2427: *OASIS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware/Software Development	C/CPFF	ITT Corp.:Panama City Fl	2.279	0.200	Nov 2011	1.750	Nov 2012	0.000		-		0.000	0.000	4.229	
Hardware/Software Development for BME	C/CPIF	EDO Corp.:NY	12.689	0.000		0.000		0.000		-		0.000	0.000	12.689	
Hardware/Software Development	SS/CPFF	Aeptec Microsystems Inc.:AZ	5.898	0.000		0.000		0.000		-		0.000	0.000	5.898	
Hardware/Software Development	WR	NSWC PC:Panama City Fl	1.176	0.400	Nov 2011	0.450	Nov 2012	0.000		-		0.000	1.473	3.499	
		Subtotal	22.042	0.600		2.200		0.000		0.000		0.000	1.473	26.315	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services	WR	NUWC Keyport:Keyport, WA	0.659	0.000		0.000		0.000		-		0.000	0.000	0.659	
Engineering Services	C/CPIF	EDO/ITT Corp.:Panama City Fl	17.275	0.353	Nov 2011	3.200	Nov 2012	0.000		-		0.000	0.000	20.828	
Engineering Services	WR	NSWC PC:Panama City Fl	18.910	0.358	Nov 2011	1.389	Nov 2012	0.000		-		0.000	0.000	20.657	
Engineering Services	WR	NSWC Carderock MD:Bathesda, MD	0.300	0.000	Nov 2011	0.000		0.000		-		0.000	0.000	0.300	
Engineer Services/ILS	WR	Various:Various	0.548	0.000		0.000		0.000		-		0.000	0.000	0.548	
Engineering Services	WR	ONR:Wash DC	9.960	0.389	Nov 2011	0.783	Nov 2012	0.000		-		0.000	0.499	11.631	
ILS Functions	C/CPIF	EDO Corp.:NY	5.772	0.200	Nov 2011	0.300	Nov 2012	0.000		-		0.000	0.195	6.467	
ILS Functions	WR	NSWC, PC:Panama City Fl	3.613	0.200	Nov 2011	0.550	Nov 2012	0.000		-		0.000	0.412	4.775	
		Subtotal	57.037	1.500		6.222		0.000		0.000		0.000	1.106	65.865	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2427: *OASIS*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
T&E Functions	C/CPIF	ITT Corp:Panama City Fl	8.542	1.300	Nov 2011	0.500	Nov 2012	0.000		-		0.000	0.000	10.342	
T&E Functions	WR	NSWC PC:Panama City FL	16.515	0.296	Nov 2011	3.700	Nov 2012	0.000		-		0.000	0.000	20.511	
T&E Functions	C/CPAF	Various:VAR	0.554	0.000		0.000		0.000		-		0.000	0.000	0.554	
		Subtotal	25.611	1.596		4.200		0.000		0.000		0.000	0.000	31.407	

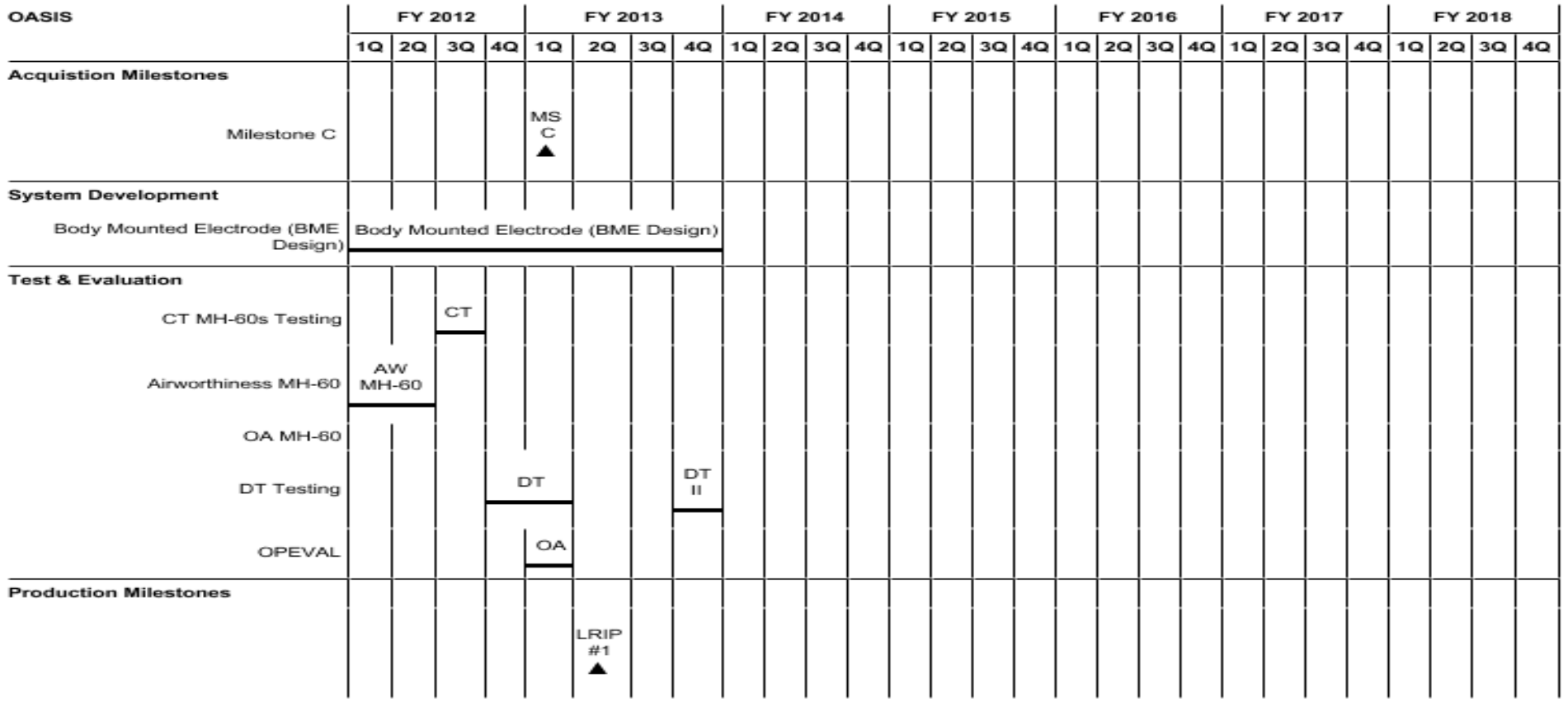
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	C/CPAF	Various:VAR	6.520	0.205	Nov 2011	0.371	Nov 2012	0.000		-		0.000	0.000	7.096	
Travel	WR	NAVSEA:Washington, DC	0.375	0.035	Nov 2011	0.035	Nov 2012	0.000		-		0.000	0.000	0.445	
Acquisition Workforce Fund	Various	Various:Various	0.034	0.000		0.000		0.000		-		0.000	0.000	0.034	
		Subtotal	6.929	0.240		0.406		0.000		0.000		0.000	0.000	7.575	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	111.619	3.936		13.028		0.000		0.000		0.000	2.579	131.162	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2427: *OASIS*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	**PROJECT** 2427: *OASIS*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
OASIS				
Acquistion Milestones: Milestone C: Milestone C	1	2013	1	2013
System Development: Body Mounted Electrode (BME Design): Body Mounted Electrode (BME Design)	1	2012	4	2013
Test & Evaluation: CT MH-60s Testing: CT MH-60s Testing	3	2012	3	2012
Test & Evaluation: Airworthiness MH-60: AW MH-60	1	2012	2	2012
Test & Evaluation: DT Testing: DT	4	2012	1	2013
Test & Evaluation: DT Testing: DT PHASE II	4	2013	4	2013
Test & Evaluation: OPEVAL: OPEVAL	1	2013	1	2013
Production Milestones: LRIP Contract Award	2	2013	2	2013

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2473: *Airborne Mine Neutralization System*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2473: *Airborne Mine Neutralization System*	128.615	16.922	36.864	32.201	-	32.201	25.603	14.192	2.344	2.382	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Airborne Mine Neutralization System (AMNS) is a mine neutralization system, deployed from the MH-60S and MH-53E helicopters using an expendable mine neutralization device.

The AMNS (Archerfish) will be deployed from the MH-60S helicopter with the capability to neutralize bottom, near surface and moored mines using an expendable mine neutralization device. These systems will be deployed from the Littoral Combat Ship and will provide organic airborne mine neutralization capability as part of Littoral Combat Ship (LCS) Mine Warfare Mission Module. This capability will be of critical importance in littoral zones, confined straits, choke points, near surface and the Amphibious Objective Area (AOA).

AMNS (Seafox) will be deployed from the MH-53E helicopter; this effort converts a FY 2003 Rapid Deployment Capability (RDC) decision into a program of record. The development, testing and integration phases will be completed in FY13.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: AMNS: Support	2.740	3.171	5.988
Articles:	0	0	0
FY 2012 Accomplishments: Developed logistics products, including training materials and interactive technical manual. Provided engineering support, including review for product development and integration. Developed Logistics products for untethered Launch and Handling System (LHS). Provided engineering support for untethered LHS.			
FY 2013 Plans: Develop logistics products, including training materials and interactive technical manual. Provide engineering support, including review for product development and integration.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2473: *Airborne Mine Neutralization System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Provide engineering support, including review for product development and integration. Develop logistics product, including training materials and interactive technical manual.			
Title: AMNS: Test and Evaluation	3.095	4.445	4.028
Articles:	0	0	0
FY 2012 Accomplishments: Started MH-60s TECHEVAL (DT) Live Fire			
FY 2013 Plans: Complete MH-60s TECHEVAL (DT) Live Fire. Conduct MH-60s DT/IT, start Operational Assessment (OA)			
FY 2014 Plans: Complete MH-60S Operational Assessment and assist with IOT&E testing on LCS.			
Title: AMNS: Management Services	0.303	1.535	1.538
Articles:	0	0	0
FY 2012 Accomplishments: Provided program management support and travel for AMNS			
FY 2013 Plans: Provide program management support and travel for AMNS			
FY 2014 Plans: Provide program management support and travel for AMNS			
Title: AMNS: Product Development	4.702	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: Developed hardware and software improvements based on results of testing to date.			
Title: AMNS NS: Test and Evaluation	0.000	0.000	5.402
Articles:			0
Description: AMNS NS: Test and Evaluation Near Surface Capability			
FY 2014 Plans: Conduct Tank Test Two, Shipboard testing, 331B requalification and Environmental qualification test.			
Title: AMNS NS (AMNS NEAR SURFACE): Hardware/Software Development	3.078	10.525	11.651

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	**PROJECT** 2473: *Airborne Mine Neutralization System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:	0	0	0
Description: Hardware and Software technology development and demonstration/Engineering Services. ***FY 2012 Accomplishments:*** AMNS NS Conducted PDR/CDR and hardware/software design for Near Surface ***FY 2013 Plans:*** AMNS NS Continue engineering and software development associated with Near Surface prototypes. Continue fabrication of Prototypes #1 and #2. ***FY 2014 Plans:*** AMNS NS Continue engineering and software development associated with Near Surface prototypes. Continue fabrication of Prototypes #1 and #2.			
Title: AMNS NS: ILS	0.676	0.676	0.876
Articles:	0	0	0
Description: AMNS NS Integrated Logistics Support (ILS) ***FY 2012 Accomplishments:*** Developed ILS training and technical maintenance updates for Near Surface. ***FY 2013 Plans:*** ILS Documentation updates for Near Surface. ***FY 2014 Plans:*** ILS training and documentation updates			
Title: AMNS Common Tow Cable	0.000	2.400	0.000
Articles:		0	
Description: OAMCM Common Tow Cable Development ***FY 2013 Plans:*** Develop an improved common tow cable for the OAMCM systems			
Title: AMNS NS: Program Management	2.328	3.012	2.718
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	**PROJECT** 2473: *Airborne Mine Neutralization System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Description: AMNS NS Program Management ***FY 2012 Accomplishments:*** TDA (Technical Direction Agent) Program Management, Financial Management, Contract Management ***FY 2013 Plans:*** TDA Program Management, Financial Management, Contract Management ***FY 2014 Plans:*** TDA Program Management, Financial Management, Contract Management			
Title: AMNS MH-53E ***Articles:*** ***FY 2013 Plans:*** Develop and complete AMNS MH-53E Rapid Deployment Capability (RDC) into a program of record to include engineering, testing, and logistics.	0.000	11.100 0	0.000
Accomplishments/Planned Programs Subtotals	16.922	36.864	32.201

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN 4248 : *Airborne MCM - AMNS (MH-60 & MH-53)*	3.100	2.800	3.000		3.000	0.000	0.000	0.000	0.000	0.000	46.072
• WPN 4225/1: *Airborne MCM - AMNS (MH-60 & MH-53)*	12.203	10.607	15.058		15.058	19.087	15.188	14.888	16.000	16.000	142.438
• OPN 1601: *LCS MCM Mission Modules*	0.000	2.800	3.000		3.000	6.000	6.102	6.206	6.318	39.393	69.819
• OPN 1600: *LCS Mission Modules*	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	7.595

Remarks

D. Acquisition Strategy

AMNS: The Navy awarded six (6) LRIP's to Raytheon in September 2010. Following successful completion of Developmental Testing (Inert) on MH-60S, the Navy awarded four (4) additional LRIP units to Raytheon in September 2011. Following successful completion of Development testing Live on MH-60s, the Navy will award two(2) additional units to Raytheon

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2473: *Airborne Mine Neutralization System*

Following a successful OT on an MH-60S, FRP is planned for FY14. The Navy has awarded a sole source contract to BAE for neutralizer procurements.

E. Performance Metrics

Successfully complete Operational Test (OT) and receive Full Rate Production Decision approval.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2473: *Airborne Mine Neutralization System*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware/Software Development	Various	Various:Various	3.359	0.000		0.000		0.000		-		0.000	0.000	3.359	
Hardware/Software Development	WR	NSWC PC:Panama City, FL	2.102	1.345	Nov 2011	0.000		1.000	Nov 2013	-		1.000	0.000	4.447	
Hardware/Software Development	C/CPAF	Raytheon:Portsmouth, RI	15.982	2.463	Nov 2011	0.000		0.000		-		0.000	0.000	18.445	
Hardware/Software Development	SS/CPIF	Lockheed Martin:Syracuse, NY	3.331	0.000		0.000		0.000		-		0.000	0.000	3.331	
(Near Surface) Hardware/ Software Development	WR	NUWC, NPT:Newport, RI	0.615	2.235	Nov 2011	5.910	Nov 2012	5.820	Nov 2013	-		5.820	0.000	14.580	
(Near Surface) Hardware/ Software Development	C/CPIF	Raytheon:Portsmouth, RI	2.863	1.170	Nov 2011	4.615	Nov 2012	4.831	Nov 2013	-		4.831	0.000	13.479	
(MH-53) Hardware/ Software Development	Various	Various:Various	0.000	0.000		11.100	Nov 2012	0.000		-		0.000	0.000	11.100	
(Tow Cable) Hardware Development	C/CPIF	TBD:TBD	0.000	0.000		2.400	Dec 2012	0.000		-		0.000	0.000	2.400	
		Subtotal	28.252	7.213		24.025		11.651		0.000		11.651	0.000	71.141	

Remarks

BOTH AMNS and AMNS NS

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
(AMNS) Engineering Services	WR	NSWC:Panama City, FL	23.849	0.750	Nov 2011	1.488	Nov 2012	2.092	Nov 2013	-		2.092	Continuing	Continuing	Continuing
(AMNS) Engineering Services	C/CPIF	Raytheon:Portsmouth, RI	12.283	1.795	Nov 2011	0.886	Nov 2012	2.886	Nov 2013	-		2.886	Continuing	Continuing	Continuing
(AMNS) ILS Functions	WR	NSWC PC:Panama City, FL	3.220	0.250	Nov 2011	0.496	Nov 2012	0.709	Nov 2013	-		0.709	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2473: *Airborne Mine Neutralization System*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
(AMNS) ILS Functions	C/CPIF	Raytheon:Portsmouth, RI	2.684	0.000		0.301	Nov 2012	0.301	Nov 2013	-		0.301	Continuing	Continuing	Continuing
(Near Surface) ILS Functions	WR	NUWC, NPT:Newport, RI	0.000	1.283	Nov 2011	0.676	Nov 2012	0.876	Nov 2013	-		0.876	Continuing	Continuing	Continuing
		Subtotal	42.036	4.078		3.847		6.864		0.000		6.864			

Remarks

BOTH AMNS and AMNS NS

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	Various	Various:Various	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	
Development Test & Evaluation	SS/CPFF	Lockheed Martin:Syracuse, NY	1.254	0.000		0.000		0.000		-		0.000	0.000	1.254	
Operational Test & Evaluation	SS/CPFF	Lockheed Martin:Syracuse, NY	0.767	0.000		0.000		0.000		-		0.000	0.000	0.767	
Test Assets	C/CPIF	Raytheon:Portsmouth, RI	3.310	0.000		0.000		0.000		-		0.000	0.000	3.310	
(AMNS) Development Test & Evaluation	WR	NSWC, PC:Panama City, FL	29.933	0.000		2.424	Nov 2012	0.000		-		0.000	0.000	32.357	
(AMNS) Development Test & Evaluation	C/CPIF	Raytheon:Portsmouth, RI	8.969	1.000	Nov 2011	0.745	Nov 2012	0.000		-		0.000	0.000	10.714	
(AMNS) Operational Test & Evaluation	WR	COTF:Norfolk, VA	1.888	2.000	Nov 2011	1.276	Nov 2012	4.028	Nov 2013	-		4.028	Continuing	Continuing	Continuing
(Near Surface) Development Test and Evaluations	WR	NUWC, NPT:Newport, RI	0.000	0.000		0.000		4.635	Nov 2013	-		4.635	0.000	4.635	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2473: *Airborne Mine Neutralization System*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
(Near Surface) Development Test and Evaluations	C/CPIF	Raytheon:Portsmouth, RI	0.000	0.000		0.000		0.767	Nov 2013	-		0.767	0.000	0.767	
		Subtotal	46.421	3.000		4.445		9.430		0.000		9.430			

Remarks

BOTH AMNS and AMNS NS

AMNS: Operational Assessment (OA) is covered in FY13 and FY14 above, However Operational Testing (OT) in FY14 is funded by LCS program office and is not captured above.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
(AMNS) Program Management Support	C/CPFF	Various:Various	6.289	0.100	Nov 2011	0.318	Nov 2012	0.321	Nov 2013	-		0.321	0.158	7.186	
(AMNS) Program Management Support	C/CPIF	Raytheon:Portsmouth, RI	0.000	0.183	Apr 2012	0.654	Nov 2012	0.654	Nov 2013	-		0.654	0.199	1.690	
(AMNS) Program Management Support	Various	Field Activity:Various	0.000	1.280	Nov 2011	0.543	Nov 2012	0.543	Nov 2013	-		0.543	4.385	6.751	
(AMNS) Travel	Allot	NAVSEA:Washington, DC	0.000	0.048	Nov 2011	0.020	Nov 2012	0.020	Nov 2013	-		0.020	7.209	7.297	
(Near Surface) Management Support	Various	Various:Various	0.464	1.020	Nov 2011	3.012	Nov 2012	2.718	Nov 2013	-		2.718	0.040	7.254	
DAWDF	Sub Allot	NAVSEA:Washington, DC	5.153	0.000	Nov 2011	0.000	Nov 2012	0.000		-		0.000	0.000	5.153	
		Subtotal	11.906	2.631		4.547		4.256		0.000		4.256	11.991	35.331	

Remarks

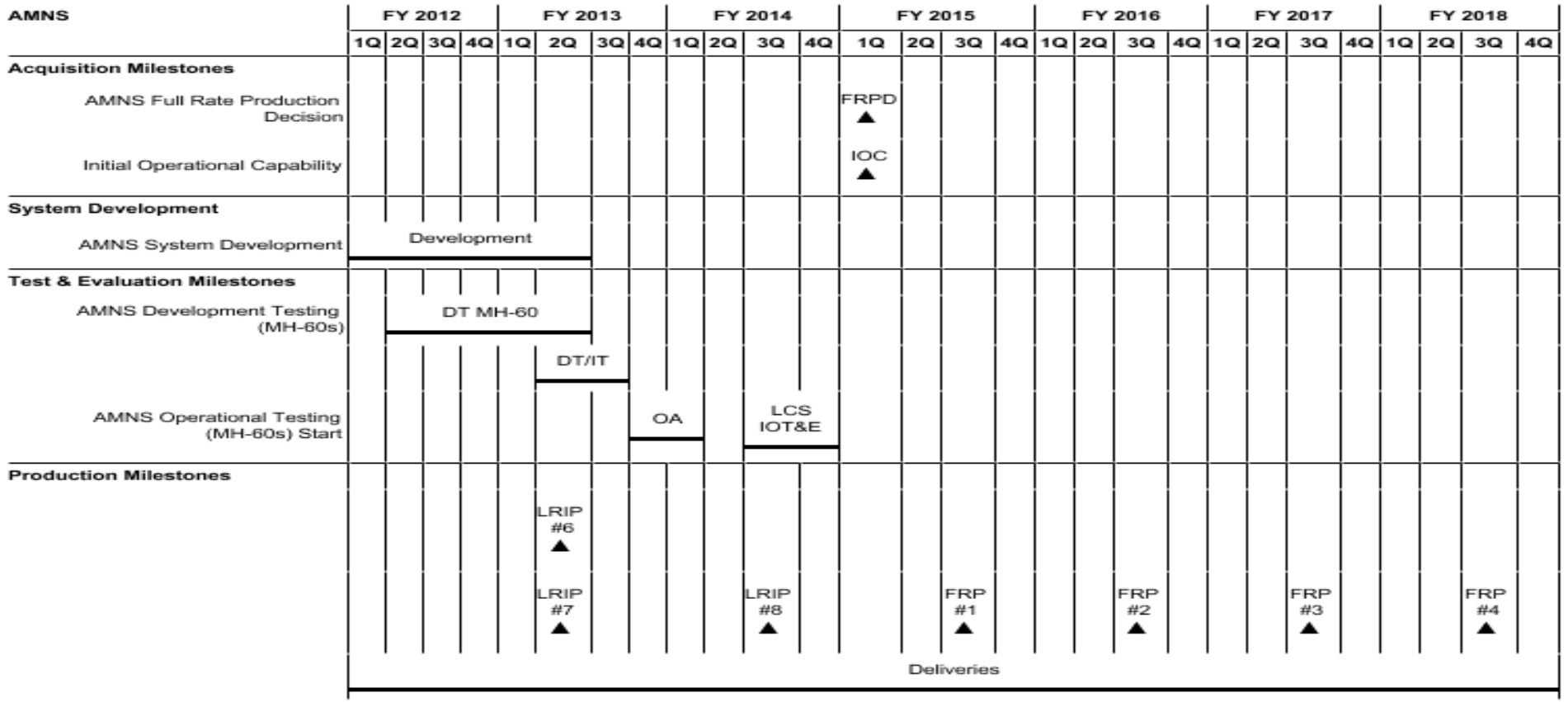
BOTH AMNS and AMNS NS

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2473: *Airborne Mine Neutralization System*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	128.615	16.922		36.864		32.201		0.000		32.201			

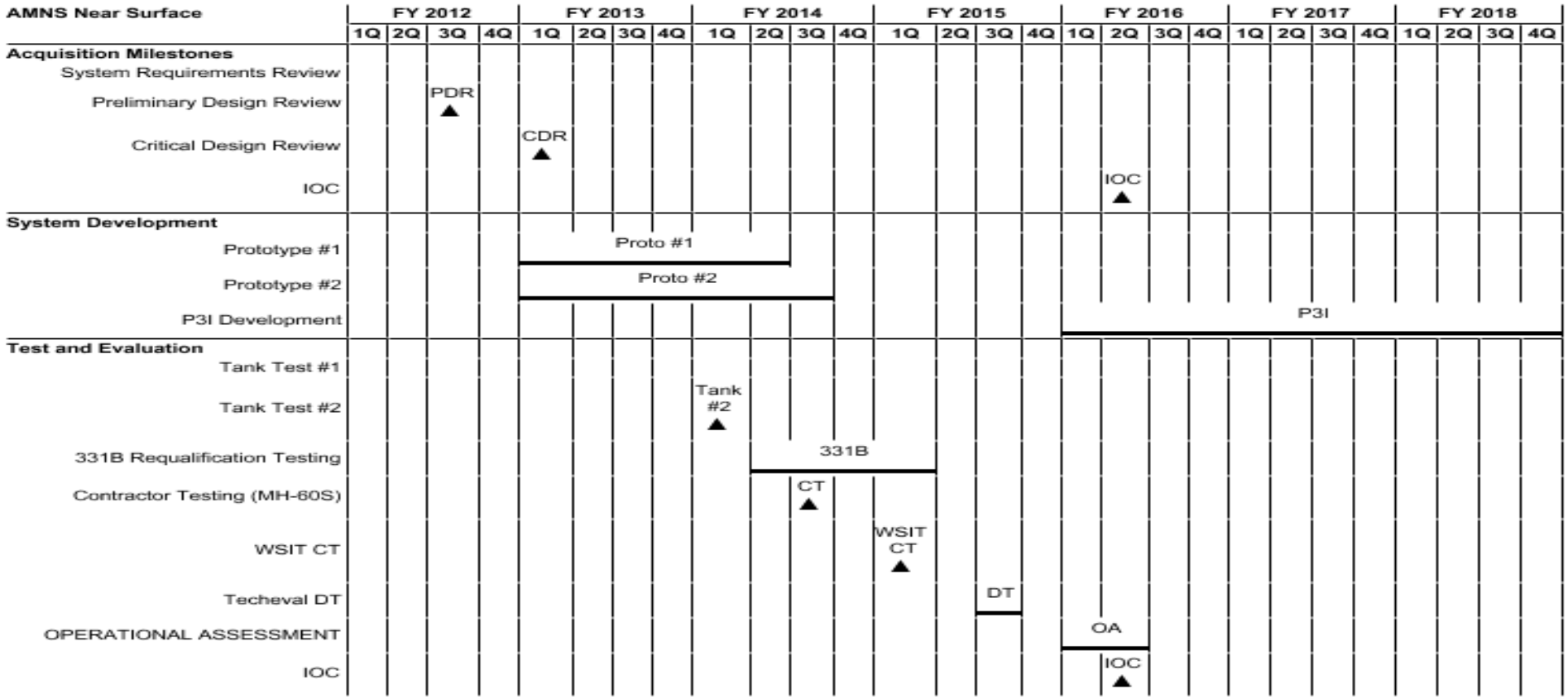
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2473: *Airborne Mine Neutralization System*



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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 2473: *Airborne Mine Neutralization System*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	**PROJECT** 2473: *Airborne Mine Neutralization System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
AMNS				
Acquisition Milestones: AMNS Full Rate Production Decision: AMNS FRPD	1	2015	1	2015
Acquisition Milestones: Initial Operational Capability: Initial Operational Capability	1	2015	1	2015
System Development: AMNS System Development: AMNS System Development	1	2012	2	2013
Test & Evaluation Milestones: AMNS Development Testing (MH-60s): AMNS Development Testing (MH-60s)	2	2012	2	2013
Test & Evaluation Milestones: AMNS Development Testing (MH-60s): DT/IT	2	2013	3	2013
Test & Evaluation Milestones: AMNS Operational Testing (MH-60s) Start: Operational Assessment	4	2013	1	2014
Test & Evaluation Milestones: AMNS Operational Testing (MH-60s) Start: IOT&E	3	2014	4	2014
Production Milestones: AMNS LRIP (FY12)	2	2013	2	2013
Production Milestones: AMNS LRIP (FY13)	2	2013	2	2013
Production Milestones: AMNS LRIP (FY14)	3	2014	3	2014
Production Milestones: AMNS FRP (FY15)	3	2015	3	2015
Production Milestones: AMNS FRP (FY16)	3	2016	3	2016
Production Milestones: AMNS FRP (FY17)	3	2017	3	2017
Production Milestones: AMNS FRP (FY18)	3	2018	3	2018
Production Milestones: Production Deliveries	1	2012	4	2018
AMNS Near Surface				
Acquisition Milestones: Preliminary Design Review: Preliminary Design Review	3	2012	3	2012
Acquisition Milestones: Critical Design Review: Critical Design Review	1	2013	1	2013
Acquisition Milestones: IOC: IOC	2	2016	2	2016
System Development: Prototype #1: Prototype #1	1	2013	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
System Development: Prototype #2:	1	2013	3	2014
System Development: P3I Development: P3I	1	2016	4	2018
Test and Evaluation: Tank Test #2:	1	2014	1	2014
Test and Evaluation: 331B Requalification Testing: 331B Requalification Testing	2	2014	1	2015
Test and Evaluation: Contractor Testing (MH-60S): Contractor Testing (MH-60S)	3	2014	3	2014
Test and Evaluation: WSIT CT:	1	2015	1	2015
Test and Evaluation: Techeval DT:	3	2015	3	2015
Test and Evaluation: OPERATIONAL ASSESSMENT: OA	1	2016	2	2016
Test and Evaluation: IOC:	2	2016	2	2016

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
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COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
4026: *Strat Into Medal, Tactics & Trng Organic Force*	15.736	1.730	3.573	5.230	-	5.230	7.923	7.386	9.411	9.562	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The C4I, Tactics, Mission Planning (CTMP), and Post-Mission Analysis (PMA) program began in FY97 as an initiative to provide near-real-time data linking of mine sensor data between the MH-53E aircraft and ship- and/or shore-based command centers. Additionally, the program began to develop MEDAL modules for each "Next Generation" system; and plans to develop "Next Generation" tactics; provide threat data and system requirements and capabilities to the MEDAL software development effort; and develop Net-Centric Sensor Analysis for Mine Warfare (NSAM) as a common post-mission sensor analysis tool for "Next Generation" systems.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Hardware/Software Development	0.825	2.074	3.465
Articles:	0	0	0
FY 2012 Accomplishments: Coded system-specific OPMA Modules, including Organic Airborne Mine Countermeasures (OAMCM)systems mission analysis			
FY 2013 Plans: Code system-specific OPMA Modules NSAM (Net-centric Sensor Analysis for Mine Warfare) Open Architecture development			
FY 2014 Plans: NSAM Open Architecture development			
Title: Engineering Services/ILS:	0.800	1.278	1.522
Articles:	0	0	0
FY 2012 Accomplishments: ILS conducted for OPMA			
FY 2013 Plans: ILS planning for OPMA NSAM Engineering support			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 4026: *Strat Into Medal, Tactics & Trng Organic Force*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Engineering Support for AQS-20A P3I ***FY 2014 Plans:*** Update ALMDS & AMNS TACMEMOs NSAM Engineering Support			
Title: Management Support	0.105	0.221	0.243
Articles:	0	0	0
FY 2012 Accomplishments: Provided CTMP management support ***FY 2013 Plans:*** CTMP management support NSAM Management Support ***FY 2014 Plans:*** CTMP management support			
Accomplishments/Planned Programs Subtotals	1.730	3.573	5.230

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Organic Post-Mission Analysis (OPMA) capability for the OAMCM systems will be developed by NSWC PC, Panama City, FL. The OPMA project will leverage existing system-specific developmental PMA software, maximize commonality, and host the software on a common shipboard computer. OPN funding will be used to procure ruggedized portable OPMA computers for ship of opportunity deployments, land basing, and training. NSWC-PC will contract for this work on a time and materials basis. The tactics development, tactics training, and tactics algorithms/database efforts are performed by NSWC-PC. These efforts will provide reach back support as the OAMCM systems begin to be fielded; will develop modifications to environmental databases necessary to support OAMCM mission planning; will update the MIW Tactics Continuum to address OAMCM; and will update the gear and mine database for threats addressed by the OAMCM systems.

NSAM will merge capabilities of OPMA and NAVO's Evironmental PMA (EPMA) capabilities into an Open Architecture framework. Incremental Build One will Utlize government teams to expedite fielding significant contact management and data fusion techniques.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	**PROJECT** 4026: *Strat Into Medal, Tactics & Trng Organic Force*

E. Performance Metrics

Successfully integrate CTMP into the fleet.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Software Development	WR	NSWC PC:Panama City FL	8.973	0.825	Nov 2011	1.824	Nov 2012	3.115	Nov 2013	-		3.115	0.000	14.737	
Hardware/Software Development	WR	NAVO Bay:St. Louis, MO	0.000	0.000		0.250	Nov 2012	0.350	Nov 2013	-		0.350	0.000	0.600	
		Subtotal	8.973	0.825		2.074		3.465		0.000		3.465	0.000	15.337	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services	WR	SSC-PAC:Various	0.000	0.040	Nov 2011	0.040	Nov 2012	0.040	Nov 2013	-		0.040	Continuing	Continuing	Continuing
Engineering Services	WR	NSWC PC:Panama City FL	4.958	0.545	Nov 2011	0.938	Nov 2012	1.170	Nov 2013	-		1.170	Continuing	Continuing	Continuing
Engineering Services	WR	NAVO Bay:St. Louis, MO	0.000	0.125	Nov 2011	0.100	Nov 2012	0.112	Nov 2013	-		0.112	0.000	0.337	
ILS	WR	NSWC PC:Panama City FL	0.910	0.090	Nov 2011	0.200	Nov 2012	0.200	Nov 2013	-		0.200	Continuing	Continuing	Continuing
		Subtotal	5.868	0.800		1.278		1.522		0.000		1.522			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Support	WR	NSWC PC:Panama City FL	0.882	0.105	Dec 2011	0.221	Mar 2013	0.243	Nov 2013	-		0.243	Continuing	Continuing	Continuing
Acquisition Workforce Fund	Various	Various:Various	0.013	0.000		0.000	Nov 2012	0.000		-		0.000	0.000	0.013	
		Subtotal	0.895	0.105		0.221		0.243		0.000		0.243			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 4026: *Strat Into Medal, Tactics & Trng Organic Force*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.736	1.730		3.573		5.230		0.000		5.230			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	**PROJECT** 4026: *Strat Into Medal, Tactics & Trng Organic Force*

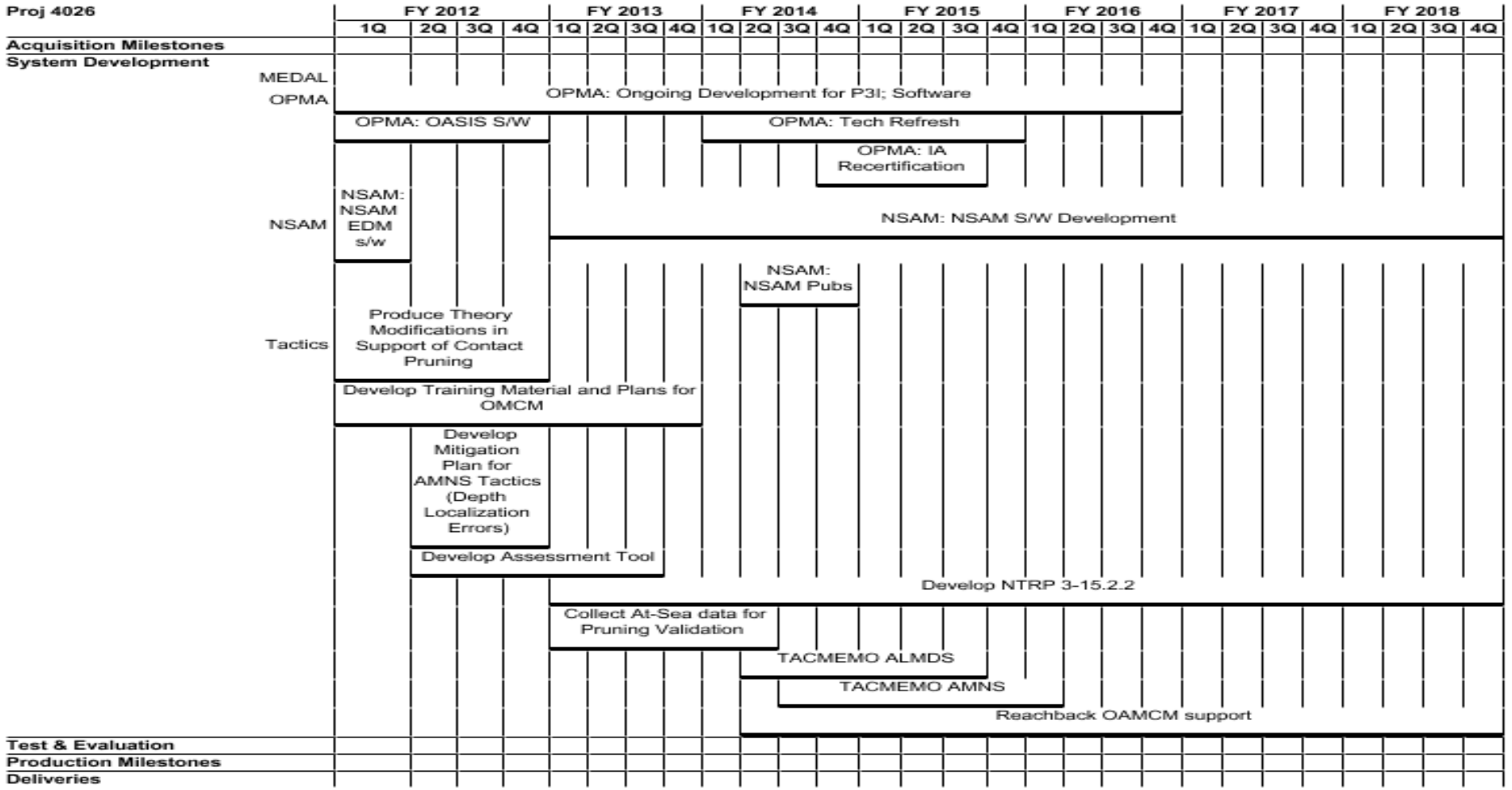


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 4026: *Strat Into Medal, Tactics & Trng Organic Force*

2014OSD - 0604373N - 4026

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 4026: *Strat Into Medal, Tactics & Trng Organic Force*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 4026				
System Development: OPMA: OPMA: Ongoing Development for Sensor P3I; Software	1	2012	4	2016
System Development: OPMA: OPMA: OASIS S/W	1	2012	4	2012
System Development: OPMA: OPMA: Tech Refresh to address Window XP End of Life	1	2014	4	2015
System Development: OPMA: OPMA: IA Recertification	4	2014	3	2015
System Development: NSAM: NSAM: NSAM EDM s/w	1	2012	1	2012
System Development: NSAM: NSAM: NSAM S/W Development	1	2013	4	2018
System Development: NSAM: NSAM: NSAM Pubs	2	2014	4	2014
System Development: Tactics: Produce Theory Modifications in Support of Contact Pruning	1	2012	4	2012
System Development: Tactics: Develop Training Material and Plans for OMCM	1	2012	4	2013
System Development: Tactics: Develop Mitigation Plan for AMNS Tactics (Depth Localization Errors)	2	2012	4	2012
System Development: Tactics: Develop Assessment Tool	2	2012	3	2013
System Development: Tactics: Develop NTRP 3-15.2.2	1	2013	4	2018
System Development: Tactics: Collect At-Sea data for Pruning Validation	1	2013	2	2014
System Development: Tactics: TACMEMO ALMDS	2	2014	3	2015
System Development: Tactics: TACMEMO AMNS	3	2014	1	2016
System Development: Tactics: Reachback OAMCM support	2	2014	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 9179: *Surf Navy Integ Undersea Tactical Tech*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9179: *Surf Navy Integ Undersea Tactical Tech*	2.530	0.881	0.897	0.905	-	0.905	0.926	0.935	0.952	0.968	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Surface Navy Integrated Undersea Tactical Technology (SNIUTT) will be used to develop an AN/SQQ-32, AN/AQS-14, AN/AQS-24 and AN/AQS-20A sensor training modules and future Organic Airborne Mine Countermeasures (OAMCM) Sensor Training Modules.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Hardware and Software Development	0.754	0.770	0.773
Articles:	0	0	0
FY 2012 Accomplishments: Developed AN/AQQ-32, AN/AQS-24, AN/AQS-20A sonar training modules. Also developed Scenario Generator software system for REMUS for mine like contact recognition training and ALMDS training modules.			
FY 2013 Plans: Development of an AN/AQQ-32, AN/AQS-24, AN/AQS-20A sonar training module. Also development of a Scenario Generator software system for REMUS for mine like contact recognition training and ALMDS training modules.			
FY 2014 Plans: Development of an AN/AQQ-32, AN/AQS-24, AN/AQS-20A sonar training module. Also development of a Scenario Generator software system for REMUS for mine like contact recognition training and ALMDS training modules.			
Title: Engineering and ILS Services	0.127	0.127	0.132
Articles:	0	0	0
FY 2012 Accomplishments: Provided SNIUTT In-Service Engineering Agent (ISEA) and development support.			
FY 2013 Plans: Provide SNIUTT In-Service Engineering Agent (ISEA) and development support.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 9179: *Surf Navy Integ Undersea Tactical Tech*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Provide SNIUTT In-Service Engineering Agent (ISEA) and development support.			
Accomplishments/Planned Programs Subtotals	0.881	0.897	0.905

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN 4248: *Airborne MCM - SNIUTT*	0.300	0.300	0.306		0.306	0.312	0.312	0.312	0.350	0.000	2.672

Remarks

D. Acquisition Strategy

Surface Navy Integrated Undersea Tactical Training (SNIUTT) has been used to develop an AN/SQQ-32, AN/AQS-14, AN/AQS-24 and AN/AQS-20A sensor training modules. Funds will continue to support training for these four sonar systems, as well as training for the REMUS sonar systems and other OAMCM systems in the same format as previous training. The SNIUTT sensor training modules will be developed by NSWC PC, Panama City, FL, in association with Advanced Acoustic Concepts (AAC), Ronkonkoma, NY. NSWC PC will contract with AAC for this work under a Cost Plus Fixed-Fee (CPFF) scenario. Funds are being provided for development and delivery of refresher scenario based contact recognition training, and the update and modification of contact recognition training (interactive web based training and proficiency focused stand-alone training) in support of the SNIUTT program.

E. Performance Metrics

Successfully integrate SNIUTT into the school house training facility.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604373N: *Airborne Mine Countermeasures (AMCM)*	PROJECT 9179: *Surf Navy Integ Undersea Tactical Tech*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Software Development	WR	NSWC PC:Panama City Fl	2.152	0.764	Nov 2011	0.770	Nov 2012	0.773	Dec 2013	-		0.773	Continuing	Continuing	Continuing
		Subtotal	2.152	0.764		0.770		0.773		0.000		0.773			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ISEA	WR	NSWC, PC:Panama City FL	0.375	0.117	Nov 2011	0.127	Nov 2012	0.132	Nov 2013	-		0.132	0.000	0.751	
		Subtotal	0.375	0.117		0.127		0.132		0.000		0.132	0.000	0.751	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DAWDF	Various	Various:Various	0.003	0.000		0.000		0.000		-		0.000	0.000	0.003	
		Subtotal	0.003	0.000		0.000		0.000		0.000		0.000	0.000	0.003	

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.530	0.881		0.897		0.905		0.000		0.905			

Remarks

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	10.568	10.080	-	10.080	10.111	3.847	3.280	3.265	Continuing	Continuing
3327: *MAGTF EW Aviation Development*	0.000	0.000	10.568	10.080	-	10.080	10.111	3.847	3.280	3.265	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program element includes development of Electronic Warfare (EW) systems for the United States Marine Corps (USMC) tactical aircraft, USMC helicopters, unmanned air vehicles, data link vulnerability assessments, precision targeting, USN and USMC radio frequency jammers, and development and testing of EW devices on emerging platforms to combat emerging threats and emergency contingencies.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	0.000	10.568	12.203	-	12.203
Current President's Budget	0.000	10.568	10.080	-	10.080
Total Adjustments	0.000	0.000	-2.123	-	-2.123
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	-0.026	-	-0.026
• Rate/Misc Adjustments	0.000	0.000	-2.097	-	-2.097

Change Summary Explanation

* Prior to FY13, this program was funded under PE 0604270N, PU 3327.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*

Intrepid Tiger II (ALQ-231) EOC slid from first quarter FY2012 to third quarter FY2012 due to the correction of deficiencies identified in testing. IOC is quantity-driven and slid from third quarter FY2012 to first quarter FY2014 due to Congressional Mark to FY2012 APN budget that reduced procurement quantity. Block 1 Test/QRA was added after approval of Rapid Deployment Capability (RDC) request for F/A-18C/D platform.

Software Reprogrammable Payload IOC shifted from fourth quarter FY2013 to third quarter FY2016 due to delays in testing and shift to spiral development strategy. FOC was deleted due to changes in fielding profile. JCTD was replaced with KC-130 Tech Demo.

Electronic Warfare Battle Management Schedule shifted from first quarter FY2013 to first quarter FY2014 due to OCO funding reduction in FY2013. Operational Evaluation of IP Based EWBM on EA-6B was deleted due to pending sundown of that platform and renewed focus on platform-agnostic approach as part of the MAGTF EW 2020 vision.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*	PROJECT 3327: *MAGTF EW Aviation Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3327: *MAGTF EW Aviation Development*	0.000	0.000	10.568	10.080	-	10.080	10.111	3.847	3.280	3.265	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project unit supports the United States Marine Corps development of Marine Air Ground Task Force (MAGTF) Electronic Warfare (EW) and the various elements of its distributed System of Systems (SoS) that support the Commandant of the Marine Corps' Strategy and Vision 2025 and Joint Vision 2025. The SoS will address MAGTF EW sufficiency gaps in the areas of Electronic Attack, EW Support, and Electronic Protection with a multitude of payloads designed for carriage on a variety of organic MAGTF air and ground assets. Payload development plans follow an adaptable, modular and open architecture philosophy to combat the increasing capability gap and enable future growth at a reduced operational and sustainment cost.

Prior to FY11, Intrepid Tiger II efforts were budgeted under Program Element (PE) 0604270N, Project Unit (PU) 0556.
In FY12, Intrepid Tiger II efforts were budgeted under PE 0604270N, PU 3327

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: MAGTF EW Software Reprogrammable Payload (SRP)	0.000	4.633	4.075
Articles:		0	0
FY 2013 Plans: Continue transition of SRP and associated components; Collaborative EW/EW Battle Management, EW Services Architecture (formerly Collaborative Online Reconnaissance Provider Operationally Responsive Attack Link), and Intrepid Tiger II(v)2 from its Joint Capabilities Technology Demonstration into a viable capability.			
FY 2014 Plans: Continue transition of SRP and associated components; Collaborative EW/EW Battle Management, EW Services Architecture (formerly Collaborative Online Reconnaissance Provider Operationally Responsive Attack Link), and Intrepid Tiger II(v)2 from its Joint Capabilities Technology Demonstration into a viable capability.			
Title: Intrepid Tiger II (v)1 (ALQ-231)	0.000	4.735	4.164
Articles:		0	0
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*	PROJECT 3327: *MAGTF EW Aviation Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Integrate Intrepid Tiger II (v)1 (ALQ-231) on United States Marine Corps rotary wing platforms to include AH-1 and UH-1 Type/Model/Series. Continue to mature hardware technology, update targeting techniques, and correct identified software discrepancies. Implement logistics plans to support and sustain rotary wing requirements. ***FY 2014 Plans:*** Continue to integrate Intrepid Tiger II (v)1 (ALQ-231) on United States Marine Corps rotary wing platforms to include AH-1 and UH-1 Type/Model/Series and begin efforts to integrate Intrepid Tiger II (v)1 (ALQ-231) on unmanned aerial vehicle (UAV) platforms. Continue to mature hardware technology, update targeting techniques, and correct identified software discrepancies. Implement logistics plans to support and sustain unmanned aerial vehicle requirements.			
Title: EA-6B Multifunctional Information Distribution System Block Upgrade	0.000	1.200	1.841
Articles:		0	0
FY 2013 Plans: Development and testing of the Link-16 modification. These data link enhancements will enable the EA-6B Improved Capability III continued participation within Force Net and synthesize electronic attack contributions within Network Centric Warfare to provide greater Electronic Warfare (EW) situational awareness to the warfighter. ***FY 2014 Plans:*** Begin integration and continue testing of Link-16 modification. Link 16 Provides a North Atlantic Treaty Organization (NATO) interoperable, jam-resistant, high speed, encrypted data link for Precise Participant Location and Identification, Surveillance, Command and Control, and Electronic Warfare & Coordination. Multifunctional Information Distribution System (MIDS) Block Upgrade 2 will address obsolescence (which is an National Security Agency mandated change), frequency reallocation and provide enhanced throughput. Will modify existing MIDS Low Volume Terminal (LVT) units on the aircraft. Will add additional circuit cards, and modify chassis to enable the cryptographic modernization requirement.			
Accomplishments/Planned Programs Subtotals	0.000	10.568	10.080

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• 0587: *MAGTF EW for Aviation*	0.489	34.127	14.431		14.431	15.125	8.001	6.073	6.165	Continuing	Continuing

Remarks

D. Acquisition Strategy

This project unit is part of United States Marine Corps led efforts to ensure Marine Corps requirements are included in the budget process for the Future Year Defense Program and beyond. These efforts include Software Reprogrammable Payload, Intrepid Tiger II(v)1 (ALQ-231), Intrepid Tiger II(v)2, Collaborative Electronic Warfare

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*	PROJECT 3327: *MAGTF EW Aviation Development*

(EW)/EW Battle Management, EW Payload, and EW Service Architecture (formerly Collaborative Online Reconnaissance Provider Operationally Responsive Attack Link). These programs are the Marine Corps' initial steps to create systems to distribute EW capability across the battle space with the intent of replacing EA-6B capabilities for the Marine Air Ground Task Force (MAGTF) by 2019.

E. Performance Metrics

Successful completion of Intrepid Tiger II(v)1 (ALQ-231) Initial Operations Capability (IOC). Completion of Intrepid Tiger II(v)1 (ALQ-231) integration on USMC rotary wing platforms. Engineering Development Model (EDM) Lot 3 Developmental Testing/Operational Testing.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*	PROJECT 3327: *MAGTF EW Aviation Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NAWC AD:Patuxent River, MD	0.000	0.000		0.200	Nov 2012	0.313	Nov 2013	-		0.313	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC:Various	0.000	0.000		0.188	Nov 2012	0.191	Nov 2013	-		0.191	Continuing	Continuing	Continuing
Systems Engineering	WR	Naval Research Lab:Washington, DC	0.000	0.000		5.243	Dec 2012	4.585	Dec 2013	-		4.585	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWC WD:Pt. Mugu, CA	0.000	0.000		1.341	Nov 2012	1.773	Nov 2013	-		1.773	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		6.972		6.862		0.000		6.862			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Eng & Tech Srvc (Non-FFRDC)	Various	Various:Various	0.000	0.000		1.296	Nov 2012	1.287	Nov 2013	-		1.287	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		1.296		1.287		0.000		1.287			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing	WR	NAWC AD:Patuxent River, MD	0.000	0.000		1.600	Nov 2012	1.255	Nov 2013	-		1.255	Continuing	Continuing	Continuing
Flight Testing	WR	NAWC WD:China Lake, CA	0.000	0.000		0.700	Nov 2012	0.676	Nov 2013	-		0.676	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		2.300		1.931		0.000		1.931			

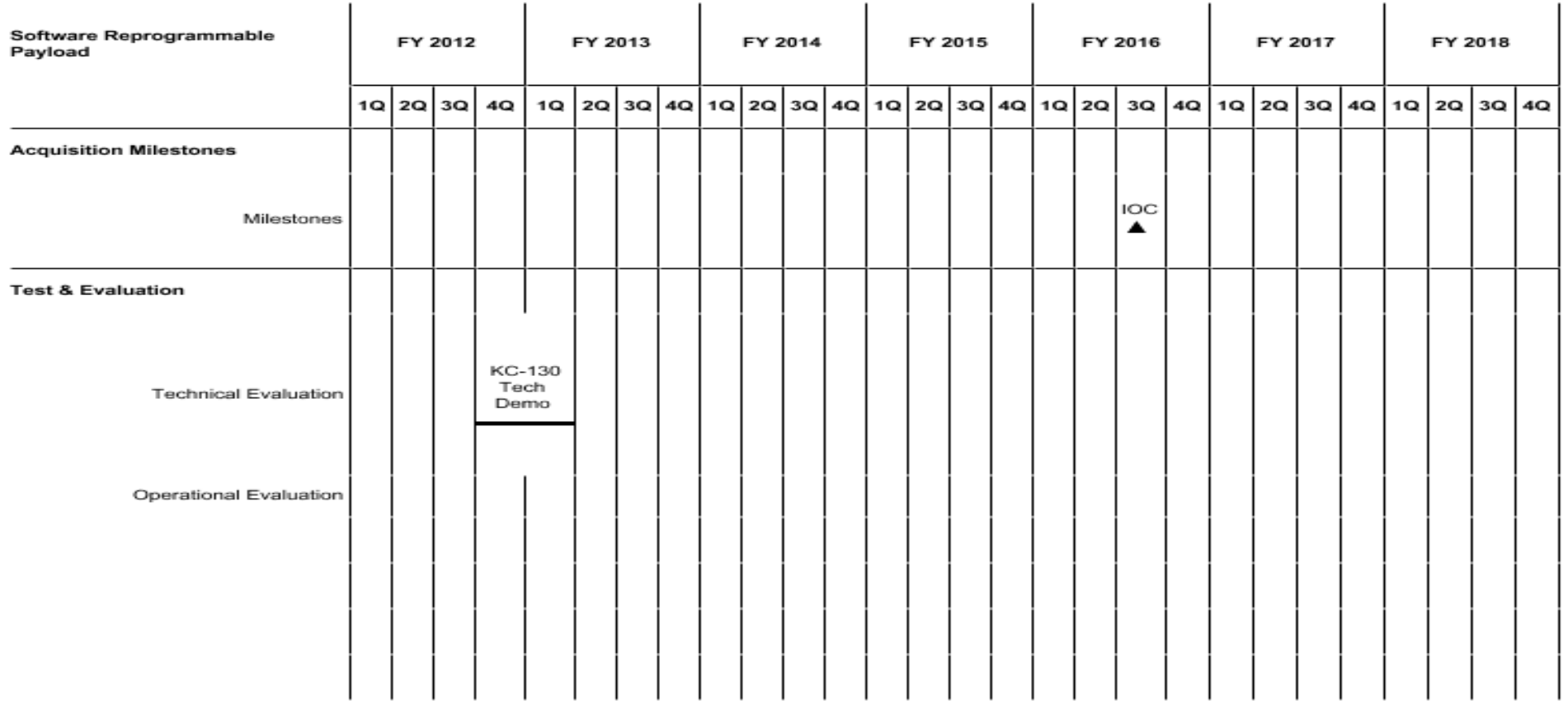
	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		10.568		10.080		0.000		10.080			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*	PROJECT 3327: *MAGTF EW Aviation Development*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

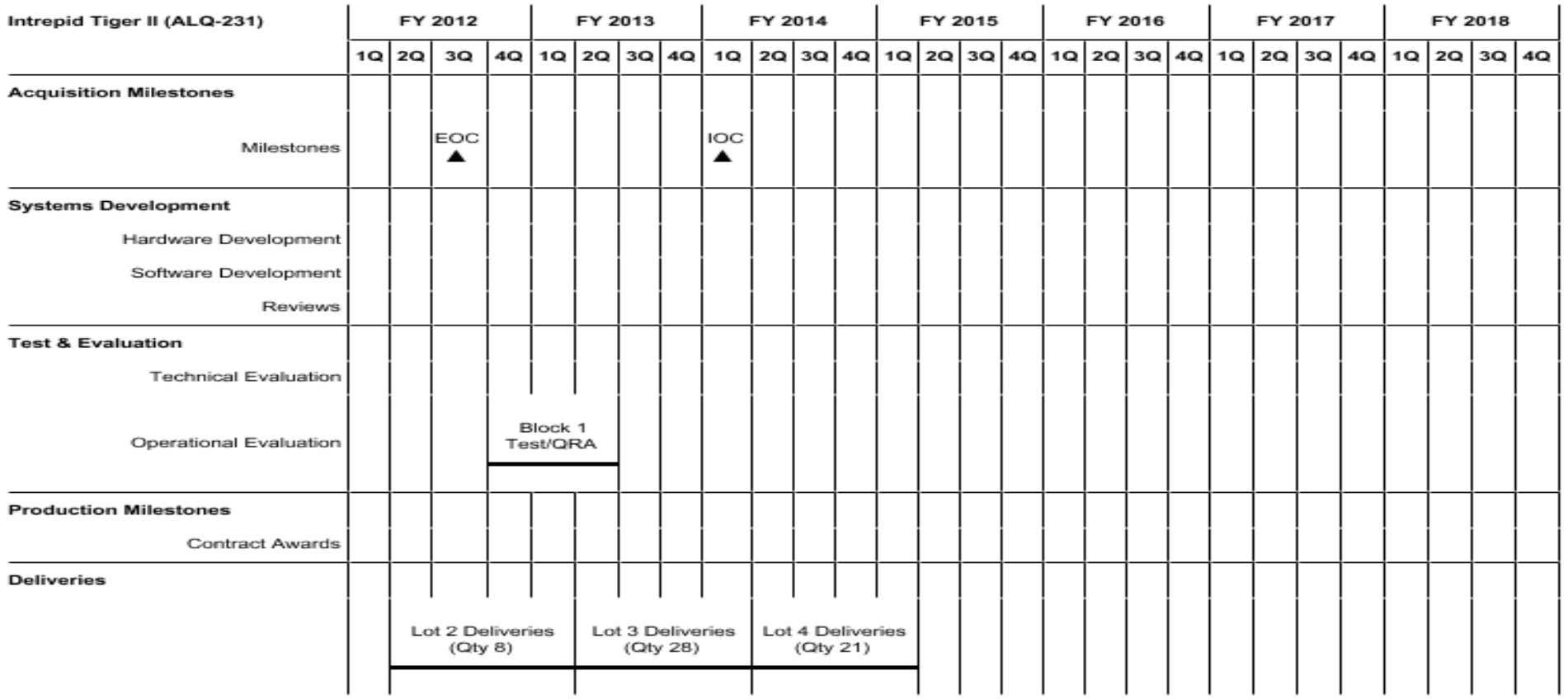
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*	PROJECT 3327: *MAGTF EW Aviation Development*



2014PB - 0604376M - 3327

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*	PROJECT 3327: *MAGTF EW Aviation Development*



2014PB - 0604376M - 3327

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604376M: *(U)Marine Air Grnd Task Force(MAGTF)EW for Aviatio*	**PROJECT** 3327: *MAGTF EW Aviation Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Software Reprogrammable Payload				
Acquisition Milestones: Milestones: Initial Operational Capability (IOC)	3	2016	3	2016
Test & Evaluation: Technical Evaluation: KC-130 Technical Demonstration	4	2012	1	2013
Intrepid Tiger II (ALQ-231)				
Acquisition Milestones: Milestones: Early Operational Capability (EOC)	3	2012	3	2012
Acquisition Milestones: Milestones: IOC	1	2014	1	2014
Test & Evaluation: Operational Evaluation: Block 1 Test/Quick Reaction Assessment (QRA)	4	2012	2	2013
Deliveries: Lot 2 Deliveries (Qty 8)	2	2012	1	2013
Deliveries: Lot 3 Deliveries (Qty 28)	2	2013	1	2014
Deliveries: Lot 4 Deliveries (Qty 21)	2	2014	1	2015

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	66.408	28.279	39.974	21.413	-	21.413	21.414	25.503	21.190	17.275	Continuing	Continuing
3159: *Naval Integrated Fire Control-Counter Air SE&I*	66.408	28.279	39.974	21.413	-	21.413	21.414	25.503	21.190	17.275	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

3159 Naval Integrated Fire Control - Counter Air (NIFC-CA) Systems Engineering Integration and Test (SEI&T) project is a systems engineering effort to extend the Naval Theater Air and Missile Defense battlespace out to the maximum kinematic range of our weapons. This includes targets beyond the detection range of the shooter, including Engage On Remote (EoR) and Over the Horizon (OTH) targets. The NIFC-CA project exploits capabilities inherent in existing systems, optimizes current and emerging technologies in component system upgrades, integrates them together, and performs kill chain tests, forming an interoperable System of Systems (SoS) to maximize future air defense capabilities. NIFC-CA consists of three kill chains called From the Air (FTA), From the Sea (FTS), and From the Land (FTL). As directed by OPNAV, the project is focused on SEI&T efforts to integrate the From The Sea (FTS) kill chain consisting of the E-2D Advanced Hawkeye, Cooperative Engagement Capability (CEC), AEGIS, and SM-6 missile. This PE will support efforts including system definition and architecture development, performance prediction, performance assessment, system test and risk reduction efforts, system analysis, modeling and simulation, and capability demonstrations for the FTS kill chain. The project also facilitates the development of the concept of operations with the warfighter to maximize effectiveness when deployed with the Fleet. This PE also includes SEI&T activities to integrate the US Army's Joint Land Attack Cruise Missile Defense Elevated Netted Sensor (JLENS) into the FTS kill chain as an elevated sensor and conduct a joint demonstration of that capability when the Navy systems are mature.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	24.898	39.974	15.821	-	15.821
Current President's Budget	28.279	39.974	21.413	-	21.413
Total Adjustments	3.381	0.000	5.592	-	5.592
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	4.000	0.000			
• SBIR/STTR Transfer	-0.619	0.000			
• Program Adjustments	0.000	0.000	5.600	-	5.600
• Rate/Misc Adjustments	0.000	0.000	-0.008	-	-0.008

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*

Change Summary Explanation

Programmatic increase in funding is for increased testing and evaluation at White Sands Missile Range.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*	PROJECT 3159: *Naval Integrated Fire Control-Counter Air SE&I*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3159: *Naval Integrated Fire Control-Counter Air SE&I*	66.408	28.279	39.974	21.413	-	21.413	21.414	25.503	21.190	17.275	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

3159 Naval Integrated Fire Control - Counter Air (NIFC-CA) Systems Engineering Integration and Test (SEI&T) project is a systems engineering effort to extend the Naval Theater Air and Missile Defense battlespace out to the maximum kinematic range of our weapons. This includes targets beyond the detection range of the shooter, including Engage On Remote (EoR) and Over the Horizon (OTH) targets. The NIFC-CA project exploits capabilities inherent in existing systems, optimizes current and emerging technologies in component system upgrades, integrates them together, and performs kill chain tests, forming an interoperable System of Systems (SoS) to maximize future air defense capabilities. NIFC-CA consists of three kill chains called From the Air (FTA), From the Sea (FTS), and From the Land (FTL). As directed by OPNAV, the project is focused on SEI&T efforts to integrate the From The Sea (FTS) kill chain consisting of the E-2D Advanced Hawkeye, Cooperative Engagement Capability (CEC), AEGIS, and SM-6 missile. This PE will support efforts including system definition and architecture development, performance prediction, performance assessment, system test and risk reduction efforts, system analysis, modeling and simulation, and capability demonstrations for the FTS kill chain. The project also facilitates the development of the concept of operations with the warfighter to maximize effectiveness when deployed with the Fleet. This PE also includes SEI&T activities to integrate the US Army's Joint Land Attack Cruise Missile Defense Elevated Netted Sensor (JLENS) into the FTS kill chain as an elevated sensor and conduct a joint demonstration of that capability when the Navy systems are mature.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Integration and Test (I&T) Integrated Product Team	21.287	30.776	16.486
Articles:	0	0	0
Description: Efforts: The Integration and Test (I&T) Integrated Product Team (IPT) develops and executes the test plan to assess the FTS operational capability, performs risk reduction testing leveraging various component system tests. Test data will be used over time to verify, validate, and accredit the FTS simulation federation.			
FY 2012 Accomplishments: Successfully completed Tracking Exercises and JLENS Demonstration live fire events at White Sands Missile Range (WSMR). Continue integration of updated Pillar program models into the NIFC-CA Federation to support pre-mission and post-mission analysis for NIFC-CA test events. Conduct verification and initial validation efforts. Provide feedback to Pillar programs on performance deltas. Continue to ensure that Measures of Effectiveness (MOEs) and Measures of Performance (MOPs) are			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*	PROJECT 3159: *Naval Integrated Fire Control-Counter Air SE&I*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
validated in test plans and interface with Pillar programs to maintain and update interface and performance specifications. Update and maintain Risk Register. ***FY 2013 Plans:*** Continue integration of updated Pillar program models into the NIFC-CA Federation to support pre-mission and post-mission analysis for NIFC-CA test events. Conduct Range Integration Testing, Tracking Exercises and Live Fire Tests at Point Mugu on CG 62 USS Chancellorsville. Conduct verification and initial validation efforts. Update and maintain Risk Register. ***FY 2014 Plans:*** Continue execution of test program, support post mission analysis, provide input and analysis of tracking exercises (TrackEx) and live fire test events (LFT) at ranges and At-Sea to further define the battlespace.			
Title: ENGINEERING MANAGMENT AND SYSTEM DEFINITION	5.992	9.198	4.927
Articles:	0	0	0
Description: Efforts: Engineering management and system definition including the development of the Systems Performance Document (SPD), SoS functional allocations, requirements, traceability, SoS trades studies, SoS information exchange requirements, interface specifications, and sensor network capability analysis. Provides for complete FTS kill chain performance analysis and interface verification through development of a federation of simulations provided directly from the FTS Programs of Record. Federated SoS simulations support architecture development, scenario development, predictive analysis for testing, and define capabilities and limitations of FTS kill chain performance analysis and interface verification through development of a federation of simulations provided directly from the FTS Programs of Record. Federated SoS simulations support architecture development, scenario development, predictive analysis for testing, and define capabilities and limitations of FTS kill chain for deployment. ***FY 2012 Accomplishments:*** Continue integration of updated Pillar program models into the NIFC-CA Federation to support pre-mission and post-mission analysis for NIFC-CA test events. Conduct verification and initial validation efforts. Provide feedback to Pillar programs on performance deltas. Continue to ensure that MOEs and MOPs are validated in test plans and interface with Pillar programs to maintain and update interface and performance specifications. Update and maintain NIFC-CA Risk Register. ***FY 2013 Plans:*** Continue integration of updated Pillar program models into the NIFC-CA Federation to support pre-mission and post-mission analysis for NIFC-CA test events. Conduct verification and initial validation efforts. Provide feedback to Pillar programs on performance deltas.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*	PROJECT 3159: *Naval Integrated Fire Control-Counter Air SE&I*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue to ensure that MOEs and MOPs are validated in test plans and interface with Pillar programs to maintain and update interface and performance specifications. Update and maintain NIFC-CA Risk Register. ***FY 2014 Plans:*** Continue integration of updated Pillar program models into the NIFC-CA Federation to support pre-mission and post-mission analysis for NIFC-CA test events. Conduct verification and initial validation efforts. Continue to ensure that MOEs and MOPs are validated in test plans and interface with Pillar programs to maintain and update interface and performance specifications. Update NIFC-CA Architecture to reflect Increment 2 requirements. Update and maintain NIFC-CA Risk Register.			
Title: SYSTEMS ENGINEERING, INTEGRATION AND TEST WITH ARMY JLENS PROGRAM ***Articles:*** ***Description:*** Efforts: Perform Systems Engineering, Integration and Test with Army JLENS program. Supports modeling and simulation and predictive analysis with JLENS as airborne sensor in the FTS kill chain. Provides for demonstration planning, execution, and data analysis. ***FY 2012 Accomplishments:*** Continue integration of updated JLENS model into the NIFC-CA Federation to support pre-mission and post-mission analysis for NIFC-CA JLENS test events. Conduct verification and validation efforts. Provide feedback to Pillar programs on performance deltas. Execute, conduct post-mission analyses, and report on the NIFC-CA JLENS TrackEx and Firing Mission.	1.000 0	0.000	0.000
Accomplishments/Planned Programs Subtotals	28.279	39.974	21.413

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• 0603658N: *CEC*	3.390	2.730	2.000		2.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• 0604366N: *Standard Missille SM-6*	38.628	39.312	48.876		48.876	62.268	9.315	3.837	3.907	Continuing	Continuing
• 0604307N: *AEGIS*	10.844	8.826	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*	PROJECT 3159: *Naval Integrated Fire Control-Counter Air SE&I*

D. Acquisition Strategy

Not Applicable

E. Performance Metrics

Test Program and analysis conducted using the NIFC-CA Federation will provide data to verify NIFC-CA performance with respect to NIFC-CA MOEs, MOPs, and requirements being tracked as NIFC-CA related in the Pillar Programs. NIFC-CA Federation, once validated using test event data, will be used to update the expected performance of NIFC-CA, as required, and provide feedback to Pillar programs.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*	PROJECT 3159: *Naval Integrated Fire Control-Counter Air SE&I*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NSWC/DD:Dahlgren, VA	3.006	0.000		0.000		0.000		-		0.000	0.000	3.006	
Systems Engineering	C/CPFF	Various:Various	5.931	4.810	Oct 2011	4.838	Oct 2012	1.698	Oct 2013	-		1.698	0.000	17.277	
Systems Engineering	C/CPFF	JHU/APL:Laurel, MD	1.165	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	1.165	
Systems Engineering	C/CPFF	NGMS:Reston, VA	1.382	0.211	Oct 2011	0.000		0.000		-		0.000	0.000	1.593	
Systems Engineering	C/CPFF	NGIS:Bethpage, NY	4.611	2.150	Oct 2011	2.129	Oct 2012	0.654	Jan 2014	-		0.654	0.000	9.544	
Systems Engineering	C/CPFF	LM MS2:Moorestown, NJ	4.415	1.962	Oct 2011	2.129	Oct 2012	0.900	Jan 2014	-		0.900	0.000	9.406	
Systems Engineering	C/CPFF	Raytheon Co.:Tucson, AZ	6.693	1.994	Oct 2011	2.150	Oct 2012	1.675	Jan 2014	-		1.675	0.000	12.512	
Systems Engineering	C/CPFF	Boeing IDS:ST. Louis, MO	1.848	0.000		0.000		0.000		-		0.000	0.000	1.848	
Systems Engineering	C/CPFF	CSCI:Springfield, VA	0.700	0.000		0.000		0.000		-		0.000	0.000	0.700	
Systems Engineering	WR	SWDG:Norfolk, VA	0.599	0.000		0.000		0.000		-		0.000	0.000	0.599	
Systems Engineering	WR	COTF:Norfolk, VA	0.774	0.005	Oct 2011	0.005	Dec 2012	0.005	Jan 2014	-		0.005	0.000	0.789	
Systems Engineering	WR	NSWC/PHD:Port Hueneme, CA	0.540	0.100	Oct 2011	0.100	Dec 2012	0.100	Jan 2014	-		0.100	0.000	0.840	
		Subtotal	31.664	11.232		11.351		5.032		0.000		5.032	0.000	59.279	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integration and Test	WR	NSWC/DD:Dahlgren, VA	1.982	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Integration and Test	C/CPFF	Raytheon Co.:Tucson, AZ	4.466	2.682	Oct 2011	3.316	Oct 2012	0.525	Jan 2014	-		0.525	Continuing	Continuing	Continuing
Integration and Test	C/CPFF	Lockheed Martin - Moorestown, NJ:Moorestown, NJ	5.197	6.061	Oct 2011	7.698	Oct 2012	1.325	Jan 2014	-		1.325	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*	PROJECT 3159: *Naval Integrated Fire Control-Counter Air SE&I*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Need Item Text	MIPR	TASC:Chantilly, VA	0.000	0.050	Jan 2012	0.050	Jan 2013	0.050	Feb 2014	-		0.050	0.000	0.150	
Integration and Test	C/CPFF	NGIS:Bethpage, NY	0.866	0.200	Oct 2011	7.698	Oct 2012	0.689	Jan 2014	-		0.689	Continuing	Continuing	Continuing
Integration and Test	Various	Various:Various	6.676	5.829	Oct 2011	7.936	Oct 2012	12.917	Oct 2013	-		12.917	Continuing	Continuing	Continuing
Integration and Test	WR	NSWC/PHD:Port Hueneme, CA	2.073	1.050	Oct 2011	1.050	Oct 2012	0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	21.260	15.872		27.748		15.506		0.000		15.506			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Planning and Management	C/CPFF	BOEING IDS:St. Louis, MO	0.750	0.000		0.000		0.000		-		0.000	0.000	0.750	
Project Planning and Management	C/CPFF	Raytheon Co.:Tucson, AZ	1.776	0.000		0.000		0.000		-		0.000	0.000	1.776	
Project Planning and Management	C/CPFF	LM MS2:Moorestown, NJ	1.485	0.000		0.000		0.000		-		0.000	0.000	1.485	
Project Planning and Management	C/CPFF	NGIS:Bethpage, NY	1.681	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Project Planning and Management	WR	NSWC/DD:Dahlgren, VA	1.266	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Project Planning and Management	C/CPAF	MEI:Arlington, VA	2.331	0.300	Dec 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Project Planning and Management	C/CPFF	Various:Various	4.195	0.875	Oct 2011	0.875	Oct 2012	0.875	Oct 2013	-		0.875	Continuing	Continuing	Continuing
		Subtotal	13.484	1.175		0.875		0.875		0.000		0.875			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	66.408	28.279		39.974		21.413		0.000		21.413			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*	PROJECT 3159: *Naval Integrated Fire Control-Counter Air SE&I*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*	PROJECT 3159: *Naval Integrated Fire Control-Counter Air SE&I*

NIFC-CA
Planning Schedule

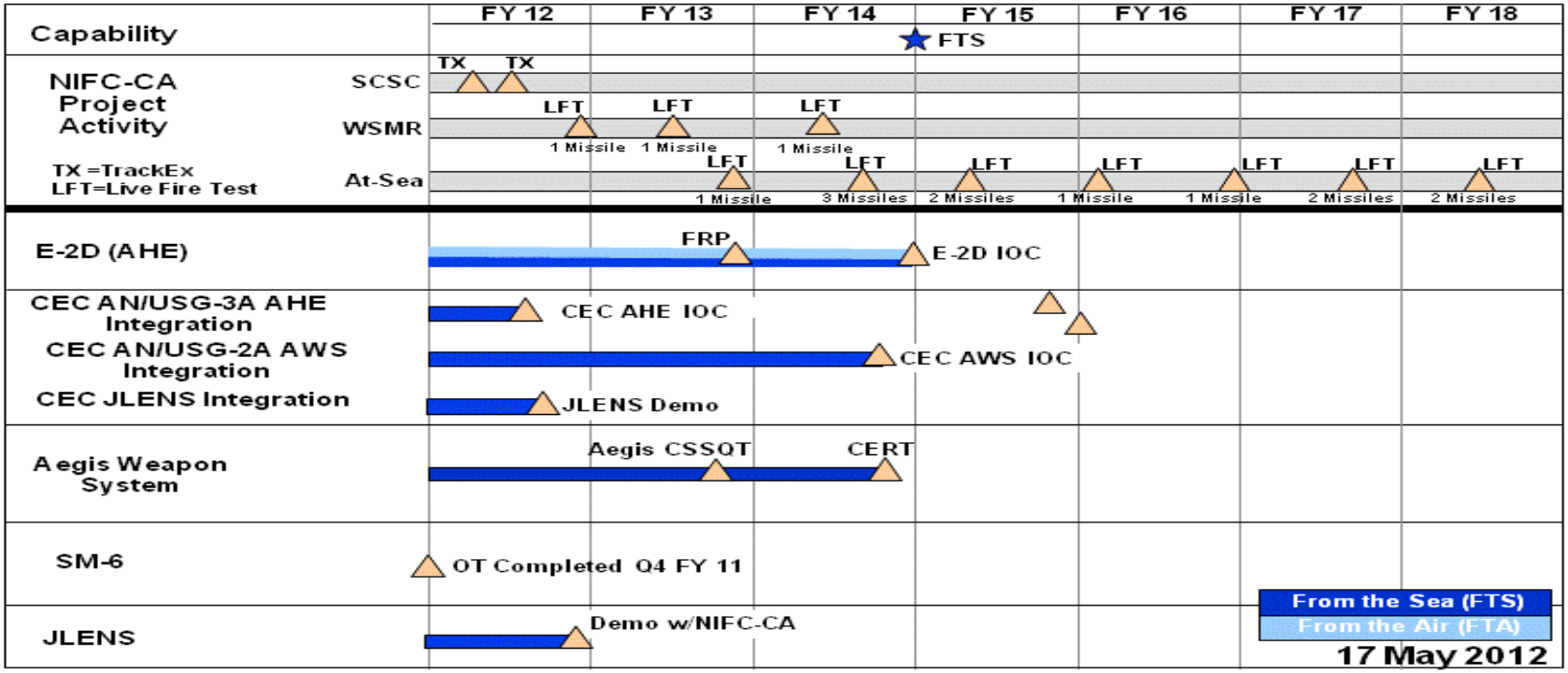


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604378N: *Nav Integrated Fire Control-Counter Air Sys Eng*	**PROJECT** 3159: *Naval Integrated Fire Control-Counter Air SE&I*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3159				
FROM THE SEA (FTS) CAPABILITY	4	2014	4	2014
SCSC TX1	2	2012	2	2012
SCSC TX2	3	2012	3	2012
WSMR JLENS LFT1	4	2012	4	2012
WSMR LFT1	2	2013	2	2013
WSMR LFT2	2	2014	2	2014
AT SEA EVENT 1	4	2013	4	2013
AT SEA EVENT 2	3	2014	3	2014
AT SEA EVENT 3	2	2015	2	2015
AT SEA EVENT 4	1	2016	1	2016
AT SEA EVENT 5	4	2016	4	2016
AT SEA EVENT 6	3	2017	3	2017
AT SEA EVENT 7	2	2018	2	2018
E-2D AHE FRP	4	2013	4	2013
E-2D IOC	4	2014	4	2014
CEC AHE IOC	3	2012	3	2012
CEC AWS IOC	4	2014	4	2014
CEC JLENS DEMO	3	2012	3	2012
AEGIS CSSQT	3	2013	3	2013
AEGIS WEAPON SYSTEM CERT	4	2014	4	2014
JLENS DEMO WITH NIFC-CA	4	2012	4	2012

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	0.000	71.182	122.481	146.683	-	146.683	522.497	652.344	622.527	619.412	Continuing	Continuing
3278: *UCLASS Development*	0.000	71.182	122.481	146.683	-	146.683	522.497	652.344	622.527	619.412	Continuing	Continuing

MDAP/MAIS Code(s): P462

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS) system will enhance carrier capability and versatility for the Joint Forces Commander through integration of a persistent and mission flexible unmanned aircraft into the Carrier Air Wing. The UCLASS Initial Capabilities Document (ICD) highlights the need for a persistent, survivable carrier-based Intelligence, Surveillance, and Reconnaissance (ISR) and precision strike asset. The UCLASS ICD was approved by the Joint Requirements Oversight Council (JROC) in April 2011. The JROC approved the UCLASS ICD on 9 Jun 11 via JROCM 087-11. JROCMs 086-12 and 196-12 affirmed the urgency for an affordable, adaptable platform that supports missions ranging from permissive counter-terrorism operations, to missions in low-end contested environments, to providing enabling capabilities for high-end denied operations, as well as supporting organic Naval missions.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	75.700	122.481	144.134	-	144.134
Current President's Budget	71.182	122.481	146.683	-	146.683
Total Adjustments	-4.518	0.000	2.549	-	2.549
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-3.013	0.000			
• SBIR/STTR Transfer	-1.505	0.000			
• Program Adjustments	0.000	0.000	-144.134	-	-144.134
• Rate/Misc Adjustments	0.000	0.000	146.683	-	146.683

Change Summary Explanation

Schedule: As a result of adjustments to the program's acquisition strategy, the program's plan was adjusted, moving Milestone-A and contract award.

Technical: Not Applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*	PROJECT 3278: *UCLASS Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3278: *UCLASS Development*	0.000	71.182	122.481	146.683	-	146.683	522.497	652.344	622.527	619.412	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS) system will enhance carrier capability and versatility for the Joint Forces Commander through integration of a persistent and mission flexible unmanned aircraft into the Carrier Air Wing (CVW). The UCLASS Initial Capabilities Document (ICD) highlights the need for a persistent, survivable carrier-based Intelligence, Surveillance, and Reconnaissance (ISR) and precision strike asset. The UCLASS ICD was approved by the Joint Requirements Oversight Council (JROC) in April 2011. The JROC approved the UCLASS ICD on 9 Jun 11 via JROCM 087-11. JROCMs 086-12 and 196-12 affirmed the urgency for an affordable, adaptable platform that supports missions ranging from permissive counter-terrorism operations, to missions in low-end contested environments, to providing enabling capabilities for high-end denied operations, as well as supporting organic Naval missions.

The UCLASS system will provide persistent ISR with precision strike support in a range of missions including irregular warfare and major combatant operation environments. UCLASS will be a major step forward in achieving integration of manned and unmanned systems within the CVW and will contribute to increasing sea-based capacity across the spectrum of maritime and littoral missions. UCLASS will allow a CVW to provide continuous 24/7 ISR/strike capability. The UCLASS system will be sustainable onboard an aircraft carrier, as well as ashore, and will be designed to minimize increases in the logistics footprint of the current CVW.

The UCLASS system will have the ability to pass command and control information along with sensor data to other aircraft, naval vessels, and ground forces. Sensor data will be transmitted, in either raw or processed forms, at appropriate classification levels, to exploitation nodes afloat and ashore (e.g. Distributed Common Ground/Surface System - Navy).

The UCLASS system will achieve these capabilities through the use of a carrier-suitable, semi-autonomous, unmanned Air Segment; a Control System and Connectivity Segment and; a Carrier Segment. The UCLASS system will interface with existing ship and land-based command and control systems, including ISR Tasking, Processing, Exploitation, and Dissemination systems.

The scope of the program includes, but is not limited to, system level requirements identification, allocation of requirements to segments and components, design, development, integration, fabrication, test, training, and support activities to provide the UCLASS capabilities. To accomplish these capabilities the UCLASS program will (as required) transition technologies from other programs and adapt them into the carrier environment. The UCLASS system will deliver the necessary air vehicles, command, control, connectivity, shipboard and land-based launch and recovery control systems, associated support systems, interfaces, and upgrades to other Navy systems (as required) to meet the required capabilities.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*	**PROJECT** 3278: *UCLASS Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Product Development	59.256	101.921	125.712
Articles:	0	0	0
Description: Product Development efforts include, but are not limited to, science and technology investments, design, development, integration, fabrication, test, and training for all Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS) capabilities across system segments. ***FY 2012 Accomplishments:*** Initiated design and development of the UCLASS System. Provided government oversight of all UCLASS contract activities. Initiated Control System and Connectivity (CS&C) Segment interface and integration activities. Initiated CVN Segment interface and integration activities. ***FY 2013 Plans:*** Continue UCLASS system cross-segment design trades and industry analyses, and efforts to implement an open system architecture across all UCLASS segments. Initiate Air Segment design and integration activities. Continue CS&C hardware/software development. Deliver CS&C software development tools and documentation for design and integration activities. Establish Air Segment, CS&C Segment, and Carrier Segment interfaces, while establishing landing system and data link interfaces. Complete technology maturation assessments and transitions, and mature, as required, technologies into the UCLASS system. Develop ship change requests and Engineering Change Proposals (ECP) documentation in accordance with Naval Sea Systems Command (NAVSEA), Space and Naval Warfare Systems Command (SPAWAR), and Program Executive Office, Aircraft Carriers (PEO(CARRIERS)) processes. Execute UCLASS ship integration activities with NAVSEA, SPAWAR, and PEO(CARRIERS). Complete shipboard network ECP planning. Establish system integration laboratories in support of government-led open system architecture and program activities. ***FY 2014 Plans:*** Continue UCLASS efforts to implement an open system architecture across all UCLASS segments. Continue Air Segment design and integration activities. Continue CS&C hardware/software development. Deliver CS&C software development tools and documentation for design and integration activities. Continue Air Segment, CS&C Segment, and Carrier Segment interface activities, to include integrating landing system and data links. Begin implementation of ship change requests and Engineering Change Proposals (ECP), and ship integration activities in accordance with Naval Sea Systems Command (NAVSEA), Space and Naval Warfare Systems Command (SPAWAR), and Program Executive Office, Aircraft Carriers (PEO(CARRIERS)) processes. Continue stand up of system integration laboratories and test facilities in support of government-led program activities, including implementation of open system architectures.			
Title: Management	11.926	18.360	18.727
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*	PROJECT 3278: *UCLASS Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Description: Efforts include program, engineering, test, and logistics management. ***FY 2012 Accomplishments:*** Conducted milestone preparation activities. Oversaw UCLASS System interface and integration activities. Initiated logistics management tasks including facilities, training, and manpower. Established and maintained security and program office environments. ***FY 2013 Plans:*** Oversee, coordinate, and manage UCLASS acquisition, system interface and integration activities. Continue logistics management tasks, including facilities, training, and manpower. Maintain security and program office environments. Conduct UCLASS system engineering reviews. Provide oversight of UCLASS contract activities. Develop requests for proposals and conduct source selections, as necessary, to support UCLASS program activities. Oversee award of Air Segment contracts. ***FY 2014 Plans:*** Continue oversight, coordination, and management of UCLASS acquisition, system interface and integration activities. Provide oversight of UCLASS contract activities. Continue logistics management tasks. Continue to maintain security and program office environments.			
Title: Test and Evaluation ***Articles:*** ***FY 2013 Plans:*** Initiate test plan for surrogates. Establish requirements for test facilities and ranges. Support engineering events and program management activities. ***FY 2014 Plans:*** Continue test plans for surrogates, refine test facility, range and lab test requirements and support engineering events and program management activities.	0.000 0	2.200 0	2.244 0
Accomplishments/Planned Programs Subtotals	71.182	122.481	146.683

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*	PROJECT 3278: *UCLASS Development*

D. Acquisition Strategy

The Government will act as the system integrator across all Unmanned Carrier-Launched Airborne Surveillance and Strike Segments. The Government will develop and award contracts as required to support program activities, including sole source Firm Fixed Price contracts to mature designs to the Program Design Review level of maturity, followed by a down-select to one prime contractor. The Government's acquisition strategy will be approved by Milestone-A. Acquisition and contracting strategies comply with current statutes, regulations, and instructions.

E. Performance Metrics

Meet Navy operational requirements as defined in requirements documents.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*	PROJECT 3278: *UCLASS Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development (Risk Reduction)	Various	Various:Various	0.000	2.244	Aug 2012	17.288	May 2013	0.000		-		0.000	0.000	19.532	19.532
Primary Hardware Development (L/R Datalink)	Various	Various:Various	0.000	25.080	Jul 2012	0.000		0.000		-		0.000	0.000	25.080	25.080
Primary Hardware Development (Air Segment)	SS/FFP	TBD1:TBD	0.000	0.000		3.750	Aug 2013	12.517	Dec 2013	-		12.517	Continuing	Continuing	Continuing
Primary Hardware Development (Air Segment)	SS/FFP	TBD2:TBD	0.000	0.000		3.750	Aug 2013	12.517	Dec 2013	-		12.517	Continuing	Continuing	Continuing
Primary Hardware Development (Air Segment)	SS/FFP	TBD3:TBD	0.000	0.000		3.750	Aug 2013	12.517	Dec 2013	-		12.517	Continuing	Continuing	Continuing
Primary Hardware Development (Air Segment)	SS/FFP	TBD4:TBD	0.000	0.000		3.750	Aug 2013	12.517	Dec 2013	-		12.517	Continuing	Continuing	Continuing
Systems Engineering	Various	Various:Various	0.000	0.239	Feb 2012	5.011	Dec 2012	5.141	Dec 2013	-		5.141	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWCAD:Patuxent River, MD	0.000	4.524	Jan 2012	6.989	Dec 2012	7.099	Dec 2013	-		7.099	Continuing	Continuing	Continuing
CS&C Segment	WR	NAWCAD:Patuxent River, MD	0.000	4.766	Jan 2012	11.556	Dec 2012	11.792	Dec 2013	-		11.792	Continuing	Continuing	Continuing
CS&C Segment	Various	Various:Various	0.000	2.155	Feb 2012	5.180	Dec 2012	5.286	Dec 2013	-		5.286	Continuing	Continuing	Continuing
CS&C Segment	Various	NSMA:Arlington, VA	0.000	4.726	Apr 2012	11.158	Dec 2012	11.386	Dec 2013	-		11.386	Continuing	Continuing	Continuing
CS&C Segment	WR	NAWCWD:China Lake, CA	0.000	4.994	Feb 2012	11.958	Dec 2012	12.202	Dec 2013	-		12.202	Continuing	Continuing	Continuing
Carrier Segment (Landing System)	Various	Various:Various	0.000	0.000		3.083	Dec 2012	5.952	Dec 2013	-		5.952	Continuing	Continuing	Continuing
Carrier Segment (Ship Integration)	Various	Various:Various	0.000	2.750	Feb 2012	4.409	Dec 2012	5.056	Dec 2013	-		5.056	Continuing	Continuing	Continuing
Carrier Segment (Ship Integration)	WR	NAWCAD:Patuxent River, MD	0.000	7.778	Jan 2012	10.289	Dec 2012	11.730	Dec 2013	-		11.730	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*	PROJECT 3278: *UCLASS Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	0.000	59.256		101.921		125.712		0.000		125.712			

Remarks

Launch and Recovery Datalink (L/R Datalink)
Control System and Connectivity (CS&C) Segment
Navy Systems Management Activity (NSMA)

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	Various	Various:Various	0.000	0.000		2.200	Dec 2012	2.244	Dec 2013	-		2.244	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		2.200		2.244		0.000		2.244			

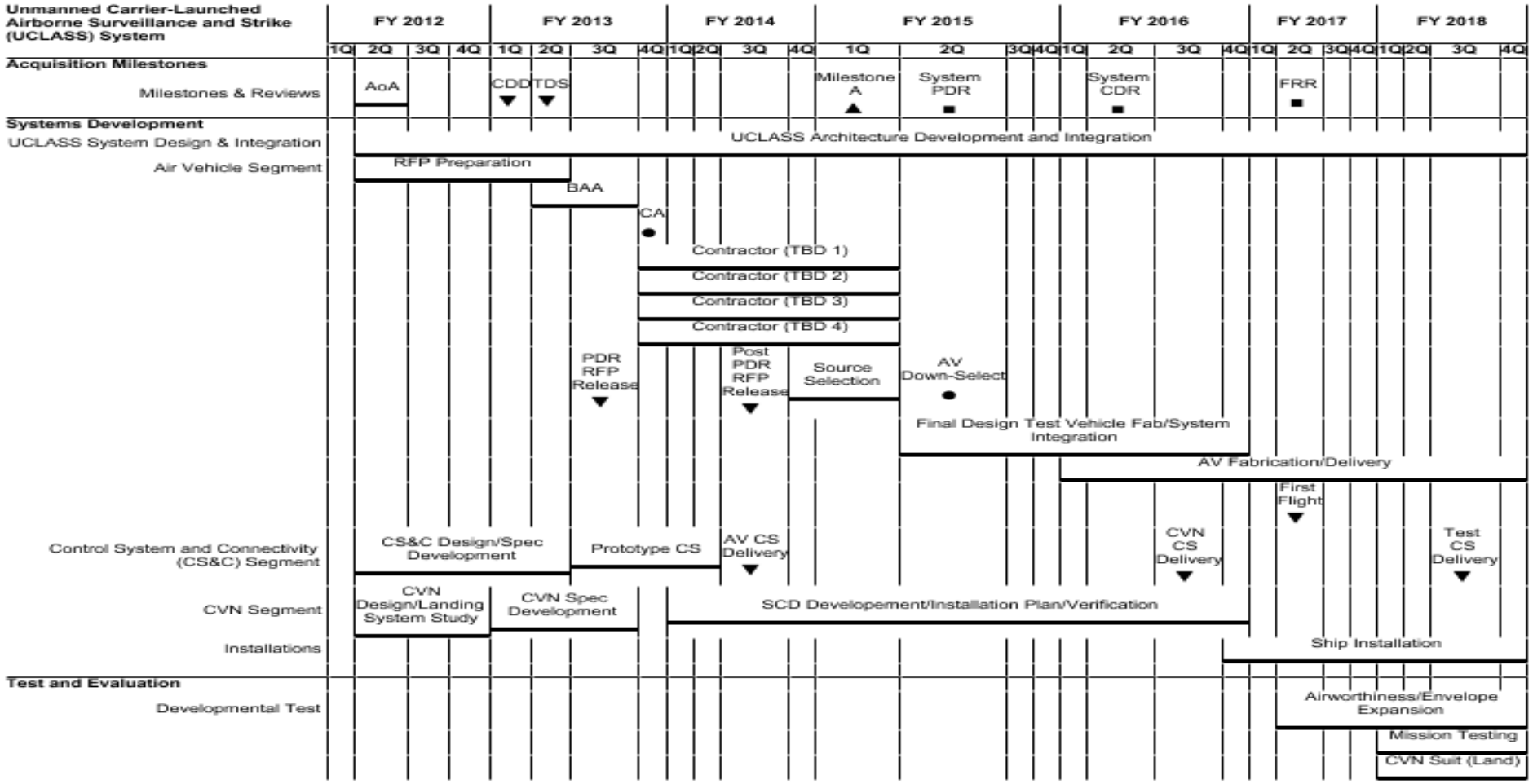
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management	Various	Various:Various	0.000	1.345	Feb 2012	1.836	Dec 2012	1.872	Dec 2013	-		1.872	Continuing	Continuing	Continuing
Management	WR	NAWCAD:Patuxent River, MD	0.000	6.000	Feb 2012	8.629	Dec 2012	8.802	Dec 2013	-		8.802	Continuing	Continuing	Continuing
Management	Various	NSMA:Arlington, VA	0.000	1.887	Feb 2012	5.508	Dec 2012	5.618	Dec 2013	-		5.618	Continuing	Continuing	Continuing
Management	WR	NAWCWD:China Lake, CA	0.000	2.694	Feb 2012	2.387	Dec 2012	2.435	Dec 2013	-		2.435	Continuing	Continuing	Continuing
		Subtotal	0.000	11.926		18.360		18.727		0.000		18.727			

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	71.182		122.481		146.683		0.000		146.683			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604404N: *(U)Unman Carrier Launch A/ B Surv & Strk(UCLASS)Sys*	PROJECT 3278: *UCLASS Development*



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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*	PROJECT 3278: *UCLASS Development*

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*	**PROJECT** 3278: *UCLASS Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS) System				
Acquisition Milestones: Milestones & Reviews: Milestone A	1	2015	1	2015
Acquisition Milestones: Milestones & Reviews: UCLASS Analysis of Alternatives (AoA)	2	2012	2	2012
Acquisition Milestones: Milestones & Reviews: System Program Design Review (PDR)	2	2015	2	2015
Acquisition Milestones: Milestones & Reviews: System Concept Design Review (CDR)	2	2016	2	2016
Acquisition Milestones: Milestones & Reviews: Flight Readiness Review (FRR)	2	2017	2	2017
Acquisition Milestones: Milestones & Reviews: Capability Development Document (CDD)	1	2013	1	2013
Acquisition Milestones: Milestones & Reviews: Technology Development Strategy (TDS)	2	2013	2	2013
Systems Development: UCLASS System Design & Integration: UCLASS Architecture Development and Integration	2	2012	4	2018
Systems Development: Air Vehicle Segment: PDR Request For Proposal (RFP) Preparation	2	2012	2	2013
Systems Development: Air Vehicle Segment: Broad Agency Annoucement (BAA)	2	2013	3	2013
Systems Development: Air Vehicle Contract Award	4	2013	4	2013
Systems Development: Contractor (TBD 1)	4	2013	1	2015
Systems Development: Contractor (TBD 2)	4	2013	1	2015
Systems Development: Contractor (TBD 3)	4	2013	1	2015
Systems Development: Contractor (TBD 4)	4	2013	1	2015
Systems Development: Source Selection Activities	4	2014	1	2015
Systems Development: PDR RFP Air Segment Contract Award	3	2013	3	2013
Systems Development: Post-PDR RFP Release for Air Segment Contract Award	3	2014	3	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604404N: *(U)Unman Carrier Launch A/B Surv & Strk(UCLASS)Sys*	PROJECT 3278: *UCLASS Development*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Systems Development: Air Vehicle (AV) Contractor Down-Select	2	2015	2	2015
Systems Development: Final Design Test Vehicle Fab/System Integration	2	2015	4	2016
Systems Development: Air Vehicle (AV) Fabrication & Delivery	1	2016	4	2018
Systems Development: First Flight	2	2017	2	2017
Systems Development: Control System and Connectivity (CS&C) Segment: CS&C Segment Design/Spec Development	2	2012	2	2013
Systems Development: Control System and Connectivity (CS&C) Segment: Prototype Control Station (CS)	3	2013	2	2014
Systems Development: Control System and Connectivity (CS&C) Segment: AV CS Delivery	3	2014	3	2014
Systems Development: Control System and Connectivity (CS&C) Segment: Land/ Carrier Vessel Nuclear (CVN) CS Delivery	3	2016	3	2016
Systems Development: Control System and Connectivity (CS&C) Segment: EOC CS Delivery	3	2018	3	2018
Systems Development: CVN Segment: CVN Segment Design/Landing System Study	2	2012	4	2012
Systems Development: CVN Segment: CVN Spec Development	1	2013	3	2013
Systems Development: CVN Segment: Ship Change Document (SCD) Developement/ Installation Plan/Verification	1	2014	4	2016
Systems Development: Installations: Ship Installation	4	2016	4	2018
Test and Evaluation: Developmental Test: Airworthiness/Envelope Expansion	2	2017	4	2018
Test and Evaluation: Developmental Test: Mission Testing	1	2018	4	2018
Test and Evaluation: Developmental Test: CVN Suit (Land)	1	2018	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	703.233	239.122	255.516	275.871	-	275.871	236.157	260.802	97.857	94.420	Continuing	Continuing
3186: *Air and Missile Defense Radar*	547.023	148.612	223.621	240.132	-	240.132	205.085	235.124	73.351	69.541	Continuing	Continuing
3187: *Periscope Detection*	33.704	21.711	1.730	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	57.145
3188: *Dual-Band Radar*	34.151	21.008	12.042	18.893	-	18.893	14.281	8.434	6.997	7.102	Continuing	Continuing
3232: *Multi-Mission Signal Processor*	84.874	23.282	14.617	14.795	-	14.795	15.856	16.290	16.545	16.797	Continuing	Continuing
3301: *Improved Capabilities SPY-1 Radar*	3.481	4.509	3.506	2.051	-	2.051	0.935	0.954	0.964	0.980	Continuing	Continuing
9999: *Congressional Adds*	0.000	20.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	20.000
MDAP/MAIS Code(s): P384												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Air and Missile Defense Radar (AMDR): The AMDR suite is being developed to fulfill Integrated Air and Missile Defense requirements for multiple ship classes. This suite consists of an S-Band radar (AMDR-S), an X-band radar and a Radar Suite Controller (RSC). Funding in FY 13-18 will develop AMDR-S and RSC, and integrate these components with an available X band radar. AMDR will provide multi-mission capabilities, simultaneously supporting both long range, exoatmospheric detection, tracking and discrimination of ballistic missiles, as well as Area and Self Defense against air and surface threats. For the Ballistic Missile Defense capability, increased radar sensitivity and bandwidth over current radar systems are needed to detect, track and support engagements of advanced ballistic missile threats at the required ranges, concurrent with Area and Self Defense against Air and Surface threats. For the Area Air Defense and Self Defense capability, increased sensitivity and clutter capability is needed to detect, react to, and engage stressing Very Low Observable/Very Low Flyer (VLO/VLF) threats in the presence of heavy land, sea, and rain clutter. This effort provides for the development of an active phased array radar with the required capabilities to address the evolving threat. The AMDR suite will obtain performance and technology enhancements throughout its service life based upon an approach that includes modularity of hardware and software, a scalable design and Open Architecture (OA) compliance.

Periscope Detection: The CVN Periscope Detection Radar program, AN/SPS-74(V), develops and delivers the capability which provides automated detection and discrimination of submarine periscopes using advanced algorithms. This enables discrimination of periscopes from surface contacts, buoys, small boats, floating mines, etc. This effort was initially based on an Advanced Development Model (ADM), developed in PE 0603553N, Surface Antisubmarine Warfare. VCNO

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*

Memorandum Ser N09/12U100544 dtd 17 Dec, 2012 directs cancellation of the AN/SPS-74 Program. FY12 and FY13 funding will develop the Periscope Detection and Discrimination (PDD) interface for the AN/SPQ-9B Radar.

Dual Band Radar (DBR) Upgrades: Funding is for Dual Band Radar (DBR) System upgrades to implement cost savings initiatives for Volume Search Radar (VSR) modifications, supportability analysis and associated logistics product updates; future upgrades/technology insertion efforts for Multi-Function Radar (MFR)/VSR as a part of the DBR suite on CVN 78 Class ships and the MFR on DDG 1000 Class ships. Funding is also required to resolve the hardware and software issues discovered during the various test events to include: DTB2-411, SDTS testing, Land Based Testing and pertinent At-Sea test events. The upgrades will include all aspects of the radar system/subsystems, including hardware and software. Specific subsystem areas include the Array, Transmit/Receive (T/R) module, Receiver/ Exciter, Signal Data Processor, Radome, and power/cooling systems. Upgrades and technology insertions are required to maintain the level of force protection needed for ship defense against all threats envisioned in the littoral environment. The supportability analysis and logistic products associated with these upgrades will also be developed and updated. DBR Battle Force Tactical Trainer (BFTT)/Cooperative Engagement Capability (CEC)/Surface Electronic Warfare Improvement Program (SEWIP) Interface: FY12-14 requirement supports the design and development of the software interface between DBR and AN/USQ-46 BFTT, CEC and SEWIP to enhance CVN 78 combat readiness. The contract award is planned for FY12 and continues with validation testing in FY14. DBR CVN 78 Testing and Certification: FY12-FY17 requirement supports DBR At-Sea Test and Evaluation (T&E), Environmental Testing and DBR Systems Certification for CVN 78.

Multi-Mission Signal Processor (MMSP): The development of Multi-Mission Signal Processor (MMSP) provides Anti-Air Warfare (AAW)/Ballistic Missile Defense (BMD) Multi-mission capability for DDG 51 class ships as part of Aegis Modernization Program. This capability will be utilized for DDG 113 and follow new construction and Aegis Ashore. Modifies SPY-1D Transmitters to enable dual beam for reduced frame times and better reaction time, and provides stability for all D (V) waveforms and avoid operational degradation. The SPY-1 radar system detects, tracks and supports engagements of a broader range of threats. MMSP improves performance in littoral, ducted clutter environments, and in electronic attack (EA), and chaff environments and provides greater commonality in computer programs and equipment. This effort also provides for the development of a Solid State Switch Assembly (SSSA) through an ONR/MANTECH project, MMSP Commercial Off-The-Shelf (COTS) refresh, radar capability upgrades, reliability improvements, and ship-based Non-Cooperative Target Recognition (NCTR).

Improved Capabilities for SPY-1 Radar: These Reliability, Maintainability, and Availability (RM&A) improvements are intended to reduce cascading failures, mitigate obsolescence issues, and improve reliability in support of Anti-Air Warfare (AAW) and Ballistic Missile Defense (BMD) missions; while still providing AN/SPY-1 Radar Total Ownership Cost Reductions. Improvements will yield reductions in annual fleet maintenance costs.

Advanced Radar Innovation Fund: Funds the development and integration of existing and new technologies into the Navy's sensors to enhance performance and ensure sensor operations and sustainment throughout the lifecycle of the sensor and platforms on which installed.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	247.071	255.516	388.654	-	388.654
Current President's Budget	239.122	255.516	275.871	-	275.871
Total Adjustments	-7.949	0.000	-112.783	-	-112.783
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-2.535	0.000			
• SBIR/STTR Transfer	-5.414	0.000			
• Program Adjustments	0.000	0.000	-109.236	-	-109.236
• Rate/Misc Adjustments	0.000	0.000	-3.547	-	-3.547

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Project: 9999: *Congressional Adds*		
Congressional Add: *Adv Radar Innovation Fund - Surf (Cong)*	20.000	-
Congressional Add Subtotals for Project: 9999	20.000	0.000
Congressional Add Totals for all Projects	20.000	0.000

Change Summary Explanation

Technical: Removed AMDR X-Band Radar E&MD effort
Schedule: Not Applicable
Cost: Removed AMDR X-Band Radar E&MD effort

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3186: *Air and Missile Defense Radar*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3186: *Air and Missile Defense Radar*	547.023	148.612	223.621	240.132	-	240.132	205.085	235.124	73.351	69.541	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Air and Missile Defense Radar (AMDR): The AMDR suite is being developed to fulfill Integrated Air and Missile Defense requirements for multiple ship classes. This suite consists of an S-Band radar (AMDR-S), an X-band radar and a Radar Suite Controller (RSC). Funding in FY 13-18 will develop AMDR-S and RSC, and integrate these components with an available X band radar. AMDR will provide multi-mission capabilities, simultaneously supporting both long range, exoatmospheric detection, tracking and discrimination of ballistic missiles, as well as Area and Self Defense against air and surface threats. For the Ballistic Missile Defense (BMD) capability, increased radar sensitivity and bandwidth over current radar systems are needed to detect, track and support engagements of advanced ballistic missile threats at the required ranges, concurrent with Area and Self Defense against Air and Surface threats. For the Area Air Defense and Self Defense capability, increased sensitivity and clutter capability is needed to detect, react to, and engage stressing Very Low Observable /Very Low Flyer (VLO/VLF) threats in the presence of heavy land, sea, and rain clutter. This effort provides for the development of an active phased array radar with the required capabilities to address the evolving threat. The AMDR suite will obtain performance and technology enhancements throughout its service life based upon an approach that includes modularity of hardware and software, a scalable design and Open Architecture (OA) compliance.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: R&D/RISK REDUCTION	2.929	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: - Evaluated Gallium Nitride (GaN) High Power Amplifier (HPA) performance, reliability, and producibility improvements - Performed risk reduction activities associated with digital beamforming, array architectures, Transmit/Receive (T/R) modules, thermal management, and Radio Frequency (RF) semiconductors - Conducted critical component and subsystem demonstrations, integration and testing			
Title: SYSTEMS ENGINEERING	140.821	218.616	235.961
Articles:	0	0	0
FY 2012 Accomplishments: - Conducted Preliminary Design Reviews with each TD contractor - Conducted the technology development component and prototype testing			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3186: *Air and Missile Defense Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Analyzed and reviewed prototype test results - Conducted Technology Readiness Level assessments - Completed Technology Development Phase contracts ***FY 2013 Plans:*** - Achieve successful Milestone B decision and proceed into EMD phase - Award AMDR-S/RSC EMD contract - Mature AMDR design and radar parameters necessary for ship integration - Support EMD Phase Integrated Baseline Review ***FY 2014 Plans:*** - Conduct Delta Hardware and Software Preliminary Design Reviews - Conduct Hardware and Software Critical Design Reviews - Conduct test planning in support of system verification - Develop modeling and simulation tools - Conduct performance analysis in support of system design			
Title: PROGRAM MANAGEMENT SUPPORT	4.862	5.005	4.171
Articles:	0	0	0
FY 2012 Accomplishments: - Provided support to Integrated Product Teams (IPTs) and WGs required for program execution and achievement of Milestone 'B' in FY13 - Assisted in cost, schedule and performance management, contract administration and oversight, risk identification and mitigation - Analyzed and assessed contractor studies - Reviewed available/proposed technical alternatives ***FY 2013 Plans:*** - Achieve successful Milestone B decision and proceed into EMD phase - Provide support to Integrated Product Teams (IPTs) and WGs required for program execution of the EMD contracts - Assist in cost, schedule and performance management, contract administration and oversight, earned value assessment, risk identification and mitigation - Analyze and assess contractor studies - Review available/proposed technical alternatives - Conduct EMD Phase Integrated Baseline Review ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3186: *Air and Missile Defense Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Provide support to Integrated Product Teams (IPTs) and WGs required for program execution of the EMD contracts - Analyze and assess contractor deliverables - Conduct regular Program Management Reviews - Assist in cost, schedule and performance management, contract administration and oversight, earned value assessment, risk identification and mitigation			
Accomplishments/Planned Programs Subtotals	148.612	223.621	240.132

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

AMDR: Plans for the Air and Missile Defense Radar are to leverage research and development investments, integrate sufficiently matured fundamental advanced technologies from technology risk reduction efforts, and incorporate Open Architecture approaches to develop a scalable radar design with major improvements in power, sensitivity, resistance to natural and man-made environments over current radar systems for simultaneous multi-mission BMD, Area and Self Defense Anti-Air Warfare (AAW). System design will be accomplished by employing proven technologies and commercial standards to lower schedule risk and develop a product with the lowest life-cycle cost.

Program scope consists of the following phases: a Concept Studies phase; a Technology Development phase which includes competitive prototyping; an EMD phase which includes completion of a full Engineering Development Model (EDM) for land-based testing; and transition to production. The detailed scope of this acquisition is defined in the approved Technology Development Strategy (TDS) and will be updated for Milestone B in the AMDR Acquisition Strategy.

E. Performance Metrics

- Complete Technology Development (TD) phase System Requirements Review, Test Readiness Review, TD Prototype testing, TD System Functional Review, and TD Preliminary Design Review (PDR)
- Achieve Milestone B decision to proceed into EMD phase
- Award/Exercise EMD contracts
- Conduct Delta Hardware / Software PDRs and Hardware / Software Critical Design Reviews (CDRs)
- Complete Engineering Development Model (EDM) Testing
- Achieve Milestone C decision to proceed into production

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3186: *Air and Missile Defense Radar*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Risk Reduction	WR	SCSC Wallops:Wallops Island, VA	10.530	0.000		0.000		0.000		-		0.000	0.000	10.530	
Risk Reduction	MIPR	DMEA:McClellen AFB, CA	48.022	0.000		0.000		0.000		-		0.000	0.000	48.022	
Risk Reduction	SS/CPFF	JHU/APL:Baltimore, MD	9.820	0.100	Jan 2012	0.000		0.000		-		0.000	0.000	9.920	
Risk Reduction	MIPR	MIT:Cambridge, MA	2.538	0.000		0.000		0.000		-		0.000	0.000	2.538	
Risk Reduction	WR	NRL:Washington, DC	7.178	0.916	Nov 2011	0.000		0.000		-		0.000	0.000	8.094	
Risk Reduction	C/CPAF	BAE Systems:Rockville, MD	1.980	0.000		0.000		0.000		-		0.000	0.000	1.980	
Risk Reduction	WR	NSWC/CR:Crane, IN	0.000	0.746	Dec 2011	0.000		0.000		-		0.000	0.000	0.746	
Risk Reduction	C/CPFF	SPA-PSS:Alexandria, VA	3.048	0.769	Jan 2012	0.000		0.000		-		0.000	0.000	3.817	
Risk Reduction	WR	NSWC/DD:Dahlgren, VA	6.439	0.000		0.000		0.000		-		0.000	0.000	6.439	
Risk Reduction	MIPR	DARPA:Adelphi, MD	5.484	0.398	Jan 2012	0.000		0.000		-		0.000	0.000	5.882	
Systems Engineering	SS/CPFF	GTRI:Atlanta, GA	5.019	1.722	Jan 2012	0.000		1.713	Dec 2013	-		1.713	Continuing	Continuing	Continuing
Systems Engineering	SS/FFP	BAE Systems:Rockville, MD	9.536	0.000		0.000		0.000		-		0.000	0.000	9.536	
Systems Engineering	Various	VARIOUS-SPECIAL:Special	3.078	0.000		0.000		0.000		-		0.000	0.000	3.078	
Systems Engineering	WR	NSWC/DD:Dahlgren, VA	38.303	12.575	Nov 2011	7.148	Dec 2012	12.935	Dec 2013	-		12.935	Continuing	Continuing	Continuing
Systems Engineering	WR	PMRF:Kekaha, HI	1.375	0.682	Dec 2011	3.989	Dec 2012	10.763	Dec 2013	-		10.763	Continuing	Continuing	Continuing
Systems Engineering	SS/CPFF	JHU/APL:Baltimore, MD	38.725	13.901	Jan 2012	8.697	Feb 2013	13.168	Dec 2013	-		13.168	Continuing	Continuing	Continuing
Systems Engineering	MIPR	MIT:Cambridge, MA	10.445	4.639	Nov 2011	3.536	Dec 2012	4.077	Dec 2013	-		4.077	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3186: *Air and Missile Defense Radar*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NSWC/PHD:Port Hueneme, CA	6.069	3.389	Nov 2011	6.057	May 2013	4.080	Dec 2013	-		4.080	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC/CR:Crane, IN	2.449	0.466	Dec 2011	4.145	Jan 2013	2.791	Dec 2013	-		2.791	Continuing	Continuing	Continuing
Systems Engineering	WR	NRL:Washington, DC	3.721	0.783	Nov 2011	2.849	Jan 2013	1.919	Dec 2013	-		1.919	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	SPA-PSS:Alexandria, VA	9.433	7.911	Jan 2012	2.147	Apr 2013	5.705	Dec 2013	-		5.705	Continuing	Continuing	Continuing
Systems Engineering	WR	COMPTEVFOR:Norfolk, VA	0.446	0.331	Jan 2012	0.337	May 2013	0.227	Dec 2013	-		0.227	Continuing	Continuing	Continuing
Systems Engineering	C/FFP	CS-Northrop Grumman:Linthicum Heights, MD	10.000	0.000		0.000		0.000		-		0.000	0.000	10.000	
Systems Engineering	C/FFP	CS-Lockheed Martin:Moorestown, NJ	10.000	0.000		0.000		0.000		-		0.000	0.000	10.000	
Systems Engineering	C/FFP	CS-Raytheon:Sudbury, MA	9.909	0.000		0.000		0.000		-		0.000	0.000	9.909	
Systems Engineering	WR	NSWC/PHD (VAB):Virginia Beach, VA	0.730	0.000		0.000		0.000		-		0.000	0.000	0.730	
Systems Engineering	C/FP	Program Office System Engineering Staff:Washington, DC	1.855	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering	SS/CPFF	INTEGRITS (via KRATOS):San Diego, CA	0.149	0.000		0.000		0.000		-		0.000	0.000	0.149	
Systems Engineering	WR	NAWC AD:Patuxent River, MD	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering	WR	SCSC Wallops:Wallops Island, VA	0.037	0.049	Jan 2012	0.111	May 2013	0.075	Dec 2013	-		0.075	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3186: *Air and Missile Defense Radar*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	SPAWAR:San Diego, CA	0.028	0.025	Dec 2011	0.201	May 2013	0.135	Dec 2013	-		0.135	0.000	0.389	
Systems Engineering	C/FPIF	TD Contractor Raytheon:Sudbury, MA	89.751	29.009	Oct 2011	0.000		0.000		-		0.000	0.000	118.760	
Systems Engineering	WR	NAVFAC MID-ATLANTIC:Pearl Harbor, HI	4.026	0.000		0.000		0.000		-		0.000	0.000	4.026	
Systems Engineering	C/FPIF	TD Contractor Northrop Grumman:Linthicum Heights, MD	89.751	30.249	Oct 2011	0.000		0.000		-		0.000	0.000	120.000	
Systems Engineering	C/FPIF	TD Contractor Lockheed Martin:Moorestown, NJ	89.751	30.249	Oct 2011	0.000		0.000		-		0.000	0.000	120.000	
Systems Engineering	MIPR	ARL:Adelphi, MD	0.206	0.239	Jan 2012	0.755	May 2013	0.508	Dec 2013	-		0.508	Continuing	Continuing	Continuing
Systems Engineering	C/CPIF	TBD-AMDR-S/RSC EMD:Not Specified	0.000	0.000		172.776	May 2013	176.496	Dec 2013	-		176.496	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWC WD:Pt. Mugu, CA	0.501	3.806	Dec 2011	5.868	May 2013	0.563	Dec 2013	-		0.563	0.000	10.738	
Systems Engineering	WR	NSWC. CD:Carderock, MD	0.000	0.256	Jan 2013	0.000		0.383	Dec 2013	-		0.383	0.000	0.639	
Systems Engineering	C/FFP	Alion Science:Washington, DC	0.000	0.540	Feb 2013	0.000		0.423	Dec 2013	-		0.423	0.000	0.963	
		Subtotal	530.332	143.750		218.616		235.961		0.000		235.961			

Remarks

AMDR-S/RSC Engineering and Manufacturing Development contract has not yet been awarded, therefore 'Performer' TBD.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3186: *Air and Missile Defense Radar*

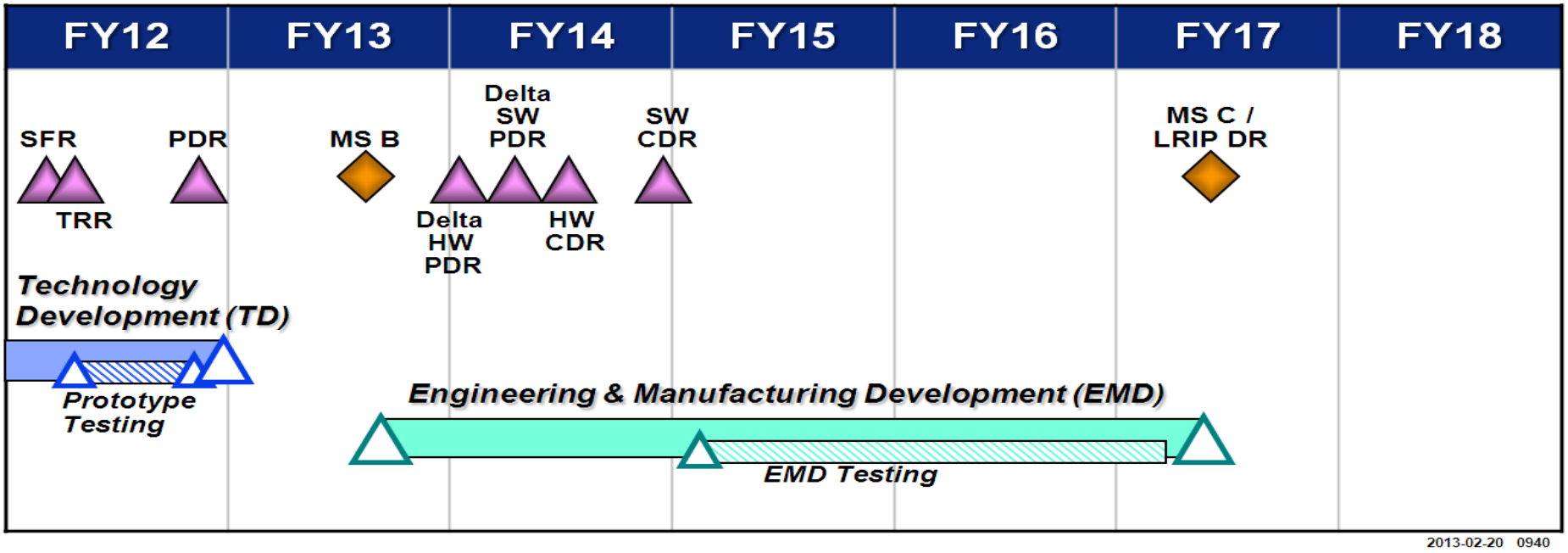
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Management Services	SS/FFP	BAE Systems:Rockville, MD	5.319	0.000		0.000		0.000		-		0.000	0.000	5.319	
Support Management Services	C/CPFF	SPA-PSS:Alexandria, VA	9.206	2.898	Jan 2012	2.217	Dec 2012	2.255	Dec 2013	-		2.255	Continuing	Continuing	Continuing
Travel	Allot	PEOIWS2:Washington, DC	0.511	0.062	Jan 2012	0.113	Dec 2012	0.115	Dec 2013	-		0.115	Continuing	Continuing	Continuing
DAWDF	Various	N/A:N/A	0.513	0.000		0.000		0.000		-		0.000	0.000	0.513	
Support Management Services	WR	NSWC/IHD:Indian Head, MD	1.142	0.000		0.000		0.000		-		0.000	0.000	1.142	
Support Management Services	WR	NSWC/DD:Dahlgren, VA	0.000	1.902	Nov 2011	2.675	Dec 2012	1.801	Dec 2013	-		1.801	Continuing	Continuing	Continuing
		Subtotal	16.691	4.862		5.005		4.171		0.000		4.171			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	547.023	148.612		223.621		240.132		0.000		240.132			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3186: *Air and Missile Defense Radar*



CDR	Critical Design Review
DR	Decision Review
HW	Hardware
LRIP	Low Rate Initial Production
MS	Milestone
PDR	Preliminary Design Review
SFR	System Functional Review
TRR	Test Readiness Review
SW	Software

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604501N: *Advanced Above Water Sensors*	**PROJECT** 3186: *Air and Missile Defense Radar*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3186				
Technology Development (TD)	1	2012	4	2012
TD System Functional Review (SFR)	1	2012	1	2012
TD Test Readiness Review (TRR)	2	2012	2	2012
TD Prototype Testing	2	2012	4	2012
TD Preliminary Design Review (PDR)	4	2012	4	2012
Milestone B (MS B)	3	2013	3	2013
Engineering & Manufacturing Development (EMD)	3	2013	2	2017
EMD HW Delta PDR	1	2014	1	2014
EMD SW / System Delta PDR	2	2014	2	2014
EMD HW Critical Design Review (CDR)	3	2014	3	2014
EMD SW / System Critical Design Review (CDR)	4	2014	4	2014
EMD Testing	1	2015	1	2017
Milestone C (MS C) / Low Rate Initial Production Decision Review (LRIP DR)	2	2017	2	2017

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3187: *Periscope Detection*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3187: *Periscope Detection*	33.704	21.711	1.730	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	57.145
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Periscope Detection: The CVN Periscope Detection Radar program, AN/SPS-74(V), develops and delivers the capability which provides automated detection and discrimination of submarine periscopes using advanced algorithms. This enables discrimination of periscopes from surface contacts, buoys, small boats, floating mines, etc. This effort was initially based on an Advanced Development Model (ADM), developed in PE 0603553N, Surface Antisubmarine Warfare. VCNO Memorandum Ser N09/12U100544 dtd 17 Dec, 2012 directs cancellation of the AN/SPS-74 Program. FY12 and FY13 funding will develop the Periscope Detection and Discrimination (PDD) interface for the AN/SPQ-9B Radar.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Periscope Detection	21.711	1.730	0.000
Articles:	0	0	
FY 2012 Accomplishments: - Began planning for First Article Testing for AN/SPS-74(V) to include Environmental Qualification Testing (EQT) and below deck shock testing. Completed development of Radar Data Processor (RDP) for AN/SPS-74(V). - Began AN/SPQ-9B Radar PDD interface development and testing. Began planning for Independent Operational Test and Evaluation (IOT&E).			
FY 2013 Plans: - Complete AN/SPQ-9B Radar PDD interface development and testing.			
Accomplishments/Planned Programs Subtotals	21.711	1.730	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2040: *0204228N/2040 Radar Support (OPN)*	10.618	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	27.507
• OPN/2980: *0204228N/2980 Radar Support (OPN)*	0.000	10.356	0.700		0.700	0.700	0.700	0.700	0.700	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3187: *Periscope Detection*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

Current Program supports four (4) Advanced Demonstration Models (ADMs).

E. Performance Metrics

- Complete AN/SPQ-9B PDD Interface Development and Testing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3187: *Periscope Detection*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Design Support	SS/CPFF	JHU/APL:Laurel, MD	2.071	2.828	Jan 2012	0.000		0.000		-		0.000	0.000	4.899	
Primary Hardware Development	SS/CPFF	NGC:Baltimore, MD	8.162	3.392	Feb 2012	1.130	Apr 2013	0.000		-		0.000	0.000	12.684	
Engineering Design Support	WR	NSWC/ Dahlgren:Dahlgren, VA	2.270	0.000		0.000		0.000		-		0.000	0.000	2.270	
Primary Hardware Development	SS/CPFF	3 Phoenix:Fairfax, VA	9.012	10.524	Feb 2012	0.000		0.000		-		0.000	0.000	19.536	
		Subtotal	21.515	16.744		1.130		0.000		0.000		0.000	0.000	39.389	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	WR	NSWC/PHD:Virginia Beach, VA	7.289	1.428	Nov 2011	0.000		0.000		-		0.000	0.000	8.717	
Test and Evaluation	WR	OPTEVFOR:Norfolk, VA	0.150	0.005	Jan 2012	0.000		0.000		-		0.000	0.000	0.155	
Test and Evaluation	WR	NSWC/PHD:Port Hueneme, CA	0.802	2.732	Nov 2011	0.400	Mar 2013	0.000		-		0.000	0.000	3.934	
Test and Evaluation	WR	NSWC/Crane:Crane, IN	2.227	0.050	Jan 2012	0.075	Mar 2013	0.000		-		0.000	0.000	2.352	
Test and Evaluation	WR	NSWC/ Corona:Corona, CA	0.000	0.052	Nov 2011	0.000		0.000		-		0.000	0.000	0.052	
Test and Evaluation	WR	NRL:Washington, DC	1.571	0.700	Nov 2011	0.125	Mar 2013	0.000		-		0.000	0.000	2.396	
		Subtotal	12.039	4.967		0.600		0.000		0.000		0.000	0.000	17.606	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3187: *Periscope Detection*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Management Services	SS/CPFF	GCAS:San Marcos, CA	0.051	0.000		0.000		0.000		-		0.000	0.000	0.051	
Support Management Services	C/CPAF	DTI:Norfolk, VA	0.063	0.000		0.000		0.000		-		0.000	0.000	0.063	
DAWDF	Allot	N/A:N/A	0.036	0.000		0.000		0.000		-		0.000	0.000	0.036	
		Subtotal	0.150	0.000		0.000		0.000		0.000		0.000	0.000	0.150	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	33.704	21.711		1.730		0.000		0.000		0.000	0.000	57.145	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3187: *Periscope Detection*

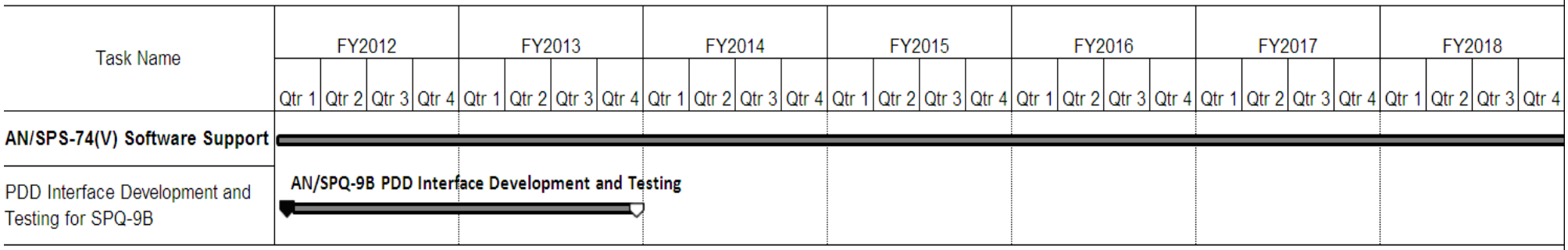


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604501N: *Advanced Above Water Sensors*	**PROJECT** 3187: *Periscope Detection*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3187				
AN/SPS-74(V) ADM Software Support	1	2012	4	2018
PDD Interface Development and Testing for AN/SPQ-9B	1	2012	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3188: *Dual-Band Radar*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3188: *Dual-Band Radar*	34.151	21.008	12.042	18.893	-	18.893	14.281	8.434	6.997	7.102	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Dual-Band Radar (DBR) Upgrades: Funding is for Dual Band Radar (DBR) System upgrades to implement cost savings initiatives for Volume Search Radar (VSR) modifications, supportability analysis and associated logistics product updates; future upgrades/technology insertion efforts for Multi-Function Radar (MFR)/VSR as a part of the DBR suite on CVN 78 Class ships and the MFR on DDG 1000 Class ships. Funding is also required to resolve the hardware and software issues discovered during the various test events to include: DTB2-411, SDTS testing, Land Based Testing and pertinent At-Sea test events. The upgrades will include all aspects of the radar system/subsystems, including hardware and software. Specific subsystem areas include the Array, Transmit/Receive (T/R) module, Receiver/Exciter, Signal Data Processor, Radome, and power/cooling systems. Upgrades and technology insertions are required to maintain the level of force protection needed for ship defense against all threats envisioned in the littoral environment. The supportability analysis and logistic products associated with these upgrades will also be developed and updated.

DBR Battle Force Tactical Trainer (BFTT)/Cooperative Engagement Capability (CEC)/Surface Electronic Warfare Improvement Program (SEWIP) Interface: FY12-14 requirement supports the design and development of the software interface between DBR and AN/USQ-46 BFTT, CEC and SEWIP to enhance CVN 78 combat readiness. The contract award is planned for FY12 and continues with validation testing in FY14.

DBR CVN 78 Testing and Certification: FY12-FY17 requirement supports DBR At-Sea Test and Evaluation (T&E), Environmental Testing and DBR Systems Certification for CVN 78.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: RADAR UPGRADES TECHNOLOGY INSERTION	16.363	8.288	11.920
Articles:	0	0	0
FY 2012 Accomplishments:			
- Finalized VSR development and testing.			
- Conducted Technology Insertion for the MFR/VSR/DBR hardware and software and development/updates to associated logistics products.			
- Prepared for software development to implement live over simulation training capability in support of BFTT integration.			
- Prepared for software development to implement DBR/SEWIP interface.			
- Commenced software development to implement DBR/CEC interface.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3188: *Dual-Band Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Provided technical support for the DBR element certification in support of the overall combat system certification for CVN 78. ***FY 2013 Plans:*** - Continue Technology Insertion for the MFR/VSR/DBR hardware and software and development/updates to associated logistics products. - Commence software development to implement live over simulation training capability in support of BFTT integration. - Commence software development to implement DBR/SEWIP interface. - Continue software development to implement DBR/CEC interface. - Continue to provide technical support for the DBR element certification in support of the overall combat system certification for CVN 78. ***FY 2014 Plans:*** - Continue Technology Insertion for the MFR/VSR/DBR hardware and software and development/updates to associated logistics products. - Continue software development to implement live over simulation training capability in support of BFTT integration. - Complete software development of DBR/SEWIP interface. - Complete software development of DBR/CEC interface. - Continue to provide technical support for the DBR element certification in support of the overall combat system certification for CVN 78. - Conduct validation testing of the DBR/BFTT, DBR/CEC and DBR/SEWIP software interfaces.			
Title: RADAR UPGRADES GOVERNMENT ENGINEERING SERVICES	4.007	3.309	6.493
Articles:	0	0	0
FY 2012 Accomplishments: - Provided Government Engineering Services support for radar upgrades and technology insertion of the MFR/VSR/DBR radars. Performed oversight and assessment of efforts associated with this phase of the program. - Provided Government Engineering Services in support of DBR BFTT integration for CVN 78. - Commenced DBR EMI testing efforts. - Completed assessment of VSR Radome Performance. - Provided Government Engineering Services for the DBR/CEC and DBR/SEWIP software interface development. ***FY 2013 Plans:*** - Continue to provide Government Engineering Services support for radar upgrades and technology insertion of the MFR/VSR/DBR radars. Perform oversight and assessment of efforts associated with this phase of the program. - Complete DBR EMI testing efforts. - Continue to provide Government Engineering Services in support of DBR BFTT integration for CVN 78.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3188: *Dual-Band Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Provide Government Engineering Services required to complete DBR element certification to support overall combat system certification for CVN 78. - Continue to provide Government Engineering Services for the DBR/CEC and DBR/SEWIP software interface development. ***FY 2014 Plans:*** - Continue to provide Government Engineering Services support for radar upgrades and technology insertion of the MFR/VSR/ DBR radars. Perform oversight and assessment of efforts associated with this phase of the program. - Continue to provide Government Engineering Services in support of DBR BFTT integration for CVN 78. - Continue to provide Government Engineering Services required to complete DBR element certification to support overall combat system certification for CVN 78. - Continue to provide Government Engineering Services for the DBR/CEC and DBR/SEWIP software interface development. - Provide engineering services to support validation testing of the DBR/BFTT, DBR/CEC and DBR/SEWIP software interfaces.			
Title: RADAR UPGRADES PROGRAM MANAGEMENT	0.638	0.445	0.480
Articles:	0	0	0
FY 2012 Accomplishments: - Provided Program Management and logistics support for radar upgrades and technology insertion for the MFR/VSR/DBR radars. - Provided Program Management for the DBR/BFTT, DBR/CEC and DBR/SEWIP software interface development. ***FY 2013 Plans:*** - Continue to provide Program Management and logistics support for radar upgrades and technology insertion for the MFR/VSR/ DBR radars. - Continue to provide Program Management support of DBR BFTT integration for CVN 78. ***FY 2014 Plans:*** - Continue to provide Program Management and logistics support for radar upgrades and technology insertion for the MFR/VSR/ DBR radars. - Continue to provide Program Management support of DBR BFTT integration for CVN 78. - Provide Program Management for validation testing of the DBR/BFTT, DBR/CEC and DBR/SEWIP software interfaces.			
Accomplishments/Planned Programs Subtotals	21.008	12.042	18.893

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3188: *Dual-Band Radar*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2980: *BLI 2980/OPN Items Less Than $5M*	0.000	4.900	3.263		3.263	4.408	11.674	16.467	16.467	Continuing	Continuing
• OMN/0702228N: *0702228N/1C2C/O&M,N*	0.000	1.312	3.058		3.058	3.548	3.143	3.043	3.100	Continuing	Continuing

Remarks

D. Acquisition Strategy

Radar Upgrades and logistic products will be developed to address lessons learned and technology refresh for DBR systems on multiple ship classes.

E. Performance Metrics

- Complete upgrade studies and analyses each fiscal year to determine efficiencies for H/W and S/W upgrades and to determine appropriate logistics product updates
- Complete co-site and off-ship EMI analysis testing
- Complete VSR Radome development and determine opportunities to improve configuration and performance
- Complete upgrade technology insertion
- Complete development of logistics products
- Implement supportability analysis to improve supportability and reduce overall lifecycle cost
- Complete DBR At-Sea Test and Evaluation (T&E)
- Complete Environmental Testing
- Complete DBR/CEC interface development
- Complete DBR Systems Certification
- Complete CAPS redesign
- Complete DBR/SEWIP interface development
- Complete DBR/BFTT interface development

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3188: *Dual-Band Radar*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	Other Government Activities:Various	1.143	0.000		0.000		0.000		-		0.000	0.000	1.143	
Government Engineering Support	WR	NSWC/ Dahlgren:Dahlgren, VA	3.315	2.763	Nov 2011	1.311	Jan 2013	2.772	Dec 2013	-		2.772	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC/PHD:Port Hueneme, CA	2.767	0.414	Jun 2012	1.176	Apr 2013	2.246	Dec 2013	-		2.246	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC/Crane:Crane, IN	3.941	0.342	Jan 2012	0.491	Jan 2013	0.750	Dec 2013	-		0.750	Continuing	Continuing	Continuing
Government Engineering Support	WR	NRL:Washington, DC	3.725	0.000		0.000		0.000		-		0.000	0.000	3.725	
Government Engineering Support	SS/CPFF	JHU/APL:Columbia, MD	0.300	0.330	Dec 2011	0.121	Feb 2013	0.400	Dec 2013	-		0.400	Continuing	Continuing	Continuing
Government Engineering Support	MIPR	NSMA:Arlington, VA	0.903	0.000		0.000		0.000		-		0.000	0.000	0.903	
Government Engineering Support	SS/CPFF	GTRI:Atlanta, GA	0.453	0.127	Feb 2012	0.000		0.250	Dec 2013	-		0.250	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC/ Carderock:Philadelphia, PA	0.044	0.031	Dec 2011	0.215	Jan 2013	0.075	Dec 2013	-		0.075	Continuing	Continuing	Continuing
Systems Engineering	SS/CPFF	Raytheon:Raytheon, Sudbury, MA	12.921	16.363	Jun 2012	8.288	Dec 2012	11.920	Dec 2013	-		11.920	Continuing	Continuing	Continuing
Systems Engineering	SS/CPAF	Raytheon IDS:San Diego, CA	1.500	0.000		0.000		0.000		-		0.000	0.000	1.500	
Systems Engineering	SS/CPFF	General Dynamics AIS:Fairfax, VA	1.000	0.000		0.000		0.000		-		0.000	0.000	1.000	
Systems Engineering	SS/CPFF	PMS 320 Syntek:Arlington, VA	0.400	0.000		0.000		0.000		-		0.000	0.000	0.400	
		Subtotal	32.412	20.370		11.602		18.413		0.000		18.413			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3188: *Dual-Band Radar*

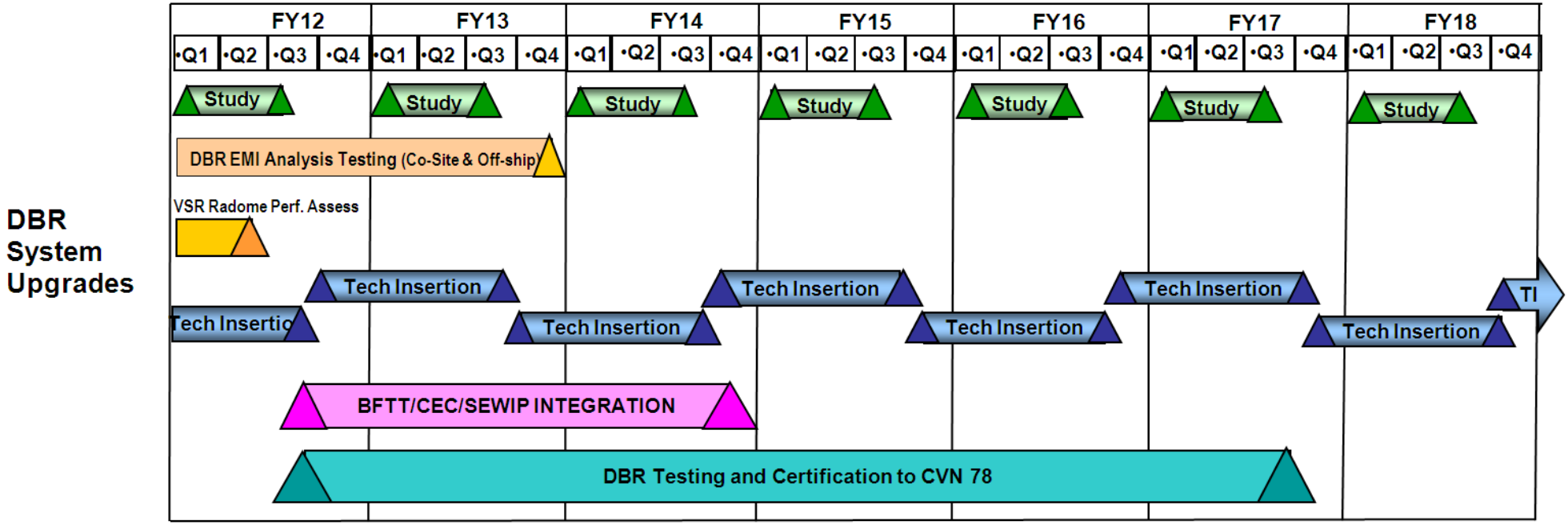
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	SPA:Washington, DC	1.546	0.624	Jan 2012	0.410	Jan 2013	0.450	Dec 2013	-		0.450	Continuing	Continuing	Continuing
DAWDF	Allot	N/A:N/A	0.027	0.000		0.000		0.000		-		0.000	0.000	0.027	
Travel	Allot	PEOIWS2:Washington, DC	0.100	0.014	Jan 2012	0.030	Dec 2012	0.030	Dec 2013	-		0.030	0.000	0.174	
Program Management Support	C/CPIF	ALION:Washington, DC	0.026	0.000		0.000		0.000		-		0.000	0.000	0.026	
Program Management Support	C/CPFF	CACI:Washington, DC	0.040	0.000		0.000		0.000		-		0.000	0.000	0.040	
		Subtotal	1.739	0.638		0.440		0.480		0.000		0.480			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	34.151	21.008		12.042		18.893		0.000		18.893			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3188: *Dual-Band Radar*



Note: Supportability Analysis is conducted in conjunction with the Study.
Hardware, software and logistic product updates are conducted in conjunction with the Tech Insertion and CVN 78 BFTT/CEC/SEWIP Integration.
DBR At-Sea T&E, Environmental Testing and DBR System Certification are included in the DBR Testing and Certification support to CVN 78

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604501N: *Advanced Above Water Sensors*	**PROJECT** 3188: *Dual-Band Radar*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3188				
DBR System Upgrade Studies and Analysis	1	2012	3	2018
DBR EMI Analysis Testing (Co-Site & Off-ship)	1	2012	4	2013
DBR VSR Radome Performance Assessment	1	2012	2	2012
DBR System Upgrade Technology Insertion	1	2012	4	2018
DBR BFTT Integration for CVN 78	3	2012	4	2014
DBR Testing and Certification to CVN 78	3	2012	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3232: *Multi-Mission Signal Processor*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3232: *Multi-Mission Signal Processor*	84.874	23.282	14.617	14.795	-	14.795	15.856	16.290	16.545	16.797	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Multi-Mission Signal Processor (MMSP): The development of Multi-Mission Signal Processor (MMSP) provides Anti-Air Warfare (AAW)/Ballistic Missile Defense (BMD) Multi-mission capability for DDG 51 class ships as part of Aegis Modernization Program. This capability will be utilized for DDG 113 and follow new construction and Aegis Ashore. Modifies SPY-1D Transmitters to enable dual beam for reduced frame times and better reaction time, and provides stability for all D (V) waveforms and avoid operational degradation. The SPY-1 radar system detects, tracks and supports engagements of a broader range of threats. MMSP improves performance in littoral, ducted clutter environments, and in electronic attack (EA), and chaff environments and provides greater commonality in computer programs and equipment. This effort also provides for the development of a Solid State Switch Assembly (SSSA) through an ONR/MANTECH project, MMSP Commercial Off-The-Shelf (COTS) refresh, radar capability upgrades, reliability improvements, and ship-based Non-Cooperative Target Recognition (NCTR).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: SYSTEMS ENGINEERING	23.282	14.617	14.795
Articles:	0	0	0

FY 2012 Accomplishments:

- Prepared for and completed the Multi-Mission Exercise and Qualification Testing
- Continued to support MMSP integration testing with ACB-12 to address all MMSP related issues
- Installed Transmitter Modification at CSEDS
- Continued to maintain alignment with the Ballistic Missile Defense Program and the associated Ballistic Missile Defense Signal Processor (BSP) adjunct to incorporate BMD capability within MMSP during AEGIS Modernization

FY 2013 Plans:

- Support Aegis Light Off (ALO)
- Continue to support MMSP integration testing with ACB-12 to address all MMSP related issues
- Initiate validation and verification testing and computer program corrections
- Continue to maintain alignment with the Ballistic Missile Defense Program and the associated Ballistic Missile Defense Signal Processor (BSP) adjunct to incorporate BMD capability within MMSP during AEGIS Modernization
- Initiate design and development of MANTECH Solid State Switch Assembly (SSSA)

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3232: *Multi-Mission Signal Processor*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Initiate MMSP COTS Refresh and reliability improvements - Initiate DDG Baseline 9 Radar Capabilities Upgrades, Ship-Based NCTR, and Baseline 9 Radar Synchronization - ACB 16 Radar requirements analysis and acquisition management			
FY 2014 Plans: - Support of Combat System Ship Qualification Trials (CSSQT) testing - MMSP/ACB12 Radar Integration at-sea validation testing and Computer Program Correction - Continue design and development of MANTECH SSSA - Continue COTS Refresh and reliability improvements -Continue DDG Baseline 9 Radar Capabilities Upgrades, Ship-Based NCTR, and Baseline 9 Radar Synchronization - Initiate ACB 16 Radar upgrades for MMSP development - Continue to maintain alignment with the Ballistic Missile Defense Program and the associated Ballistic Missile Defense Signal Processor (BSP) adjunct to incorporate BMD capability within MMSP during AEGIS Modernization			
Accomplishments/Planned Programs Subtotals	23.282	14.617	14.795

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN/2122: *BLI 2122/SCN DDG 51*	2,081.432	3,514.941	2,004.115		2,004.115	2,877.046	3,443.611	3,732.564	3,693.696	Continuing	Continuing
• OPN/0900: *BLI 0900/OPN DDG Modernization*	126.373	452.371	285.994		285.994	517.286	469.890	530.225	801.286	Continuing	Continuing

Remarks

D. Acquisition Strategy

Multi-Mission Signal Processor (MMSP) provides AAW/BMD Multi-mission capability for AEGIS Modernization Program and leverages BMD 4.0.1 and SPY-1D(V) designs. This MMSP development efforts support integration of BMD 5.0 signal processing, and will lead to the OPN/SCN procurement for shore sites and shipsets. This effort also provides for the development of a Solid State Switch Assembly (SSSA) through an ONR/MANTECH project, and will lead to OPN/SCN procurement for shore sites and shipsets. COTS refresh, radar capability upgrades, reliability improvements, and ship-based Non-Cooperative Target Recognition will be incorporated into Baseline 9 and follow.

E. Performance Metrics

- Complete DDG SPY-1D(V) Engineering Exercise (EE) #2
- Complete DDG Qualification Testing

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3232: *Multi-Mission Signal Processor*

- Complete DDG ACB 12 Multi-Mission Exercise
- Complete DDG Delivery
- Complete DDG Aegis Light Off (ALO)
- Complete DDG Combat System Ship Qualification Trials (CSSQT)
- Complete DDG Final Certification
- Complete DDG Commercial Off The Shelf (COTS) Refresh - Engineering Change Proposal (ECP)
- Complete Solid State Switch Assembly contract award
- Complete Solid State Switch Assembly Critical Design Review (CDR)
- Complete Solid State Switch Assembly Final Certification
- Complete Ship-Based NCTR Engineering Exercise
- Complete ACB16 Preliminary Design Review (PDR)
- Complete ACB16 CDR
- Complete ACB16 Demo
- Complete ACB16 ALO
- Complete ACB16 Final Certification
- Complete ACB Next PDR
- Complete ACB Next CDR
- Complete ACB Next Test Readiness Review (TRR)

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3232: *Multi-Mission Signal Processor*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SYSTEM ENGINEERING	SS/CPFF	Lockheed Martin:Moorestown, NJ	77.236	15.799	Jan 2012	6.742	Dec 2012	6.784	Dec 2013	-		6.784	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	C/CPFF	AEGIS Techrep:Moorestown, NJ	1.084	1.527	Jan 2012	0.900	Dec 2012	0.902	Dec 2013	-		0.902	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	SS/FP	APL/JHU:Laurel, MD	1.188	1.121	Jan 2012	0.970	Jan 2013	0.972	Dec 2013	-		0.972	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	WR	CSCS:Dahlgren, VA	0.513	0.285	Jan 2012	0.210	Dec 2012	0.303	Dec 2013	-		0.303	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	WR	NRL:Washington, DC	0.960	0.799	Jan 2012	0.664	Nov 2012	0.659	Dec 2013	-		0.659	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	WR	NSWC/DD:Dahlgren, VA	1.153	1.487	Jan 2012	1.128	Nov 2012	1.146	Nov 2013	-		1.146	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	WR	NSWC/CR:Crane, IN	0.980	0.810	Jan 2012	0.583	Nov 2012	0.608	Nov 2013	-		0.608	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	WR	NSWC/PHD:Port Hueneme, CA	1.110	1.049	Jan 2012	0.805	Nov 2012	0.808	Nov 2013	-		0.808	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	WR	Office of Naval Research:Arlington, VA	0.000	0.000		2.250	Dec 2012	2.250	Oct 2013	-		2.250	Continuing	Continuing	Continuing
		Subtotal	84.224	22.877		14.252		14.432		0.000		14.432			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	Allot	PEOIWS2:Washington, DC	0.100	0.038	Jan 2012	0.032	Nov 2012	0.030	Nov 2013	-		0.030	Continuing	Continuing	Continuing
PSS	C/CPFF	SPA-PSS:Washington, DC	0.550	0.367	Nov 2011	0.333	Jan 2013	0.333	Nov 2013	-		0.333	Continuing	Continuing	Continuing
		Subtotal	0.650	0.405		0.365		0.363		0.000		0.363			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3232: *Multi-Mission Signal Processor*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	84.874	23.282		14.617		14.795		0.000		14.795			

Remarks

Between PB13 and PB14, reduced funding due to cancelation of MMSP for Cruiser development.

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3232: *Multi-Mission Signal Processor*

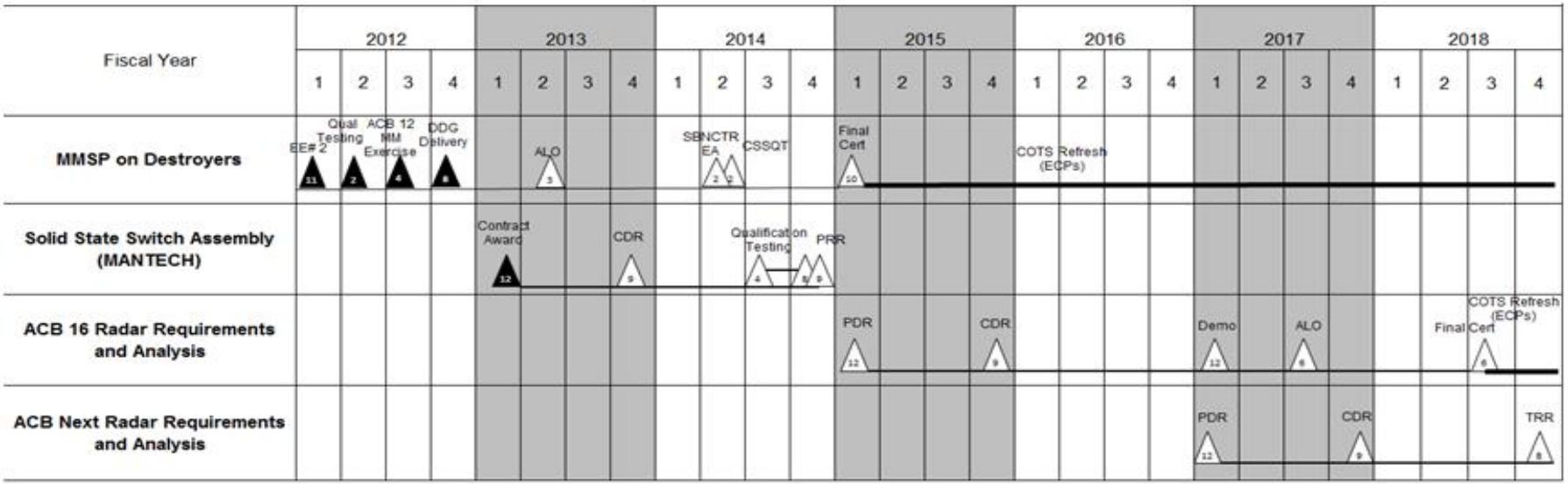


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604501N: *Advanced Above Water Sensors*	**PROJECT** 3232: *Multi-Mission Signal Processor*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3232				
DDG SPY-1D(V) Engineering Exercise (EE) #2	1	2012	1	2012
DDG Qualification Testing	2	2012	2	2012
DDG ACB 12 Multi-Mission Exercise	3	2012	3	2012
DDG Delivery	4	2012	4	2012
Solid State Switch Assembly Contract Award	1	2013	1	2013
DDG Aegis Light Off (ALO)	2	2013	2	2013
Solid State Switch Assembly CDR	4	2013	4	2013
DDG Combat System Ship Qualification Trials (CSSQT)	2	2014	2	2014
Ship-Based Non-Cooperative Target Recognition Engineering Exercise	2	2014	2	2014
Solid State Switch Assembly Qualification Testing	3	2014	4	2014
Solid State Switch Assembly PRR	4	2014	4	2014
DDG Final Certification	1	2015	1	2015
DDG Commercial Off The Shelf (COTS) Refresh - Engineering Change Proposals (ECP)	1	2015	4	2018
ACB 16 Preliminary Design Review (PDR)	1	2015	1	2015
ACB 16 Critical Design Review (CDR)	4	2015	4	2015
ACB 16 Demo	1	2017	1	2017
ACB Next PDR	1	2017	1	2017
ACB 16 ALO	3	2017	3	2017
ACB Next CDR	4	2017	4	2017
ACB 16 Final Certification	3	2018	3	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3232: *Multi-Mission Signal Processor*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ACB 16 COTS Refresh - ECP	3	2018	4	2018
ACB Next Test Readiness Review (TRR)	4	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3301: *Improved Capabilities SPY-1 Radar*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3301: *Improved Capabilities SPY-1 Radar*	3.481	4.509	3.506	2.051	-	2.051	0.935	0.954	0.964	0.980	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Improved Capabilities for SPY-1 Radar: These Reliability, Maintainability, and Availability (RM&A) improvements are intended to reduce cascading failures, mitigate obsolescence issues, and improve reliability in support of Anti-Air Warfare (AAW) and Ballistic Missile Defense (BMD) missions while still providing AN/SPY-1 Radar Total Ownership Cost Reductions. Improvements will yield reductions in annual fleet maintenance costs.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Improved Capabilities SPY-1 Radar	4.509	3.506	2.051
Articles:	0	0	0

FY 2012 Accomplishments:
- Continued design and development of Sidewall Capacitor monitoring circuit for HVPS
- Continued design, development, Environmental Testing for 10KW Traveling Wave Tube (TWT)
- Initiated design improvements to filament for Switch Tube
- Initiated design and development of reliability improvements for the Simplified Driver (SDR)
- Initiated design and development of the Crossed Field Amplifier (CFA) Microwave Tube
- Initiated development of additional cost reduction initiatives

FY 2013 Plans:
- Finalize design and development of Sidewall Capacitor monitoring circuit for High Voltage Power Supply (HVPS)
- Finalize design and development of 10KW TWT
- Finalize design improvements to filament for Switch Tube
- Finalize design and development of Crossed Field Amplifier Microwave Tube
- Continue design and development of reliability improvements for the SDR
- Initiate Water Cooled Vane (WCV) to Double Duty (DD) engineering development
- Continue development of additional cost reduction initiatives

FY 2014 Plans:
- Finalize WCV to DD engineering development

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3301: *Improved Capabilities SPY-1 Radar*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Finalize design and development of reliability improvements for the SDR - Continue development of additional cost reduction initiatives			
Accomplishments/Planned Programs Subtotals	4.509	3.506	2.051

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2980: *Items Less Than $5M*	0.000	2.400	9.592		9.592	6.399	1.500	1.627	1.627	Continuing	Continuing
• O&MN/0702228N: *O&M,N AEGIS Wholeness SPY Transmitter Reliability*	0.000	3.600	4.100		4.100	4.700	2.700	6.300	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

Improved Capabilities SPY-1 Reliability, Maintainability, and Availability (RM&A) will design and development of an Ordnance Alterations (ORDALT) Package for fixes and modifications to known transmitter, microwave tube (MWT), and logistic shortcomings (also includes the MK-99 CWI MWT).

E. Performance Metrics

- Complete 10KW Traveling Wave Tube/Continuous Wave Illumination Microwave Tube (TWT/CWI MWT) Improvement Design/Development
- Complete A/B EI Switch Improvement Design/Development
- Complete Sidewall Capacitor Monitoring Circuit
- Complete 10KW Monitoring Circuit development
- Complete Crossed Field Amplifier/Switch Tube (CFA/SWT) MWT Improvement Design Development
- Complete MWT Improvement Design/Development
- Complete Water Cooled Vane (WCV) to Double Duty (DD) engineering development
- Complete Simplified Driver (SDR) reliability design improvements

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 3301: *Improved Capabilities SPY-1 Radar*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SYSTEM ENGINEERING	MIPR	Office of Naval Research:Arlington, VA	0.000	1.000	Aug 2012	0.000		0.000		-		0.000	0.000	1.000	
SYSTEM ENGINEERING	C/CPFF	Raytheon:Sudbury, MA	0.941	0.400	Jan 2012	0.400	Jan 2013	0.200	Dec 2013	-		0.200	Continuing	Continuing	Continuing
SYSTEM ENGINEERING	WR	NSWC/Crane, IN:Crane, IN	2.540	3.109	Jan 2012	3.106	Nov 2012	1.851	Nov 2013	-		1.851	Continuing	Continuing	Continuing
		Subtotal	3.481	4.509		3.506		2.051		0.000		2.051			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.481	4.509		3.506		2.051		0.000		2.051			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604501N: *Advanced Above Water Sensors*	**PROJECT** 3301: *Improved Capabilities SPY-1 Radar*

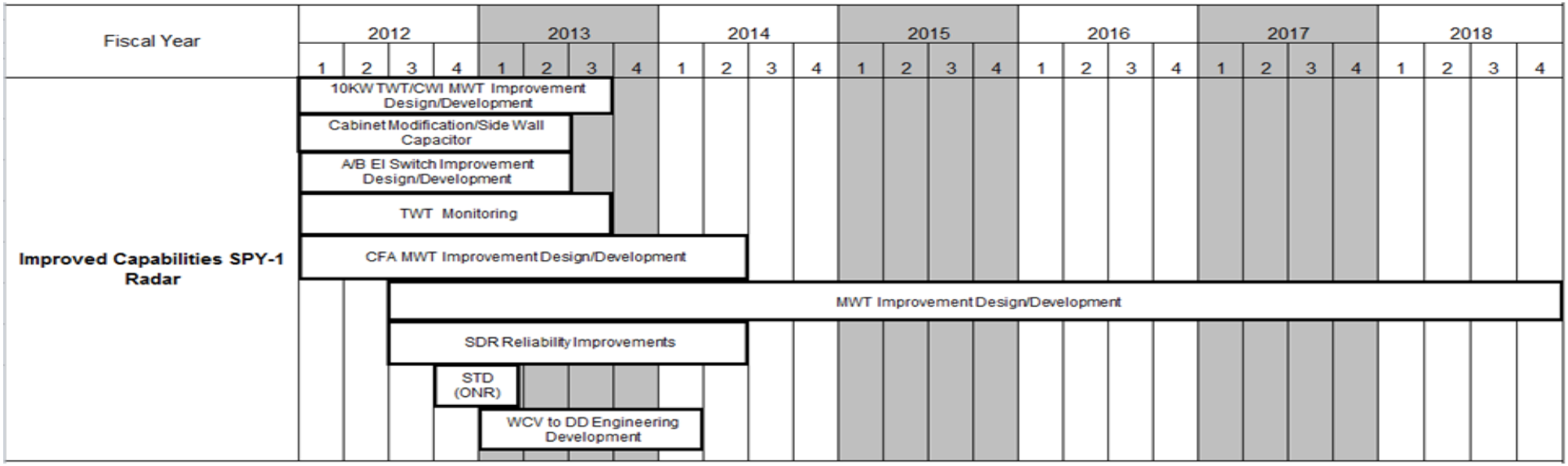


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604501N: *Advanced Above Water Sensors*	**PROJECT** 3301: *Improved Capabilities SPY-1 Radar*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3301				
10 KW Traveling Wave Tube (TWT)/Continuous Wave Illuminator (CWI) Microwave Tube (MWT) Improvement Design/Development	1	2012	3	2013
Cabinet Modification/Side Wall Capacitor	1	2012	2	2013
A/B Electric Switch Improvement Design/Development	1	2012	2	2013
Travel Wave Tube (TWT) Monitoring	1	2012	3	2013
Crossed Field Amplifier (CFA)/Switch Tube (SWT) Microwave Tube (MWT) Improvement Design/Development	1	2012	2	2014
MWT Improvement Design/Development	3	2012	4	2018
Simplified Driver (SDR) Reliability Improvements	3	2012	2	2014
Switch Tube Drawer (STD) Reliability Project - ONR	4	2012	1	2013
Water Cooled Vane (WCV) to Doubly Duty (DD) Engineering Development	1	2013	1	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	20.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	20.000
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Advanced Radar Innovation Fund: Funds the development and integration of existing and new technologies into the Navy's sensors to enhance performance and ensure sensor operations and sustainment throughout the lifecycle of the sensor and platforms on which installed.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013
Congressional Add: Adv Radar Innovation Fund - Surf (Cong)	20.000	-
FY 2012 Accomplishments: N/A		
Congressional Adds Subtotals	20.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Congressional Add.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604501N: *Advanced Above Water Sensors*	PROJECT 9999: *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	MIPR	Office of Naval Research:Arlington, VA	0.000	12.000	Sep 2013	0.000		0.000		-		0.000	0.000	12.000	
Systems Engineering	WR	NSWC/CR:Crane, IN	0.000	5.230	Dec 2012	0.000		0.000		-		0.000	0.000	5.230	
Systems Engineering	WR	NSWC/DD:Dahlgren, VA	0.000	1.055	Sep 2012	0.000		0.000		-		0.000	0.000	1.055	
Systems Engineering	WR	NSWC/PHD (VAB):Virginia Beach, VA	0.000	0.335	Nov 2012	0.000		0.000		-		0.000	0.000	0.335	
Systems Engineering	SS/CPFF	JHU/APL:Baltimore, MD	0.000	0.490	Feb 2013	0.000		0.000		-		0.000	0.000	0.490	
Systems Engineering	WR	NRL:Washington, DC	0.000	0.425	Sep 2012	0.000		0.000		-		0.000	0.000	0.425	
Systems Engineering	C/CPFF	SPA-PSS:Alexandria, VA	0.000	0.465	Sep 2012	0.000		0.000		-		0.000	0.000	0.465	
		Subtotal	0.000	20.000		0.000		0.000		0.000		0.000	0.000	20.000	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	20.000		0.000		0.000		0.000		0.000	0.000	20.000	

Remarks

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	1,095.441	89.083	82.620	89.672	-	89.672	82.880	99.607	97.220	88.984	Continuing	Continuing
0219: *Sub Sonar Improvement (ENG)*	699.928	52.099	53.835	55.674	-	55.674	57.388	58.197	59.521	60.480	Continuing	Continuing
0742: *Sub Integrated Ant System*	223.690	24.202	18.395	18.777	-	18.777	14.276	28.534	24.546	15.169	Continuing	Continuing
0775: *Submarine Supt Equip Prog*	5.775	1.241	1.297	1.318	-	1.318	1.363	1.395	1.422	1.445	Continuing	Continuing
1411: *Sub Tact Comm System*	166.048	11.541	9.093	13.903	-	13.903	9.853	11.481	11.731	11.890	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Submarine Support Equipment Program develops and improves submarine Electronic Warfare Support (EWS) technology, components, equipment, and systems that will increase submarine operational effectiveness, safety of ship, and survivability in an increasingly dense and sophisticated electromagnetic environment caused by the proliferation of complex radar, communications, and navigation equipment of potential adversaries. Enhancements are necessary for submarine EWS to be operationally effective in the following mission areas: Joint Littoral Warfare, Joint Surveillance, Space and Electronic Warfare and Intelligence Collection, Maritime protection, and Joint Strike.

The Submarine Sonar Improvement Program delivers block updates to Sonar Systems and improved Sensors installed on SSN 688, 688I, SSN 21, VIRGINIA, SSBN, and SSGN Class Submarines to maintain clear acoustical, tactical and operational superiority over submarine and surface combatants in all scenarios through detection, classification, localization, and contact following. Current developments are focused on supporting Littoral Warfare, Regional Sea Denial, Battle Group Support, Diesel Submarine Detection, Surveillance, and Peacetime Engagement.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	90.180	82.620	88.156	-	88.156
Current President's Budget	89.083	82.620	89.672	-	89.672
Total Adjustments	-1.097	0.000	1.516	-	1.516
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.100	0.000			
• SBIR/STTR Transfer	-2.198	0.000			
• Program Adjustments	0.000	0.000	1.147	-	1.147
• Rate/Misc Adjustments	0.001	0.000	0.369	-	0.369

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0219: *Sub Sonar Improvement (ENG)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0219: *Sub Sonar Improvement (ENG)*	699.928	52.099	53.835	55.674	-	55.674	57.388	58.197	59.521	60.480	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program delivers block updates to Sonar Systems installed on SSN 688, 688I, SSN 21, VIRGINIA, SSBN, and SSGN Class Submarines to maintain clear acoustical, tactical and operational superiority over submarines and surface combatants in all scenarios through detection, classification, localization, and contact following.

Acoustics Rapid COTS Insertion (A-RCI) was a multi-phased evolutionary development geared toward addressing acoustic superiority issues through the rapid introduction of interim development products applicable to all classes of submarines. A-RCI Phase I and II introduced Towed Array processing improvements, Phase III introduced Spherical

Array processing improvements, and Phase IV provided High Frequency (HF) Array processing improvements for SSN 688I, SSGN, VIRGINIA, and SSN 21 Class Submarines. As part of CNO N972's plan to maintain acoustic superiority for in-service submarines, a joint cooperative effort with PEO IWS-5 was established to deliver annual Advanced Processing

Builds (APBs) to prevent obsolescence and deliver ongoing capability improvements. The capabilities in the APBs will be integrated as part of A-RCI certified system.

Sensor efforts provide increased operational capabilities for littoral operations, situational awareness, and reliability improvements.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: APB Productionization	13.934	14.002	14.859
Articles:	0	0	0
Description: APB productionization provides for the transition of APB capability improvements to the Fleet for the integration, testing and formal certification.			
FY 2012 Accomplishments: Continued Advanced Processing Build (APB) Sea Testing, Integration, and Certification. This effort is primarily the transition of APB software from development to A-RCI for integration, testing, and formal certification.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0219: *Sub Sonar Improvement (ENG)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue Advanced Processing Build (APB) Sea Testing, Integration, and Certification. This effort is primarily the transition of APB software from development to A-RCI for integration, testing, and formal certification. ***FY 2014 Plans:*** Continue Advanced Processing Build (APB) Sea Testing, Integration, and Certification. This effort is primarily the transition of APB software from development to A-RCI for integration, testing, and formal certification.			
Title: Integration and Testing ***Articles:*** ***Description:*** Integration and Testing provides support to integrated and test APB's into all submarine classes with numerous sensor systems. ***FY 2012 Accomplishments:*** Supported Advanced Processing Builds installed on SSN 688I, SSN 688, SSBN 730, SSN 21, SSGN 726, and VA Class. ***FY 2013 Plans:*** Supports Advanced Processing Builds installed on SSN 688I, SSN 688, SSBN 730, SSN 21, SSGN 726, and VA Class. ***FY 2014 Plans:*** Supports Advanced Processing Builds installed on SSN 688I, SSN 688, SSBN 730, SSN 21, SSGN 726, and VA Class.	37.898 0	39.833 0	40.815 0
Title: Future Sensor Capability ***Articles:*** ***Description:*** Improves array capabilities, long-range passive detection, and component reliability through development of state-of-the-art technologies. ***FY 2012 Accomplishments:*** Developed a Non-Traditional Sensor System to furnish the sonar suite with previously-unavailable search tactics. Continued initiatives with single crystal, vector sensor, and fiber optic sonar technologies.	0.267 0	0.000	0.000
Accomplishments/Planned Programs Subtotals	52.099	53.835	55.674

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/BLI 214700: *SSN Acoustics*	175.950	155.332	179.415		179.415	193.586	224.285	184.213	244.235	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0219: *Sub Sonar Improvement (ENG)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/BLI 214705: *SSN Acoustics Installation*	36.431	35.542	20.023		20.023	26.289	28.493	40.981	29.170	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acoustic Systems:

A-RCI utilizes an open architecture and Commercial Off-the-Shelf products in support of new and upgraded sonar systems. A follow-on development and production sole source cost plus incentive fee contract was awarded to General Dynamics, Advanced Information Systems in August 2009 and to Lockheed Martin Maritime Systems & Sensors in April 2010. Program Review with Milestone Decision Authority was conducted in November 2011 granting approval for the FY12 production option.

E. Performance Metrics

The A-RCI program will modernize approximately 25% of the SSN Fleet per year through executing bi-annual software Advanced Processing Builds (APBs) and bi-annual hardware Technical Insertions (TIs).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0219: *Sub Sonar Improvement (ENG)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPIF	LMC:Manassas, VA	261.554	19.416	Dec 2011	21.052	Dec 2012	22.412	Dec 2013	-		22.412	Continuing	Continuing	Continuing
Ancillary Hardware Development	SS/CPFF	ARL University of Texas:Austin, TX	21.800	3.061	Feb 2012	3.113	Mar 2013	3.170	Mar 2014	-		3.170	Continuing	Continuing	Continuing
Systems Engineering	SS/CPFF	Johns Hopkins APL:Baltimore, MD	24.255	2.980	Dec 2011	3.030	Dec 2012	3.082	Dec 2013	-		3.082	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	Lockheed Eagan:MN -Keyport	21.276	3.024	Jan 2012	3.075	Jan 2013	3.127	Jan 2014	-		3.127	Continuing	Continuing	Continuing
Primary Hardware Development	C/CPIF	Progeny Systems:Manassas, VA	33.481	6.171	Jan 2012	6.257	Jan 2013	6.363	Jan 2014	-		6.363	Continuing	Continuing	Continuing
Systems Engineering	WR	NUWC:Newport, RI	143.445	6.250	Jan 2012	5.987	Dec 2012	5.951	Dec 2013	-		5.951	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC:Carderock, MD	15.705	2.514	Dec 2011	2.557	Dec 2012	2.674	Dec 2013	-		2.674	Continuing	Continuing	Continuing
		Subtotal	521.516	43.416		45.071		46.779		0.000		46.779			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Software Development	C/CPIF	General Dynamics, AIS:Fairfax, VA	142.553	3.015	Dec 2011	3.066	Dec 2012	3.118	Dec 2013	-		3.118	Continuing	Continuing	Continuing
Primary Software Development	C/CPFF	Sedna Digital,:Manassas, VA	16.757	4.004	Dec 2011	4.072	Dec 2012	4.141	Dec 2013	-		4.141	Continuing	Continuing	Continuing
		Subtotal	159.310	7.019		7.138		7.259		0.000		7.259			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0219: *Sub Sonar Improvement (ENG)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test and Evaluation	WR	OPTEVFOR:Norfolk, VA	7.404	0.600	Jan 2012	0.610	Dec 2012	0.620	Dec 2013	-		0.620	Continuing	Continuing	Continuing
		Subtotal	7.404	0.600		0.610		0.620		0.000		0.620			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Support Services	C/FFP	URS Technical Services:Washington, DC	10.100	0.814	Jan 2012	0.814	Dec 2012	0.814	Dec 2013	-		0.814	0.000	12.542	
Travel	WR	NAVSEA:Washington, DC	1.598	0.250	Dec 2011	0.202	Dec 2012	0.202	Dec 2013	-		0.202	Continuing	Continuing	Continuing
		Subtotal	11.698	1.064		1.016		1.016		0.000		1.016			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	699.928	52.099		53.835		55.674		0.000		55.674			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0219: *Sub Sonar Improvement (ENG)*

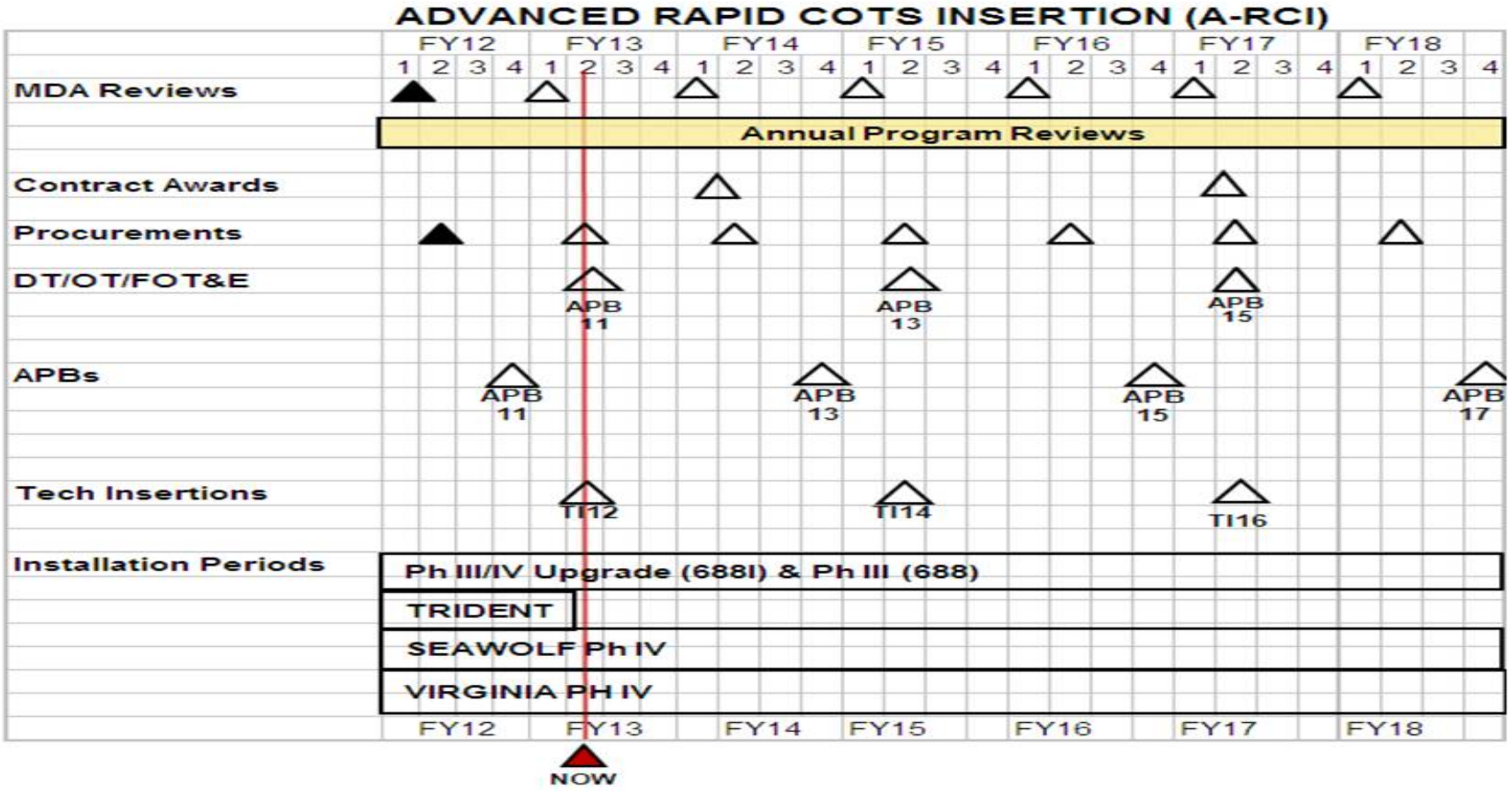


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604503N: *SSN-688 & Trident Modernization*	**PROJECT** 0219: *Sub Sonar Improvement (ENG)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0219				
ACOUSTICS	1	2012	4	2018
Acquisition Milestones	1	2012	1	2018
Annual Program Review	1	2012	4	2018
Contract Awards	1	2012	3	2014
Procurements	2	2012	2	2018
DT/OT/FOT&E Tests	1	2012	2	2012
APB Deliveries	1	2012	4	2012
Tech Insertions	2	2012	2	2015
Installation Periods	1	2012	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0742: *Sub Integrated Ant System*	223.690	24.202	18.395	18.777	-	18.777	14.276	28.534	24.546	15.169	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Submarine Integrated Antenna System project (0742) provides for the development and testing of submarine antennas designed to meet emerging submarine requirements of: (a) Improved frequency coverage and data rate capabilities of submarine antennas and their interface to the External Communications System, (b) Improved submarine antenna performance and data rate while the submarine is operating at speed and depth, (c) Antenna compatibility with new waveforms and transceiver equipment, (d) Improved stealth capability of existing and future antennas and (e) Improved antenna design to reduce Total Ownership Cost.
This project funds research and development for submarine antennas including (1) Pre-Planned Product Improvement (P3I) efforts to existing antennas including Outboard Electronics (OE)-538/BRC Multi-Function Antenna, (2) OE-562 Submarine, High Data Rate (SubHDR) system development of components for reliability improvements, (3) Development of new systems including Advanced High Data Rate (AdvHDR), (4) Commence support of Submarine Communications Buoy (SCB) Project Arrangement with United Kingdom (UK), and (5) Towed Buoy Antenna (AN/BRR-6/6B) system development of components for reliability improvements. The efforts listed above will provide Ship Submersible Nuclear (SSN), Ship Submersible Ballistic Nuclear (SSBN) and Ship Submersible Guided Nuclear (SSGN) platforms with improved communications capabilities to support future Joint, Allied, and Naval operations.

JUSTIFICATION FOR BUDGET ACTIVITY:
This project is funded under ENGINEERING AND MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.
Notes/Comments:
FY14 OE-538: Complete Operational Assessment (OA), complete development/update of required Milestone C acquisition documents.
FY14 SubHDR: Continue development of components identified by research and analysis. Complete UNDEX development and testing.
FY14 Advanced High Data Rate (AdvHDR): Complete risk mitigation demonstrations and technology maturation efforts towards technology readiness assessments in preparation of Advanced Development Model (ADM) Demonstration. Complete ADM demonstration.
FY14 Submarine Communications Buoy (SCB): Continue support for SCB Project Arrangement with United Kingdom and continue providing program, contract, and system engineering management support for Submarine Communications Buoy.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Antenna Transition Engineering	6.944	4.096	4.227
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: - Continued to provide emerging requirements and satellite communications (SATCOM) database/link analysis for other development programs in support of current & future communication architectures. - Continued Pre-Planned Product Improvement (P3I) investigation and development efforts towards legacy antenna systems. - Continued concept engineering, new technology evaluations, and assessments in support of current and future submarine antenna applications, to include HM&E interfaces. - Continued to investigate multiple usage antennas, including antennas that can be used for communications and other functions. - Commenced BRR-6 component design specification/modification for reliability improvements. - Commenced BRR-6 component development and testing for reliability improvements. ***FY 2013 Plans:*** - Continue to provide emerging requirements and SATCOM database/link analysis for other development programs in support of current & future communication architectures. - Continue P3I investigation and development efforts towards legacy antenna systems. - Continue concept engineering, new technology evaluations, and assessments in support of current and future undersea antenna applications, to include HM&E interfaces. - Continue to investigate multiple usage antennas, including antennas that can be used for communications and other functions. ***FY 2014 Plans:*** - Continue to provide emerging requirements and SATCOM database/link analysis for other development programs in support of current & future communication architectures. - Continue P3I investigation and development efforts towards legacy antenna systems. - Continue concept engineering, new technology evaluations, and assessments in support of current and future undersea antenna applications, to include HM&E interfaces. - Continue to investigate multiple usage antennas, including antennas that can be used for communications and other functions.			
Title: Outboard Electronics (OE)-538	7.652	3.972	4.180
Articles:	0	0	0
FY 2012 Accomplishments: - Continued Increment 2 system design, manufacture & testing of Engineering Design Model (EDM) to validate the design supports Fleet requirements (MUOS/Link-16/Iridium). - Continued Capabilities Production Document (CPD) and applicable Integrated Logistics Support (ILS) documentation to support Low-Rate Initial Production (LRIP) decision.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Continued development/update of required Milestone C acquisition documents. ***FY 2013 Plans:*** - Complete Increment 2 system design, manufacture and testing of EDM. - Complete CPD and continue applicable ILS documentation to support LRIP decision. - Continue development/update of required Milestone C acquisition documents. - Complete Developmental Test (DT). ***FY 2014 Plans:*** - Complete applicable ILS documentation to support LRIP decision. - Complete development/update of required Milestone C acquisition documents. - Complete Operational Assessment (OA).			
Title: Submarine High Data Rate (SubHDR) Pre-Planned Product Improvement (P3I)	3.557	5.151	3.937
Articles:	0	0	0
FY 2012 Accomplishments: - Continued Underwater Explosion (UNDEX) development and testing. - Completed research and analysis on SubHDR components to increase performance reliability. - Commenced development of components identified by research and analysis for performance reliability improvements. ***FY 2013 Plans:*** - Continue development of components identified by research and analysis for performance reliability improvements. - Continue UNDEX development and testing. ***FY 2014 Plans:*** - Continue development of components identified by research and analysis. - Complete UNDEX development and testing.			
Title: Advanced High Data Rate (AdvHDR)	3.208	2.634	1.489
Articles:	0	0	0
FY 2012 Accomplishments: - Continued design and acquisition documentation development in support of Milestone B. - Continued system definition/risk reduction and system development efforts based on risk mitigation hardware. - Continued technology maturation and demonstration efforts. - Continued system development engineering efforts. ***FY 2013 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Complete design and Capability Development Document (CDD) in support of Advanced Development Model (ADM) demonstration. - Continue system definition/risk reduction and system development efforts based on risk mitigation hardware. - Continue technology maturation. - Continue demonstration efforts. - Continue system development engineering efforts. ***FY 2014 Plans:*** - Complete system definition/risk reduction and system development efforts based on risk mitigation hardware. - Complete technology maturation. - Complete system development engineering efforts. - Complete demonstration for Advanced Development Model (ADM).			
Title: Towed Buoy Antenna (AN/BRR-6/6B)	0.000	0.000	2.674
Articles:			0
Description: AN/BRR-6/6B previously funded under Transition Engineering Project for development efforts and SAMS Program for procurement and sustainment efforts. ***FY 2014 Plans:*** - Commence support for BRR-6 Program providing program, contract, logistics, and system engineering management. - Commence component design specification/modification for reliability improvements. - Commence component development, system integration, and testing for reliability improvements.			
Title: Submarine Communications Buoy (SCB)	2.841	2.542	2.270
Articles:	0	0	0
Description: A project arrangement between the United States and the United Kingdom. ***FY 2012 Accomplishments:*** - Commenced support for SCB Project Arrangement with United Kingdom. - Commenced component design specification development of candidate SCB components. - Commenced development of demonstration plan for SCB components. - Commenced performance evaluation of the candidate SCB components. ***FY 2013 Plans:*** - Continue support for SCB Project Arrangement with United Kingdom. - Continue component design specification development of candidate SCB			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
components. - Continue development of demonstration plan for SCB components. - Continue performance evaluation of the candidate SCB components. ***FY 2014 Plans:*** - Continue support for SCB Project Arrangement with United Kingdom. - Continue component design specification development for candidate SCB components. - Continue development of demonstration plan for SCB components. - Continue performance evaluation of the candidate SCB components.			
Accomplishments/Planned Programs Subtotals	24.202	18.395	18.777

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• 313000: *Submarine Communications*	75.198	69.025	74.376		74.376	73.068	55.737	76.117	80.416	Continuing	Continuing

Remarks

D. Acquisition Strategy

Program Milestones (MS):
Outboard Electronics (OE)-538: 4th Quarter (QTR) FY14 Milestone C (MS C); 4th QTR FY16 Full Rate Production (FRP) Decision Review.
Advanced High Data Rate (AdvHDR): 4th QTR FY14 Advanced Development Model (ADM) Demonstration.

Test and Evaluation (T&E) Milestones:
OE-538: 4th QTR FY13 Developmental Test (DT) for MS C; 2nd QTR FY14 Operational Assessment (OA) for MS C; 2nd QTR FY16 DT for FRP; 3rd QTR FY16 Operational Test (OT) for FRP.

E. Performance Metrics

FY14 OE-538: Complete Milestone C Decision Review.
FY14 Submarine High Data Rate (SubHDR): Complete Underwater Explosion (UNDEX) development and testing.
FY14 AdvHDR: Complete Advanced Development Model (ADM) Demonstration.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Interface Dev (Submarine High Data Rate - SubHDR)	C/CPAF	Raytheon:Marlboro, MA	3.545	0.000		0.000		0.000		-		0.000	0.000	3.545	3.545
Digital Dev (SubHDR)	C/CPAF	Raytheon:Marlboro, MA	8.182	0.000		0.000		0.000		-		0.000	0.000	8.182	8.182
Hardware Dev (SubHDR)	WR	NUWC:Newport, RI	2.888	0.000		0.000		0.000		-		0.000	0.000	2.888	Continuing
Hardware Dev (SubHDR SHF/FOT)	C/CPAF	Raytheon:Marlboro, MA	14.632	0.000		0.000		0.000		-		0.000	0.000	14.632	14.632
Hardware Dev (Antenna Trans Eng)	C/CPAF	Sippican:Marion, MA	2.207	0.000		0.000		0.000		-		0.000	0.000	2.207	2.207
Hardware Dev (Communications at Speed and Depth - CSD)	C/CPAF	Apogen:San Diego, CA	2.800	0.000		0.000		0.000		-		0.000	0.000	2.800	2.800
Systems/Hardware Dev (CSD)	C/CPAF	Various:Various	36.623	0.000		0.000		0.000		-		0.000	0.000	36.623	Continuing
Systems/Hardware Dev (Submarine Communications Buoy - SCB)	WR	NSWC:Philadelphia	0.000	1.900	May 2012	2.316	Nov 2012	1.250	Nov 2013	-		1.250	Continuing	Continuing	Continuing
Hardware Dev (Outboard Electronics (OE)-538)	C/CPIF	Submarine Antenna Joint Venture:SAJV: MA and NH	17.564	1.170	Aug 2012	0.218	Mar 2013	1.000	May 2014	-		1.000	Continuing	Continuing	Continuing
Systems Engineering (OE-538)	WR	NUWC:Newport, RI	3.975	1.310	Jan 2012	1.258	Oct 2012	1.075	Oct 2013	-		1.075	Continuing	Continuing	Continuing
Systems Engineering (SubHDR)	C/CPFF	Raytheon:Marlboro, MA	6.316	0.000		0.000		0.000		-		0.000	0.000	6.316	6.316
System Engineering (SubHDR)	WR	NUWC:Newport, RI	15.807	0.354	Jan 2012	0.400	Dec 2012	0.400	Dec 2013	-		0.400	Continuing	Continuing	Continuing
Systems Engineering (Advanced High Data Rate - AdvHDR)	WR	NUWC:Newport, RI	6.412	0.800	Nov 2011	0.802	Nov 2012	0.432	Nov 2013	-		0.432	Continuing	Continuing	Continuing
System Engineering (Antenna Trans Eng)	WR	NUWC:Newport, RI	30.728	2.086	Nov 2011	2.813	Nov 2012	3.277	Nov 2013	-		3.277	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering (CSD)	Various	Various:Various	4.628	0.000		0.000		0.000		-		0.000	0.000	4.628	
System Engineering (CSD)	WR	SSC PAC:San Diego, CA	3.048	0.000		0.000		0.000		-		0.000	0.000	3.048	
Systems Engineering (SCB)	C/CPFF	FSI:San Diego, CA	0.000	0.550	Oct 2011	0.100	Oct 2012	0.250	Oct 2013	-		0.250	0.000	0.900	
Systems Engineering (CSD)	WR	NUWC:Newport, RI	18.521	0.000		0.000		0.000		-		0.000	0.000	18.521	Continuing
UNDEX Kit Development (SubHDR)	C/CPFF	Raytheon:Marlboro, MA	5.475	0.000		0.000		0.000		-		0.000	0.000	5.475	5.475
Technology Maturation/ Demonstrations Dev (Advanced High Data Rate - AdvHDR)	C/CPAF	NUWC:Newport, RI	7.671	0.799	Dec 2011	0.642	Dec 2012	0.524	Nov 2013	-		0.524	Continuing	Continuing	Continuing
Research and Analysis Reliability Dev (Submarine High Data Rate - SubHDR)	WR	NUWC:Newport, RI	1.329	2.818	Jan 2012	0.780	Dec 2012	0.600	Dec 2013	-		0.600	Continuing	Continuing	Continuing
Systems Engineering (AdvHDR)	WR	NUWC:Newport, RI	3.392	0.486	Nov 2011	0.468	Nov 2012	0.200	Nov 2013	-		0.200	Continuing	Continuing	Continuing
Systems Engineering (BRR-6)	C/CPFF	FSI:San Diego, CA	0.000	0.000		0.000		0.210	Oct 2013	-		0.210	0.000	0.210	
Hardware Dev (Antenna Trans Eng)	WR	NUWC:Newport, RI	0.000	0.185	Apr 2012	0.000		0.000		-		0.000	0.000	0.185	
Systems Engineering (Antenna Trans Eng)	WR	NSWC:Philadelphia, PA	0.000	1.932	Sep 2012	0.000		0.000		-		0.000	0.000	1.932	
Hardware (Antenna Trans Eng)	WR	NSWC:Philadelphia, PA	0.000	0.590	Apr 2012	0.000		0.000		-		0.000	0.000	0.590	
Systems Engineering/ Hardware Dev (BRR-6)	WR	NUWC:Newport, RI	0.000	0.000		0.000		1.142	Nov 2013	-		1.142	0.000	1.142	
Systems Engineering/ Hardware Dev (BRR-6)	WR	NSWC:Philadelphia, PA	0.000	0.000		0.000		1.032	Nov 2013	-		1.032	0.000	1.032	
Research and Analysis Reliability Dev (Submarine High Data Rate - SubHDR)	C/CPAF	TBD:TBD	0.000	0.000		3.356	Sep 2013	2.100	Sep 2014	-		2.100	0.000	5.456	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	195.743	14.980		13.153		13.492		0.000		13.492			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support (AdvHDR)	C/CPFF	Cambridge Intl:Arlington, VA	0.903	0.128	May 2012	0.103	Nov 2012	0.020	Nov 2013	-		0.020	Continuing	Continuing	Continuing
Integrated Logistics Support (Antenna Trans Eng)	C/CPFF	TCI:Fairfax, VA	0.050	0.000	May 2012	0.000		0.000		-		0.000	0.000	0.050	0.050
Integrated Logistics Support (Outboard Electronics - OE-538)	C/CPFF	Cambridge Intl:Arlington, VA	1.670	1.875	May 2012	0.276	Nov 2012	0.420	Nov 2013	-		0.420	Continuing	Continuing	Continuing
Integrated Logistics Support (Communications at Speed and Depth - CSD)	C/CPFF	TCI:Fairfax, VA	0.283	0.000	May 2012	0.000		0.000		-		0.000	0.000	0.283	
Cost Estimating(Submarine Communication Buoy - SCB)	C/CPFF	BAH:San Diego, CA	0.000	0.050	Oct 2011	0.025	Nov 2012	0.066	Nov 2013	-		0.066	0.000	0.141	
Acquisition Documentation (Various)	C/CPFF	Various:Various	1.132	0.000		0.000		0.000		-		0.000	0.000	1.132	1.132
Cost Estimating (BRR-6)	C/CPFF	BAH:San Diego, CA	0.000	0.000		0.000		0.030	Nov 2013	-		0.030	0.000	0.030	
Integrated logistics Support (BRR-6)	WR	NUWC:Newport, RI	0.000	0.000		0.000		0.100	Nov 2013	-		0.100	0.000	0.100	
		Subtotal	4.038	2.053		0.404		0.636		0.000		0.636			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation (Communication at Speed and Depth - CSD)	WR	COTF:Norfolk, VA	0.637	0.000		0.000		0.000		-		0.000	0.000	0.637	
Test & Evaluation (Outboard Electronics (OE)-538)	WR	COTF:Norfolk, VA	0.424	1.178	Jan 2012	0.117	Oct 2012	0.250	Oct 2013	-		0.250	Continuing	Continuing	Continuing
Test & Evaluation (Submarine High Data Rate - SubHDR)	WR	NUWC:Newport, RI	0.603	0.000		0.540	Dec 2012	0.500	Dec 2013	-		0.500	Continuing	Continuing	Continuing
Developmental/ Operational T&E (Advanced High Data Rate - AdvHDR)	WR	COTF:Norfolk, VA	0.065	0.022	Nov 2011	0.018	Nov 2012	0.018	Nov 2013	-		0.018	Continuing	Continuing	Continuing
Developmental/ Operational T&E (AdvHDR)	WR	NUWC:Newport, RI	0.605	0.115	Nov 2011	0.170	Nov 2012	0.170	Nov 2013	-		0.170	Continuing	Continuing	Continuing
Developmental/ Operational T&E (OE-538)	WR	NUWC:Newport, RI	0.616	2.425	Jan 2012	0.814	Oct 2012	0.735	Oct 2013	-		0.735	Continuing	Continuing	Continuing
Test & Evaluation (CSD)	WR	SSC PAC:San Diego, CA	2.497	0.000		0.000		0.000		-		0.000	0.000	2.497	
Test & Evaluation (SCB)	WR	NUWC:Newport, RI	0.000	0.214	Nov 2011	0.025	Nov 2012	0.535	Nov 2013	-		0.535	0.000	0.774	
		Subtotal	5.447	3.954		1.684		2.208		0.000		2.208			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support (SubHDR)	C/CPFF	CSA:San Diego, CA	2.042	0.477	Nov 2011	0.475	Nov 2012	0.337	Nov 2013	-		0.337	Continuing	Continuing	Continuing
Program Management Support (AdvHDR)	C/CPFF	CSA:San Diego, CA	6.191	0.941	Nov 2011	0.431	Nov 2012	0.125	Nov 2013	-		0.125	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support (Antenna Trans Eng)	C/CPFF	CSA:San Diego, CA	1.947	0.680	Nov 2011	0.884	Nov 2012	0.950	Nov 2013	-		0.950	Continuing	Continuing	Continuing
Program Management Support (CSD)	C/CPFF	CSA:San Diego, CA	4.819	0.000		0.000		0.000		-		0.000	0.000	4.819	
Program Management Support (Submarine Communications Buoy - SCB)	C/CPFF	CSA:San Diego, CA	0.000	0.200	Nov 2011	0.076	Nov 2012	0.169	Nov 2013	-		0.169	0.000	0.445	
Program Management Support (OE-538)	C/CPFF	CSA:San Diego, CA	3.183	0.917	Nov 2011	1.288	Nov 2012	0.700	Nov 2013	-		0.700	Continuing	Continuing	Continuing
Acquisition Workforce	Various	Various:Various	0.280	0.000		0.000		0.000		-		0.000	0.000	0.280	0.280
Program Management Support (BRR-6)	C/CPFF	CSA:San Diego, CA	0.000	0.000		0.000		0.160	Nov 2013	-		0.160	0.000	0.160	
		Subtotal	18.462	3.215		3.154		2.441		0.000		2.441			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	223.690	24.202		18.395		18.777		0.000		18.777			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

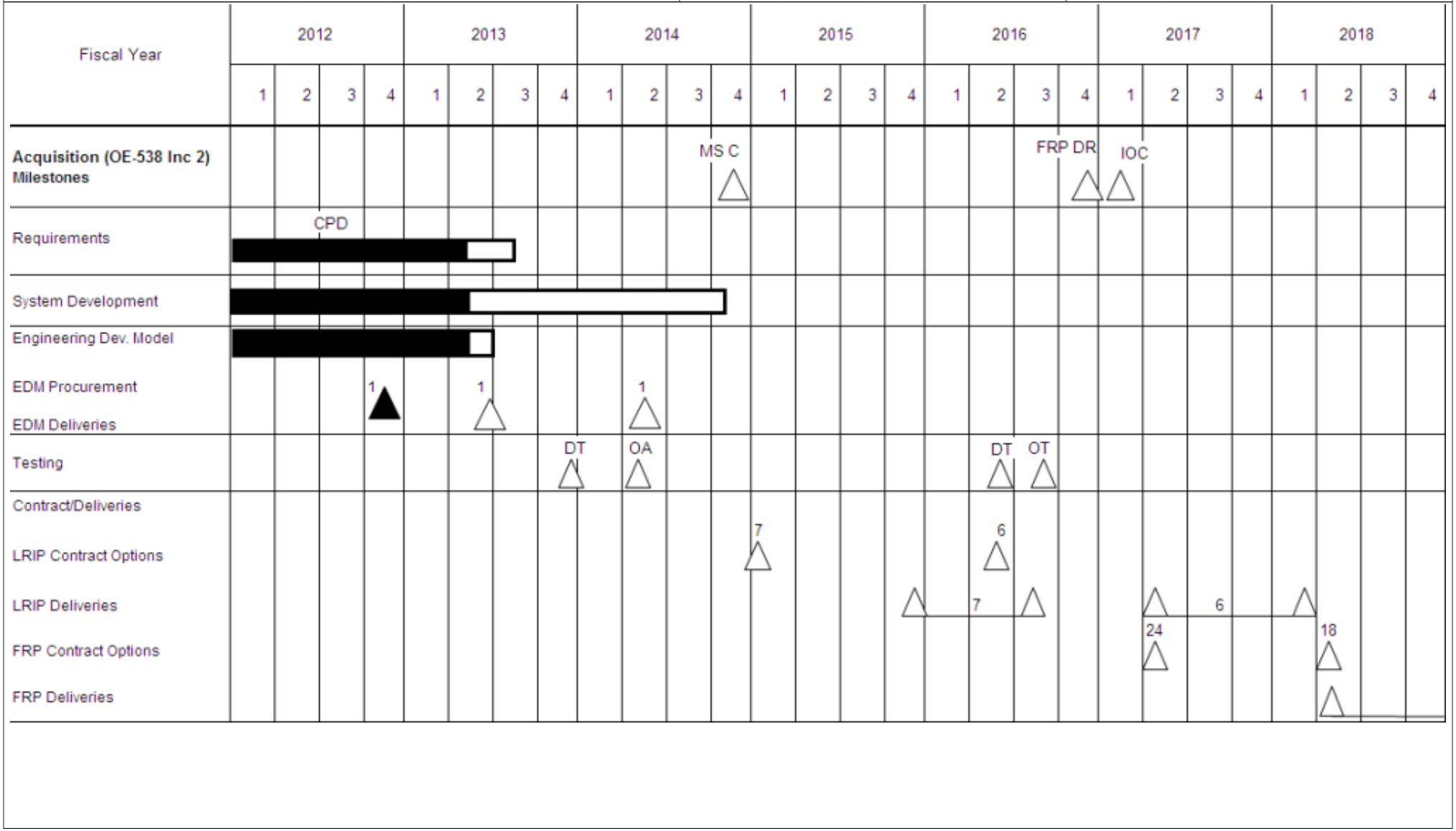


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

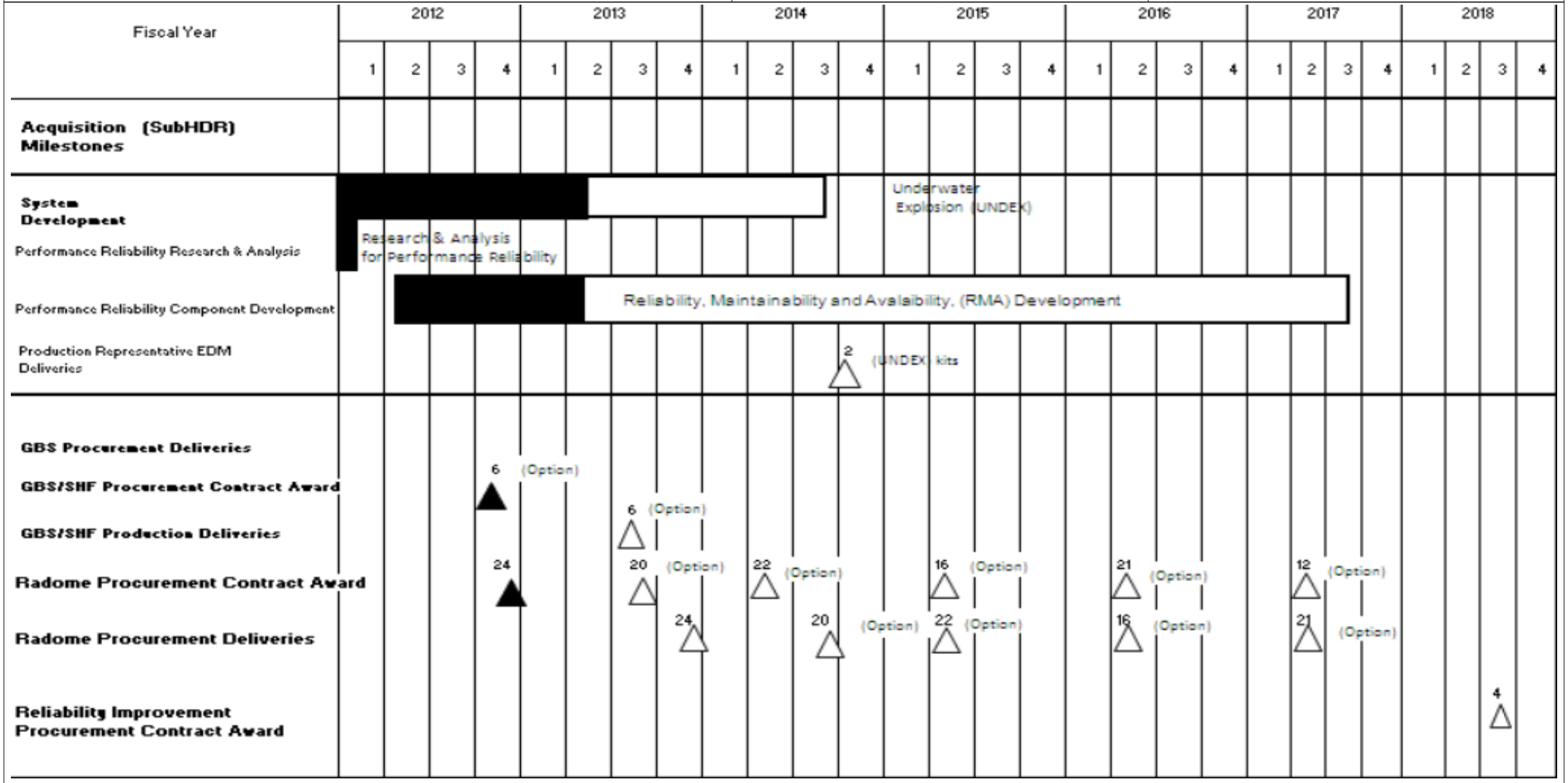


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

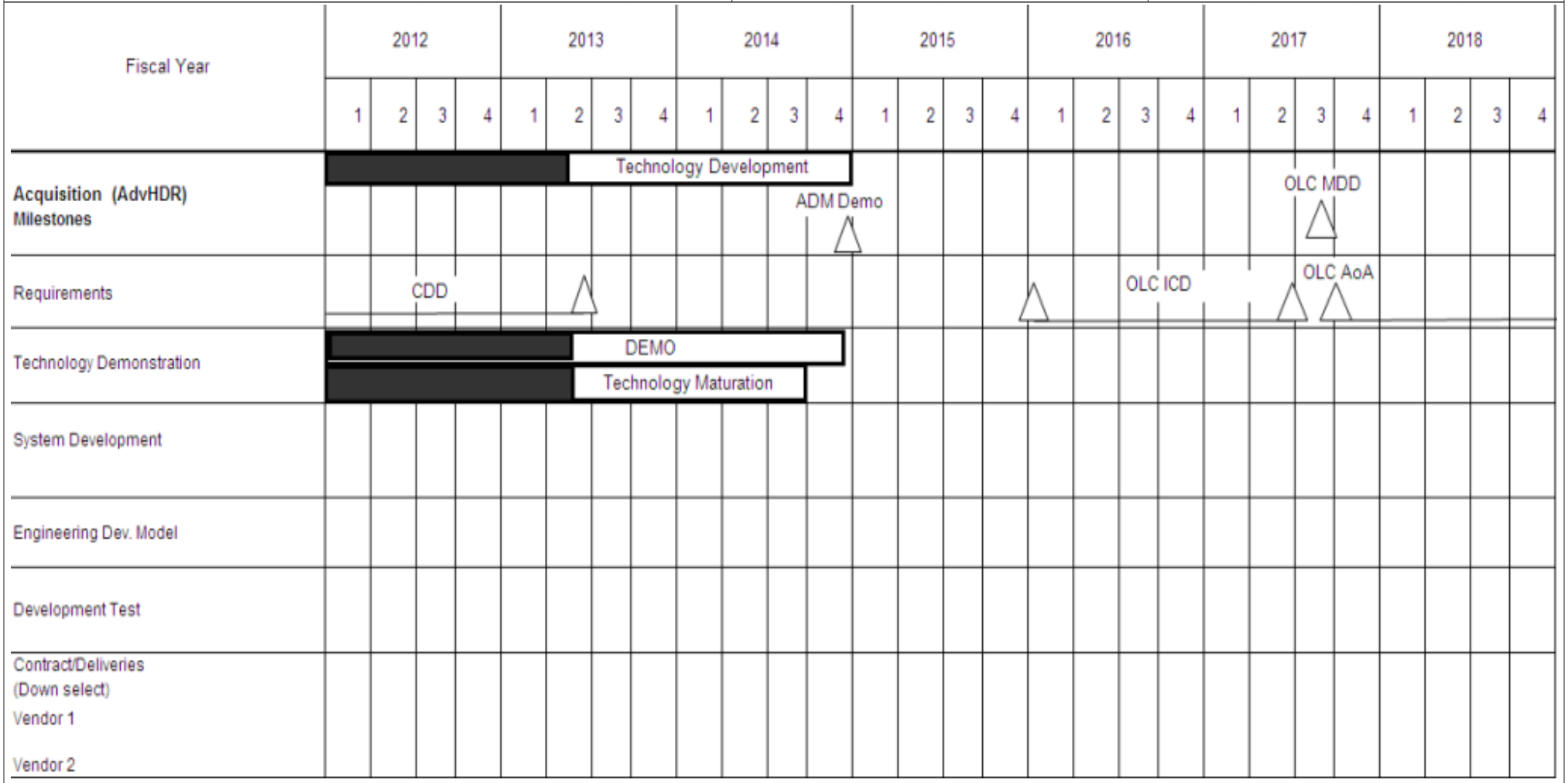


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

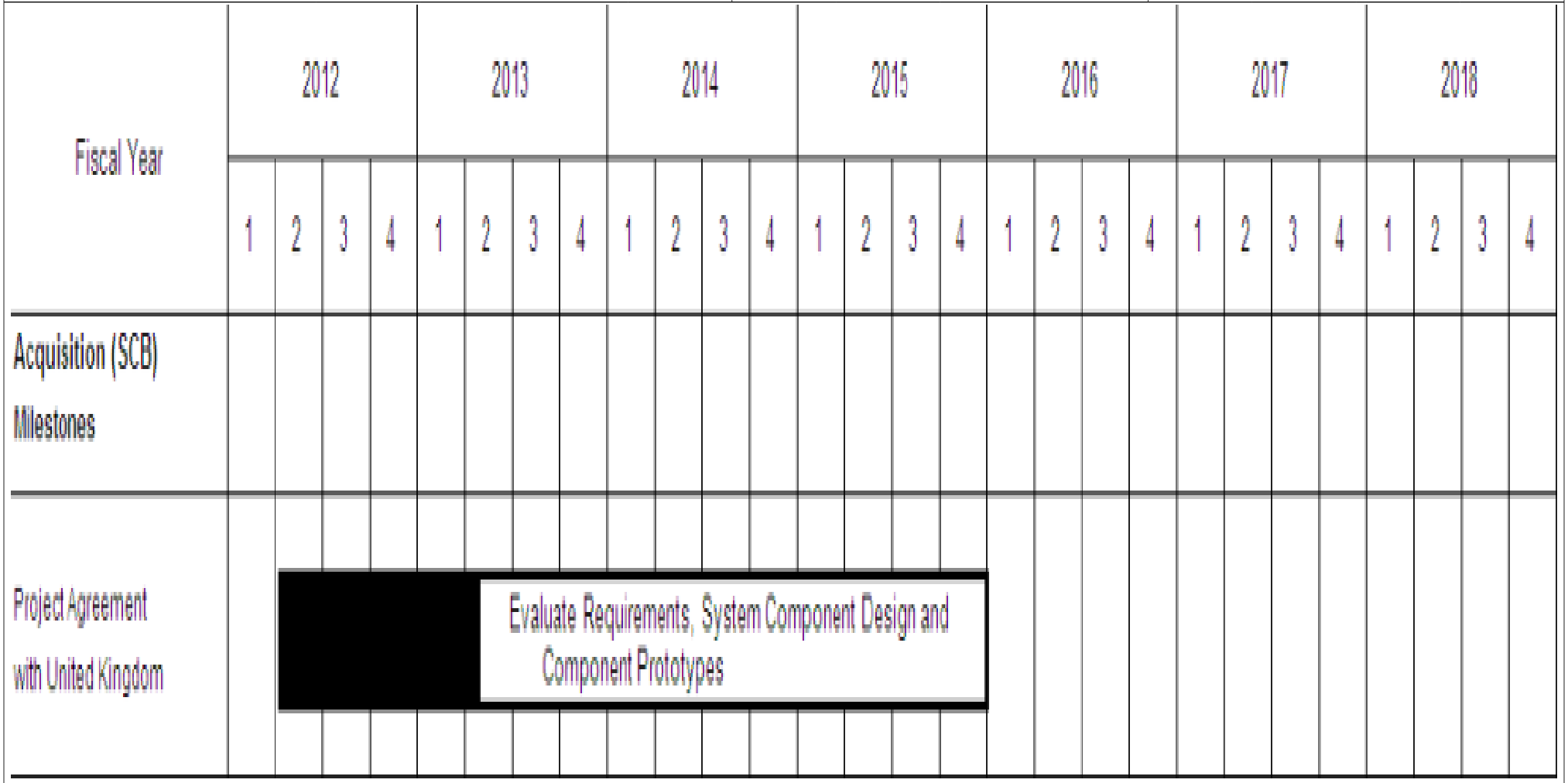


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

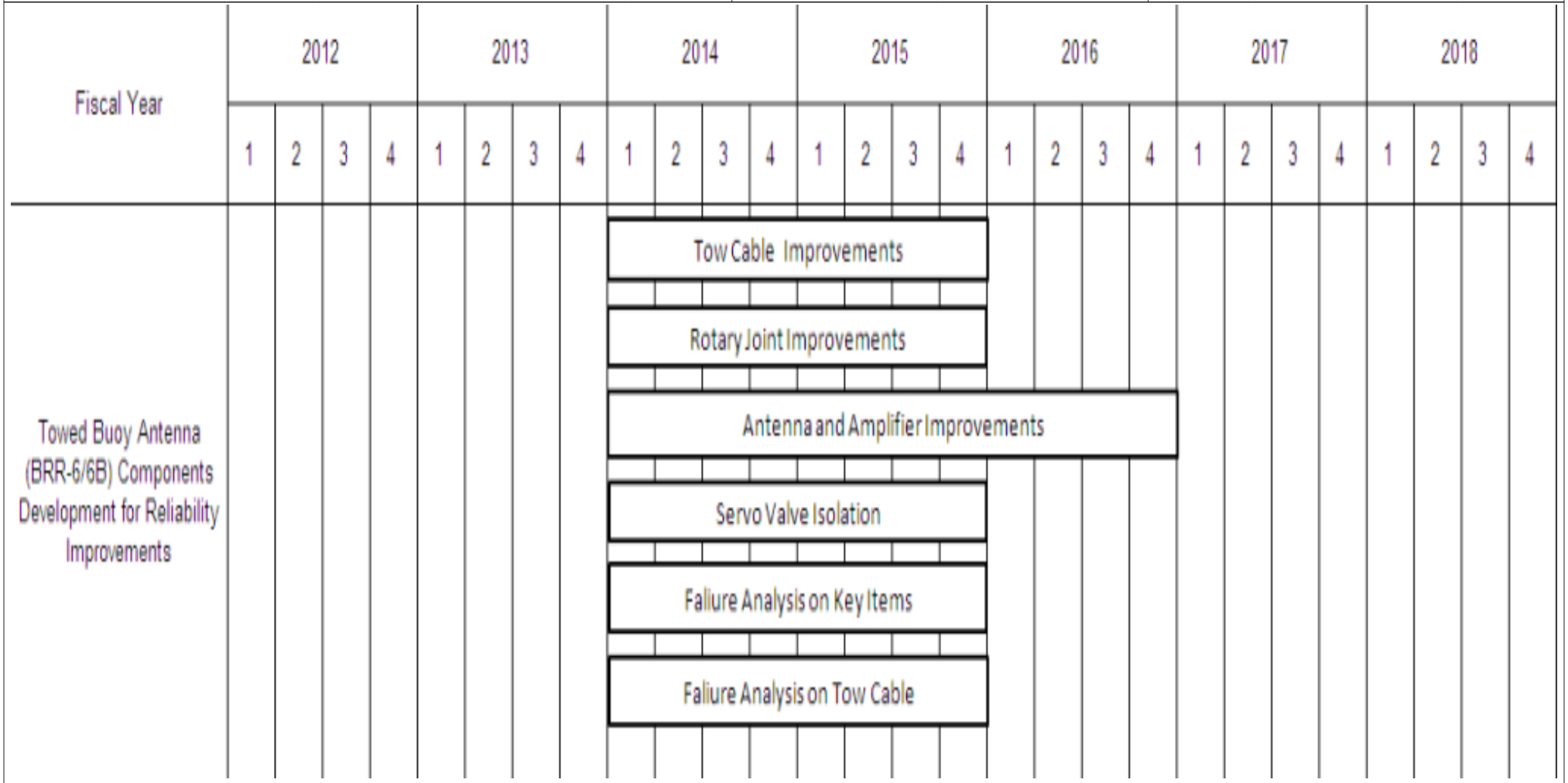


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0742				
Outboard Electronics (OE)-538 Milestone C (MS C) Decision	4	2014	4	2014
OE-538 Full Rate Production Decision Review (FRP DR)	4	2016	4	2016
OE-538 Initial Operational Capability (IOC)	1	2017	1	2017
OE-538 Capability Production Document (CPD)	1	2012	3	2013
OE-538 System Development	1	2012	4	2014
OE-538 Engineering Development Model (EDM)	1	2012	2	2013
OE-538 2nd EDM Procurement	4	2012	4	2012
OE-538 1st EDM Delivery	3	2013	3	2013
OE-538 2nd EDM Delivery	2	2014	2	2014
OE-538 Developmental Test (DT) for Milestone C (MS C)	4	2013	4	2013
OE-538 Operational Assessment (OA)	2	2014	2	2014
OE-538 DT for Full Rate Production (FRP)	2	2016	2	2016
OE-538 Operational Test (OT)	3	2016	3	2016
OE-538 Low-Rate Initial Production (LRIP) Contract Option Year 1	1	2015	1	2015
OE-538 LRIP Deliveries Year 1	4	2015	3	2016
OE-538 LRIP Contract Option Year 2	2	2016	2	2016
OE-538 LRIP Deliveries Year 2	2	2017	1	2018
OE-538 Full Rate Production (FRP) Contract Options Year 1	2	2017	2	2017
OE-538 FRP Contract Options Year 2	2	2018	2	2018
OE-538 FRP Deliveries Year 1	2	2018	4	2018
Submarine High Data Rate (SubHDR) Under Water Explosion (UNDEX) Development	1	2012	3	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0742: *Sub Integrated Ant System*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SubHDR Research & Analysis for Performance Reliability	1	2012	1	2012
SubHDR Performance Reliability Component Development/Test	2	2012	3	2017
SubHDR Production Representative Engineering Development Model (EDM) Deliveries	4	2014	4	2014
SubHDR GBS/SHF Procurement Contract Award	4	2012	4	2012
SubHDR GBS/SHF Production Deliveries	3	2013	3	2013
SubHDR Radome Procurement Contract Awards	4	2012	2	2017
SubHDR Radome Production Deliveries	4	2013	2	2017
SubHDR Reliability Procurement Contract Award	3	2018	3	2018
Advanced High Data Rate (AdvHDR) Technology Development	1	2012	4	2014
AdvHDR Advanced Development Model (ADM) Demonstration	4	2014	4	2014
AdvHDR Material Development Decision (MDD) Optical Laser Communications (OLC)	3	2017	3	2017
AdvHDR Capabilities Development Document (CDD)	1	2012	2	2013
AdvHDR Initial Capability Document (ICD) for OLC	1	2016	2	2017
AdvHDR Analysis of Alternative (AoA) for OLC	4	2017	4	2018
AdvHDR Demonstration (DEMO)	1	2012	4	2014
AdvHDR Technology Maturation	1	2012	3	2014
SCB Project arrangement with United Kingdom (UK)	2	2012	4	2015
Towed Buoy Antenna (BRR-6/6B) Towed Cable Improvements	1	2014	4	2015
BRR-6/6B Rotary Joint Improvement	1	2014	4	2015
BRR-6/6B Antenna and Amplifier Improvements	1	2014	4	2016
BRR-6/6B Server Valve	1	2014	4	2015
BRR-6/6B Failure Analysis on Key Items	1	2014	4	2015
BRR-6/6B Failure Analysis on Tow Cable	1	2014	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0775: *Submarine Supt Equip Prog*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0775: *Submarine Supt Equip Prog*	5.775	1.241	1.297	1.318	-	1.318	1.363	1.395	1.422	1.445	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Submarine Support Equipment Program develops and improves techniques, components, equipment, and systems that will increase submarine operational effectiveness, safety of ship, and survivability in the increasingly dense and sophisticated electromagnetic environment caused by the proliferation of complex radar, communications, and navigation equipment of potential adversaries. Improvements are necessary for Submarine Electronic Warfare Support (EW) systems to be operationally effective in the following mission areas: Joint Littoral Warfare; Joint Intelligence Surveillance Recognizance (ISR), Indications and Warnings; Electronic Warfare, Information Operations, Special Operations, and Force (SOF) Support. Efforts include: (1) Integration the technology developed and transitioned from the Advanced Submarine Support Equipment Program (ASSEP), project 0770, into the tactical EW system; (2) Resolution of software trouble reports during technology updates, from fleet feedback reports, and Submarine Warfare Federated Tactical System (SWFTS)/Non Propulsion Electronic System (NPES) Tactical Local Area Network (TACLAN) migrations; (3) Integration, test, and installation of COTS technology for system enhancements.
The Electronic Warfare (EW) Development Projects include the development of: Distant EW Support and Remote Log-In, Capability and Technical Initiatives, next generation processes, architecture and radar wideband miniaturization. OPNAV direction provided for Next Generation EW in reference dated 17 June 12, SER N97/12U144401.

RDTE Funding line supports the entire AN/BLQ-10 EW procurement program. Average FY OPN and SCN hardware procurement yearly funds are $100M.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Submarine Support Equipment Program	1.241	1.297	1.318
Articles:	0	0	0
FY 2012 Accomplishments: Updated AN/BLQ-10 software baseline changes for SWFTS and NPES. Researched, tested and integrated technical insertion upgrades to the AN/BLQ-10 system. Tested the next generation of technical insertion processors. Initiated integration and testing of TI-APB 11.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0775: *Submarine Supt Equip Prog*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Update AN/BLQ-10 software baseline changes for SWFTS and NPES. SPR Resolution, and Software Enhancement. Develop, integrate and test TI-14 Processor Upgrades, Remote Log-In, Rapid Reprogramming of Threat Libraries, and ES Server Correlator. Finish integration and testing of TI-APB-11. ***FY 2014 Plans:*** Update AN/BLQ-10 software baseline changes for SWFTS and NPES. Research, test and integrate technical insertion upgrades to the AN/BLQ-10 system. Test the next generation of technical insertion processors. Commence integration and testing of TI-APB 13.			
Accomplishments/Planned Programs Subtotals	1.241	1.297	1.318

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/256000: *Submarine Supt Equip Prog*	82.241	34.050	49.475		49.475	53.134	61.977	72.126	73.261	Continuing	Continuing
• SCN/201300: *VIRGINIA Class Submarine*	53.896	54.974	27.706		27.706	56.512	57.650	58.821	60.015	Continuing	Continuing
• RDT&E/0604558N: *Submarine Tactical Warfare System*	1.500	1.300	1.500		1.500	1.500	1.500	1.500	1.526	Continuing	Continuing

Remarks

D. Acquisition Strategy

AN/BLQ-10 (V) EW System - Procurements are executed/managed in accordance with the Acquisition Strategy Report (Rev 6) for AN/BLQ-10(V) EW System dtd 12/14/09 and the Acquisition Plan (Rev 8) for AN/BLQ-10(V) EW System dtd 12/15/09.

E. Performance Metrics

The RDD program goal is to respond to urgent operational needs within 30 days and provide for rapid development and fielding of prototype solutions within 270 days.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0775: *Submarine Supt Equip Prog*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/BLQ-10 EW Product Development	C/CPFF	Various Contractors:Not Specified	2.867	0.130	Mar 2012	0.130	Mar 2013	0.135	Mar 2014	-		0.135	Continuing	Continuing	Continuing
Systems Engineering & Test Support	WR	NUWC:Newport, RI	2.192	0.881	Oct 2011	1.167	Oct 2012	1.183	Oct 2013	-		1.183	Continuing	Continuing	Continuing
Systems Engineering & Test Support	C/CPAF	TBD:Not Specified	0.369	0.225	Mar 2012	0.000		0.000		-		0.000	0.000	0.594	
		Subtotal	5.428	1.236		1.297		1.318		0.000		1.318			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	NAVSEA:WNY	0.347	0.005	Mar 2012	0.000		0.000		-		0.000	0.000	0.352	
		Subtotal	0.347	0.005		0.000		0.000		0.000		0.000	0.000	0.352	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.775	1.241		1.297		1.318		0.000		1.318			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0775: *Submarine Supt Equip Prog*

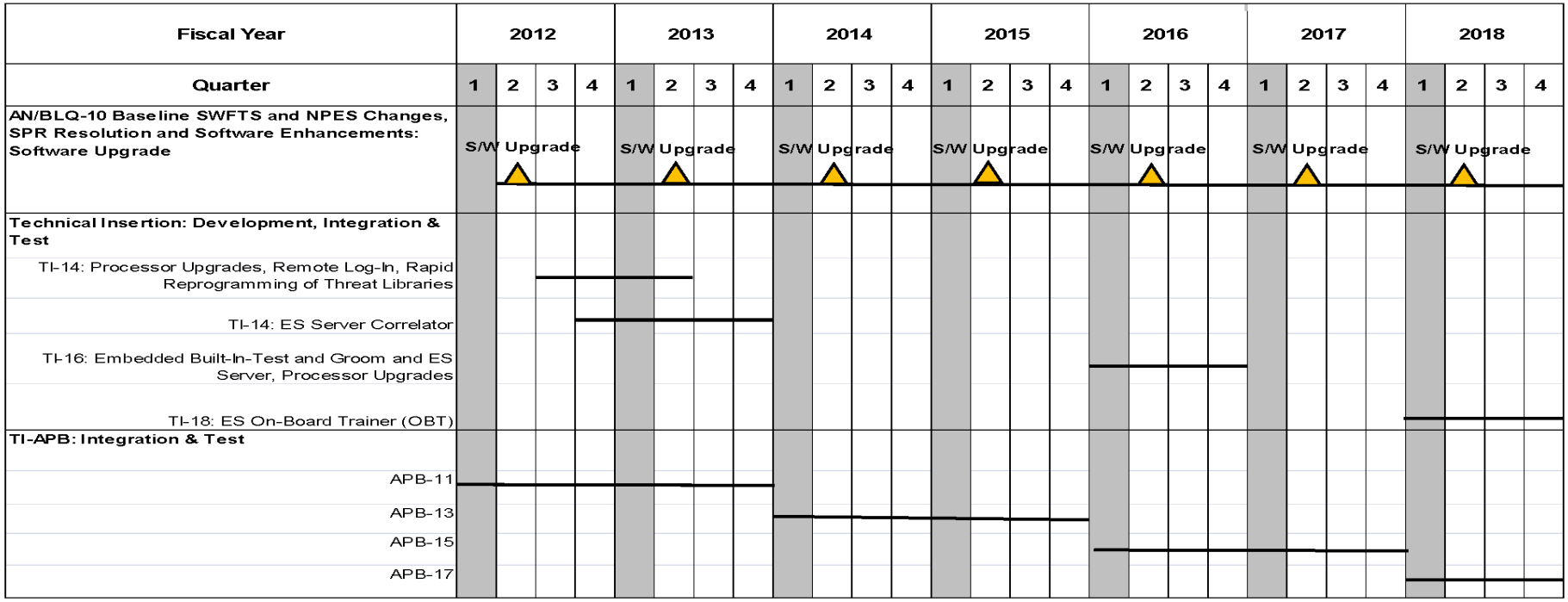


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604503N: *SSN-688 & Trident Modernization*	**PROJECT** 0775: *Submarine Supt Equip Prog*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0775				
AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: Software Update FY12	2	2012	2	2012
AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: Software Update FY13	2	2013	2	2013
AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: Software Update FY14	2	2014	2	2014
AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: Software Update FY15	2	2015	2	2015
AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: Software Update FY16	2	2016	2	2016
AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: Software Update FY17	2	2017	2	2017
AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: AN/BLQ-10 Baseline Changes, SPR Resolution, and Software Enhancement: Software Update FY18	2	2018	2	2018
TI: Development, Integration & Test: TI-14: Processor Upgrades, Remote Log-In, Rapid Reprom. of Threat Libraries	3	2012	3	2013
TI: Development, Integration & Test: TI-14: ES Server Correlator	4	2012	4	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 0775: *Submarine Supt Equip Prog*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TI: Development, Integration & Test: TI-16: Embedded BIT & Groom & ES Server Processor Upgrades	3	2015	2	2016
TI: Development, Integration & Test: TI-18: ES On-Board Trainer, Next Generation Architecture	3	2017	2	2018
TI-APB: Integration & Test: APB-11	1	2012	4	2013
TI-APB: Integration & Test: APB-13	1	2014	4	2015
TI-APB: Integration & Test: APB-15	1	2016	4	2017
TI-APB: Integration & Test: APB-17	1	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 1411: *Sub Tact Comm System*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1411: *Sub Tact Comm System*	166.048	11.541	9.093	13.903	-	13.903	9.853	11.481	11.731	11.890	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Common Submarine Radio Room (CSRR) transforms LOS ANGELES, OHIO and SEAWOLF Class radio rooms from suites of class-specific, closed system equipment to a common design which incorporates Open System Architecture communications equipment. CSRR will leverage VIRGINIA Class Exterior Communications System (ECS) design, utilize VIRGINIA Class ECS Control and Management software, apply a systems approach to design and implementation of Joint Maritime Communication System, and maximize use of Commercial Off-the-Shelf (COTS) products and emerging technologies. The Submarine Tactical Communications System project (1411) provides submarines with communications systems designed to: (a) enhance data throughout the automation and integrated network management; (b) convert to ForceNet and tactical data networks; (c) provide submarine Internet Protocol (IP) connectivity; (d) be interoperable with other joint United States and combined allied military networks; and (e) improve reliability, maintainability, and availability. This is accomplished by providing the submarine with a properly integrated mix of fully interoperable Navy standard and COTS communication equipment covering a wide range of frequencies and modes. The Common Submarine Radio Room (CSRR) integrates COTS and Government Off-The-Shelf components into a single radio room configuration for all classes of submarines. CSRR leverages and continues the development of VIRGINIA Class ECS which includes Open Systems Architecture design. The project utilizes land-based integration test facilities to integrate C41 program of record components into the open architecture prior to fleet implementation on all submarine platforms. This project funds the development of a replacement Simulation/Stimulation suite to support testing and training requirements. The project includes system engineering efforts associated with demonstration of new technology which will allow submarines to connect to the global information grid and participate in strike groups, as well as joint operations. The new technology will ensure the submarine's continued ability to participate in network-centric warfare and exploit its inherent stealth capabilities in support of the joint and combined fight to achieve total battlespace dominance.

JUSTIFICATION FOR BUDGET ACTIVITY:

This program is funded under ENGINEERING and MANUFACTURING DEVELOPMENT because it encompasses development and demonstration of new end-items prior to production approval decision.

Funding in FY14 is to complete CSRR modernization of Increment 1 Version 3 for SEAWOLF and Ship Submersible Ballistic Nuclear (SSBN) class submarines. Commence Inc 1 Ver 3 SSBN Operator Multi-Purpose Reconfigurable Training System (MRTS) software development. Conduct Inc 1 Ver 3 Operational Test (OT) test deferrals, Special Operations Force (SOF) testing and Verification of Correction of Deficiencies (VCD) testing defined in the Inc 1 Ver 3 OT report. Conduct required Inc 1 Ver 3 SSBN Emergency Action Message (EAM) certification testing, data analysis and Targeting Change Message (TCM) testing. Correct Inc 1 Ver 3 cable management plan design deficiencies identified on all Inc 1 Ver 3 platforms in the Departure From Specification (DFS) documentation. Commence Federal Information System Management Act (FISMA) statutory requirement for cyber security compliance and correction of Inc 1 Ver 1 - Ver 3 cyber security deficiencies. Commence

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 1411: *Sub Tact Comm System*

Increment 1 Version 4 systems engineering development and platform specific builds of Control & Management software incorporating Inc 1 Ver 4 capabilities. Commence development of the MRTS software for Inc 1 Ver 4 capabilities.

Acquisition Decision Memorandum signed by Assistant Secretary of Navy for Research, Development & Acquisition dated 15 July 2008 approved consolidating Increments 1 and 2 to a single Increment 1 with multiple block upgrades (Versions).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Common Submarine Radio Room (CSRR)	11.541	9.093	13.903
Articles:	0	0	0

FY 2012 Accomplishments:
- Continued Multi-Purpose Reconfigurable Training System (MRTS) software upgrade for Increment 1 Version 3 CSRR baseline for LOS ANGELES operator and VIRGINIA maintenance trainer.
- Continued implementation of Increment 1 Version 3 security upgrades and meet Information Assurance, Information Security and multiple levels of certification requirements for General Service and Sensitive Compartmented Information for all CSRR platforms.
- Completed CSRR modernization of Increment 1 Version 3 for VIRGINIA and continued modernization on the SEAWOLF and SSGN class submarines.
- Supported Follow-on Operational Test & Evaluation (FOT&E) of the CSRR Increment 1 Version 3 baseline on LOS ANGELES platform.
- Commenced CSRR systems engineering development for modernization of Increment 1 Version 3 for SSBN class submarines.
- Continued LOS ANGELES, VIRGINIA and SSGN Increment 1 Version 3 modernization and upgrade of Control and Management software due to End of Life (EOL) issues due to Commercial Off-the-Shelf equipment obsolescence.
- Commenced development of the Increment 1 Version 3 Control and Management software for SEAWOLF and SSBN capabilities and provide platform specific builds.

FY 2013 Plans:
- Complete Multi-Purpose Reconfigurable Training System (MRTS) software upgrade for Increment 1 Version 3 CSRR baseline for LOS ANGELES operator and VIRGINIA maintenance trainer.
- Continue implementation of Increment 1 Version 3 security upgrades and meet Information Assurance, Information Security and multiple levels of certification requirements for General Service and Sensitive Compartmented Information for all CSRR platforms.
- Complete CSRR systems engineering and modernization of Increment 1 Version 3 for SSGN and continue systems engineering and modernization for SEAWOLF and SSBN class submarines.
- Complete Follow-on Operational Test & Evaluation (FOT&E) of the CSRR Increment 1 Version 3 baseline on the LOS ANGELES platform.
- Complete VIRGINIA, LOS ANGELES, and SSGN Increment 1 Version 3 upgrade of Control and Management software baseline.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 1411: *Sub Tact Comm System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Continue development for platform specific builds of Control & Management software Increment 1 Version 3 capabilities for VIRGINIA, LOS ANGELES, SEAWOLF, SSGN and SSBN incorporating End of Life (EOL) issues due to equipment obsolescence. - Continue development of platform specific builds of Increment 1 Version 3 Control and Management software for SEAWOLF and SSBN capabilities.			
FY 2014 Plans: - Complete CSRR systems engineering development for modernization of Increment 1 Version 3 for SSBN and SEAWOLF class submarines. - Complete development of platform specific builds of Increment 1 Version 3 Control and Management software for SEAWOLF and SSBN capabilities. - Complete implementation of Increment 1 Version 3 security upgrades and meet Information Assurance, Information Security and multiple levels of certification requirements for General Service and Sensitive Compartmented Information for all CSRR platforms. - Commence Federal Information System Management Act (FISMA) statutory requirement for cyber security compliance and correction of Inc 1 Ver 1 - Ver 3 cyber security deficiencies. - Continue development of platform specific builds of Control & Management software Increment 1 Version 3 capabilities for VIRGINIA, LOS ANGELES, SEAWOLF, SSGN and SSBN incorporating End of Life (EOL) issues due to equipment obsolescence. - Commence Multi-Purpose Reconfigurable Training System (MRTS) software upgrade for Increment 1 Version 3 CSRR baseline for SSBN operator trainer. Conduct Inc 1 Ver 3 OT test deferrals, SOF testing and Verification of Correction of Deficiencies (VCD) testing defined in the Inc 1 Ver 3 OT report. Conduct required Inc 1 Ver 3 SSBN Emergency Action Message (EAM) certification testing and data analysis and Targeting Change Message (TCM) testing. Correct Inc 1 Ver 3 cable management plan design deficiencies identified on all Inc 1 Ver 3 platforms in the Departure From Specification (DFS) documentation. - Commence implementation of Increment 1 Version 4 security upgrades and meet Information Assurance, Information Security and multiple levels of certification requirements for General Service and Sensitive Compartmented Information for all CSRR platforms. - Commence MRTS software upgrade for Increment 1 Version 4 CSRR baseline for LOS ANGELES and SSBN operator trainer and VIRGINIA maintenance trainer. - Commence CSRR Increment 1 Version 4 system engineering development and modernization for the LOS ANGELES, SSBN and VIRGINIA class submarines. - Commence development of platform specific builds of Increment 1 Version 4 Control and Management software for LOS ANGELES, SSBN and VIRGINIA capabilities.			
Accomplishments/Planned Programs Subtotals	11.541	9.093	13.903

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 1411: *Sub Tact Comm System*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• 313000: *Submarine Communications*	75.198	69.025	74.376		74.376	73.068	55.737	76.117	80.416	Continuing	Continuing

Remarks

D. Acquisition Strategy

Common Submarine Radio Room (CSRR) transforms LOS ANGELES, OHIO, VIRGINIA and SEAWOLF Class radio rooms from suites of class-specific, closed system equipment to a common design which incorporates Open System Architecture (OSA). CSRR applies a systems approach to design and implementation of Joint Maritime Communication System (JMCOMS), and maximize use of Commercial Off-the-Shelf (COTS) products and emerging technologies. Program Milestones: Increment 1 Version 3 Developmental Test & Evaluation (DT) scheduled 3Q FY12, Follow-on Test & Evaluation (FOT&E) 4Q FY12 on a LOS ANGELES platform. Increment 1 Version 3 Fielding Decision 3Q FY13. Increment 1 Version 3 OT test deferrals 3QFY14. Increment 1 Version 4 Preliminary Design Review (PDR) 2Q FY14, Critical Design Review (CDR) 2Q FY15, DT 3Q FY16, FOT&E 4Q FY16, Fielding Decision 1Q FY17.

E. Performance Metrics

FY12-FY14 Common Submarine Radio Room (CSRR) reduces the overall cost for implementation of Command, Control, Communications Computer, Intelligence (C41) Programs of Record (POR) components into the submarine external communications system by implementing block upgrades and reducing the integration/ installation costs. The amount of RDT&E funding is dependent on the number of baselines being integrated and tested in any given year.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 1411: *Sub Tact Comm System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Development	C/CPFF	SSC PAC:San Diego, CA	2.776	0.000		0.000		0.000		-		0.000	0.000	2.776	2.776
Hardware Development	C/CPFF	SSC LANT:Charleston, SC	0.211	0.220	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Multi-Crypto System (MCS) Development	C/CPFF	Motorola:Scottsdale, Arizona	10.214	0.000		0.000		0.000		-		0.000	0.000	10.214	10.214
Software Development	WR	SSC PAC:San Diego, CA	2.068	0.000		0.000		0.000		-		0.000	0.000	2.068	2.068
Software Development	WR	NUWC:Newport, RI	5.498	0.354	Nov 2011	0.000		0.000		-		0.000	0.000	5.852	5.852
Multi-Purpose Reconfigurable Training System (MRTS) Development	C/CPFF	NAVAIR:Orlando, FL	15.037	0.969	Jan 2012	1.421	Jan 2013	1.726	Jan 2014	-		1.726	Continuing	Continuing	Continuing
Systems Engineering	WR	NUWC:Newport, RI	33.041	2.916	Nov 2011	3.463	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Eng/Design Version 4	WR	NUWC:Newport, RI	7.084	0.000		0.000		6.184	Nov 2013	-		6.184	Continuing	Continuing	Continuing
Site Platform Integration/ Certification	WR	NUWC:Newport, RI	12.117	0.434	Nov 2011	0.127	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Broadcast Control Authority/Operational Control (BCA/OPCON) architecture	WR	NUWC:Newport, RI	3.683	0.000		0.000		0.000		-		0.000	0.000	3.683	3.683
Software Development (CSRR)	C/CPAF	Lockheed Martin:Eagan, MN	30.978	2.944	Dec 2011	2.384	Nov 2012	0.000		-		0.000	0.000	36.306	36.306
Software Development (CSRR)	TBD	TBD:TBD	0.000	0.000		0.000		3.699	Nov 2013	-		3.699	Continuing	Continuing	Continuing
		Subtotal	122.707	7.837		7.395		11.609		0.000		11.609			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 1411: *Sub Tact Comm System*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	NUWC:Newport, RI	3.071	0.330	Dec 2011	0.000		0.225	Nov 2013	-		0.225	Continuing	Continuing	Continuing
Software Engineering	WR	SSC PAC:San Diego, CA	2.969	0.239	Nov 2011	0.125	Nov 2012	0.285	Nov 2013	-		0.285	Continuing	Continuing	Continuing
Information Security/ Information Assurance (INFOSEC/IA) Certification	WR	SSC PAC/SSC LANT:San Diego, CA/Charleston, SC	18.128	1.123	Nov 2011	1.087	Nov 2012	1.438	Nov 2013	-		1.438	Continuing	Continuing	Continuing
		Subtotal	24.168	1.692		1.212		1.948		0.000		1.948			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental/ Operational Test and Evaluation (T&E)	C/CPFF	COTF, JITC:Various	9.283	1.406	Dec 2011	0.486	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	9.283	1.406		0.486		0.000		0.000		0.000			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	CSA:San Diego, CA	9.890	0.606	Nov 2011	0.000		0.346	Nov 2013	-		0.346	Continuing	Continuing	Continuing
		Subtotal	9.890	0.606		0.000		0.346		0.000		0.346			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	166.048	11.541		9.093		13.903		0.000		13.903			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604503N: *SSN-688 & Trident Modernization*	PROJECT 1411: *Sub Tact Comm System*

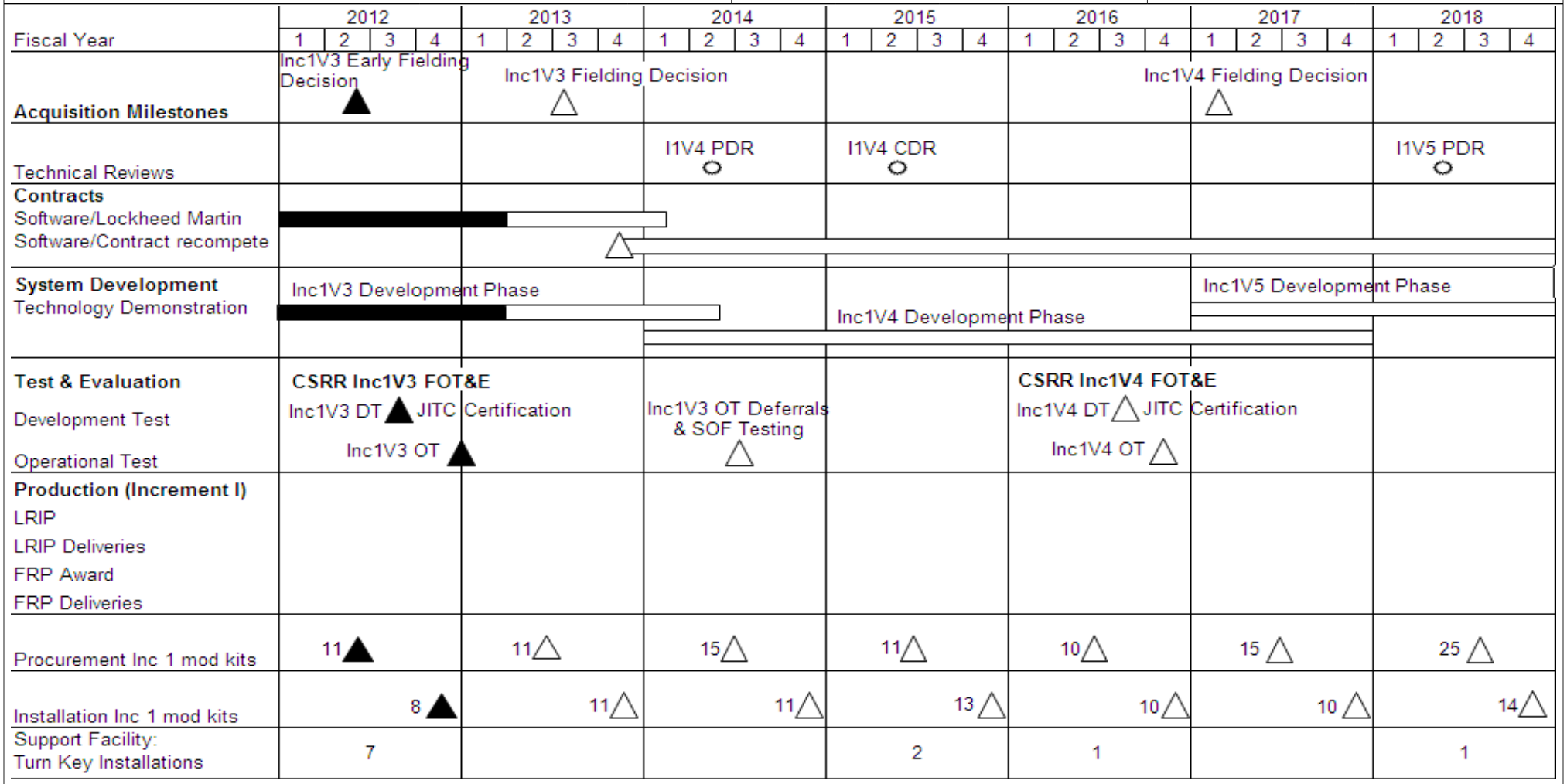


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604503N: *SSN-688 & Trident Modernization*	**PROJECT** 1411: *Sub Tact Comm System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1411				
Early Fielding Decision (Increment 1 Version 3)	2	2012	2	2012
Fielding Decision (Inc 1 Ver 3)	3	2013	3	2013
Fielding Decision (Increment 1 Version 4)	1	2017	1	2017
Technical Reviews (Inc 1 Ver 4 Preliminary Design Review (PDR))	2	2014	2	2014
Technical Reviews (Inc 1 Ver 4 Critical Design Review (CDR))	2	2015	2	2015
Technical Reviews (Increment 1 Version 5 Preliminary Design Review (PDR))	2	2018	2	2018
Technology Demonstration (Inc 1 Ver 3) Development Phase	1	2012	2	2014
Technology Demonstration (Inc 1 Ver 4) Development Phase	1	2014	4	2017
Technology Demonstration (Inc 1 Ver 5) Development Phase	1	2017	4	2018
Contracts (Software---Lockheed Martin)	1	2012	1	2014
Contracts (Software---Follow-On)	4	2013	4	2018
Development Test (DT) (Inc 1 Ver 3) Joint Interoperability Test Command (JITC) Certification	3	2012	3	2012
Follow-on Operational Test & Evaluation (FOT&E) (Inc 1 Ver 3)	4	2012	1	2013
Increment 1 Ver 3 Operational Test (OT) deferrals & Special Operations Force (SOF) testing	3	2014	3	2014
DT (Inc 1 Ver 4) JITC Certification	3	2016	3	2016
FOT&E (Inc 1 Ver 4)	4	2016	4	2016
Procurement (Increment 1 Modernization Kits)	2	2012	3	2018
Installation (Inc 1 Modernization Kits)	4	2012	4	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	52.661	6.116	5.633	13.754	-	13.754	41.603	57.641	45.381	45.986	Continuing	Continuing
0718: *MATCALS*	0.000	0.602	0.630	3.624	-	3.624	0.644	0.649	0.663	0.675	Continuing	Continuing
0993: *Carrier ATC*	52.661	4.438	4.603	9.728	-	9.728	40.552	56.580	44.299	44.884	Continuing	Continuing
1657: *ATC Improvement*	0.000	1.076	0.400	0.402	-	0.402	0.407	0.412	0.419	0.427	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program element provides for the development, integration, and testing of Automated Air Traffic Control (ATC) hardware and software required to provide improved flight safety and more reliable all-weather ATC and landing system capabilities at Naval Air Stations (NASs) and Marine Corps Air Stations (MCASs) and Fleet Area Control and Surveillance Facilities (FACSFAC) worldwide. Funded programs are required to upgrade or replace aging ATC and landing system equipment on aircraft, aircraft carriers, amphibious ships, NASs, MCASs and Navy/Marine Corps tactical/expeditionary airfields and remote landing sites.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	5.521	5.633	6.084	-	6.084
Current President's Budget	6.116	5.633	13.754	-	13.754
Total Adjustments	0.595	0.000	7.670	-	7.670
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.720	0.000			
• SBIR/STTR Transfer	-0.125	0.000			
• Program Adjustments	0.000	0.000	7.700	-	7.700
• Rate/Misc Adjustments	0.000	0.000	-0.030	-	-0.030

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*

Change Summary Explanation

Schedule:

Proj. 0993: The Service funded the AN/SPN-43 Replacement program beginning in FY14, therefore the schedule has been updated to reflect the associated milestones.

Funding:

Proj. 0718: Added FY 14 funding for G/ATOR Increment IV

Proj. 1657: Added FY 12 funds for development of air traffic control and air space management strategic plan.

Technical: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0718: *MATCALS*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0718: *MATCALS*	0.000	0.602	0.630	3.624	-	3.624	0.644	0.649	0.663	0.675	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program provides for continued development, integration, and testing of hardware and software to meet requirements for all-weather operation and improved flight safety of Air Traffic Control and Landing Systems at Marine Corps expeditionary airfields. Current program includes approved transition to Air Surveillance and Precision Approach Radar Control System (ASPARCS). The ASPARCS will replace the legacy Air Traffic Control (ATC) Precision Approach Radar (PAR), Air Surveillance Radar (ASR), and Communications and Control Subsystem with a High Mobility Multipurpose Wheeled Vehicle based PAR, ASR, and Command and Control (C2) Subsystem. Efforts have begun for requirements definition, development and engineering for the ASPARCS Pre-Planned Product Improvements (P3I), in accordance with Marine Corps Requirements Oversight Council (MROC) Decision Memorandum 11-2005 dated December 2004. P3I includes the design and development of software code to interface C2 input/output to existing software, incorporating Radar Range Extension and Mapping functionality, enhanced simulation and training and providing increased operator workstations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: ASPARCS Improvements	0.602	0.630	0.634
Articles:	0	0	0

Description: Investigate and resolve obsolescence issues. Perform studies and analyses to implement P3I and other evolutionary improvements. Develop criteria for existing ASPARCS software to achieve Defense Information Infrastructure-Common Operating Environment Level 5 compliance, Information Assurance, Radar Range Extension and Mapping functionality, and enhanced simulation and training into the existing ASPARCS software. Perform studies and analyses.

FY 2012 Accomplishments:

Funded the development of a Capabilities Development Document for Replacement Expeditionary ATC Tower. Initial Capabilities Document for ATC states that a deployable, mobile, scalable (the size of airfield) tower with enhanced night vision device capability, and equipped with a certified tower radar display, is a capability gap in fielded Marine Air Traffic Control and Landing System (MATCALS) equipment. Current tower has increasing obsolescence issues and is reaching its service life limits.

FY 2013 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604504N: *Air Control*	**PROJECT** 0718: *MATCALS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Conduct investigation on obsolescence issues. Continue integration of Ground Air Task Oriented Radar System (GATOR) and Common Aviation Command and Control Suite (CAC2S) with ASPARCS. ***FY 2014 Plans:*** ASPARCS Improvements: Develop Tactical Air Navigation (TACAN) Modernization Part 1 ECP to reduce operational footprint and increase supportability and transportability.			
Title: Ground/Air Task Oriented Radar System (G/ATOR) Increment IV ***Articles:*** ***Description:*** G/ATOR is multi-role, ground-based, expeditionary radar that replaces five legacy radar systems for the Marine Air Ground Task Force. It satisfies the Marine Air Command and Control System and the Ground Counter Fire/ Counter Battery capabilities. The G/ATOR replaces the AN/TPS-63 and complements the AN/TPS-59 long range radar and will provide mobile, multi-functional, three-dimensional surveillance of air breathing targets, detection of cruise missiles and UAS, and the cueing of air defense weapons. The G/ATOR contributes to the extension of Sea Shield/Sea Strike by surveillance and detection of enemy air threats not seen by Navy sensors in the littorals by participating in a cooperative engagement network of sensors and shooters; G/ATOR enables integrated fire control (IFC) and provides engage/fire on remote capability. G/ATOR surveillance coverage with IFC will provide unprecedented reach, volume and precision in the execution of Operational Maneuver From The Sea allowing Naval forces to project and sustain power deep inland. G/ATOR Increment IV, scheduled for an Initial Operating Capability in 2018, will add military air traffic control functionality, development of Mode 5/S capability, FAA flight certification requirements, and the ability to integrate with TPN-31(V) Air Traffic Navigation, Integration, and Coordination System (ATNAVICS) for Precision Approach Radar. This increment of G/ATOR replaces the Marine Corps' TPS-73 radar and the Airport Surveillance Radar portion of the ATNAVICS also known as Air Surveillance and Precision Approach Radar Control System (ASPARCS). ***FY 2014 Plans:*** Begins software development of the Mode 5/S capability and integration of Command & Control functionality with TPN-31(V) ATNAVICS. Begin efforts to achieve FAA flight certification for G/ATOR.	0.000	0.000	2.990 0
Accomplishments/Planned Programs Subtotals	0.602	0.630	3.624

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2815: *MATCALS*	13.368	5.861	7.461		7.461	15.086	7.777	6.425	6.527	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0718: *MATCALS*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTE/0204460M: *G/ATOR*	0.000	75.088	78.208		78.208	77.413	74.653	49.969	19.968	Continuing	Continuing
• PMC/4650: *RADAR SYSTEMS*	4.246	90.348	99.325		99.325	74.830	236.165	237.381	121.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

Air Surveillance and Precision Approach Radar Control System (ASPARCS) is an ACAT IVT program. Lockheed Martin was awarded the contract for this effort in June 2000. This effort included First Article development (Fixed Price Incentive) with (Firm Fixed Priced) production options. Schedule delays and technical issues with the Precision Approach Radar (PAR) and Air Surveillance Radar (ASR) and integration with the operation subsystem/communication subsystem resulted in a no-cost close out to the Lockheed Martin contract in November 2004. An Acquisition Decision Memorandum was signed in Jan 2005 approving the procurement of the Army AN/TPN-31 System to fulfill the Air Surveillance and Precision Approach Radar and Control System (ASPARCS) requirement for July 2006. The MROC Decision Memorandum 11-2005 of December 2004 outlined the evolutionary improvements envisioned by Headquarters Marine Corps. This program has joined with the Army to implement P3I and evolutionary product improvements.

E. Performance Metrics

The MATCALS RDTEN funding will develop a planned replacement for the current ASR.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0718: *MATCALS*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HDW Develop - G/ ATOR	TBD	Northrop Grumman:Linthicum, MD	0.000	0.000		0.000		1.500	Mar 2014	-		1.500	Continuing	Continuing	Continuing
Primary HDW Develop - G/ ATOR	TBD	TBD:TBD	0.000	0.000		0.000		0.600	Jan 2014	-		0.600	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		2.100		0.000		2.100			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development - G/ ATOR	WR	NSWC:Dahlgren, VA	0.000	0.000		0.000		0.750	Dec 2013	-		0.750	Continuing	Continuing	Continuing
Software Development - ASPARCS	WR	NAWCAD:Patuxent River, MD	0.000	0.602	Dec 2011	0.630	Dec 2012	0.634	Dec 2013	-		0.634	Continuing	Continuing	Continuing
		Subtotal	0.000	0.602		0.630		1.384		0.000		1.384			

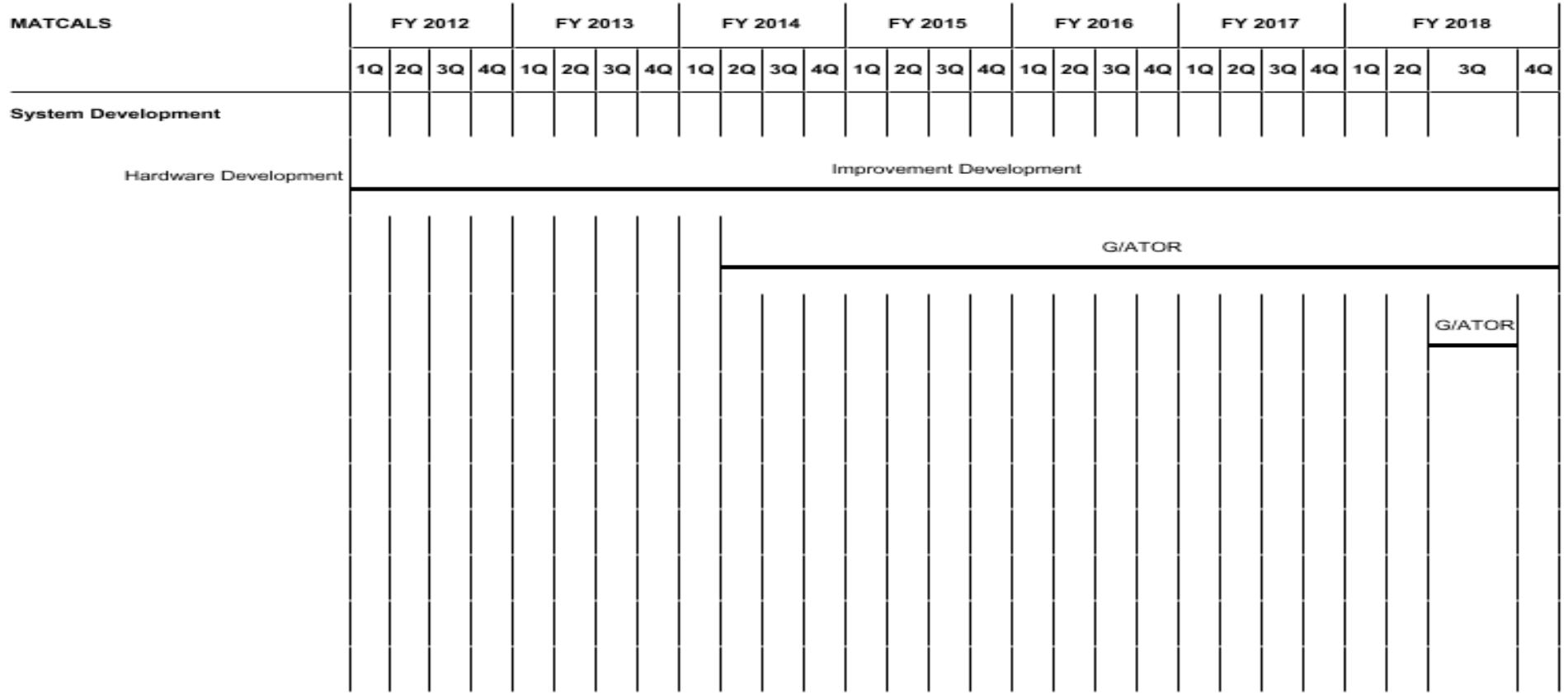
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	NAWCAD:Patuxent River, MD	0.000	0.000		0.000		0.140	Dec 2013	-		0.140	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		0.140		0.000		0.140			

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.602		0.630		3.624		0.000		3.624			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0718: *MATCALS*



2014PB - 0604504N - 0718

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604504N: *Air Control*	**PROJECT** 0718: *MATCALS*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MATCALS				
System Development: Hardware Development: ASPARCS Improvements	1	2012	4	2018
System Development: Hardware Development: G/ATOR	2	2014	4	2018
System Development: Hardware Development: G/ATOR Inc IV IOC	3	2018	3	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0993: *Carrier ATC*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0993: *Carrier ATC*	52.661	4.438	4.603	9.728	-	9.728	40.552	56.580	44.299	44.884	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Shipboard Air Traffic Control (ATC) Central systems, interfacing with versions of the AN/TPX-42(V) Direct Altitude and Identity Readout system (DAIR), allow Shipboard Air Traffic Controllers to identify, marshal, and direct aircraft within a 50 Nautical Mile (NM) radius of the ship. At closer range (8NM) a ship's Automatic Carrier Landing System (ACLS) and Independent Landing Monitor (ILM) are operationally required to affect safe landing on the moving decks of ships. The AN/SPN-41 ILM and AN/SPN-46 ACLS provide verification of aircraft approach glideslope position and precise aircraft automatic control respectively during its final approach and landing sequence to an aircraft carrier. Dual efforts are underway to improve the AN/SPN-46 system availability and supportability until at least September 2020. These efforts include various Engineering Change Proposals (ECPs), and the Life Cycle Extension (LCE) program transitional changes include a re-architecture of its radar control group process with Commercial Off the Shelf (COTS) technology, replacement of the computer group processing hardware, and conversion of system program software from CMS-2 to the more commonly used 'C' programming language. In recent years, the top 25% of the AN/SPN-43 frequency band has been reallocated to the Fixed Wireless Access community prohibiting ATC radar operation within 50 miles of the coast. Because the Navy requires an air traffic control radar, this project unit will include engineering efforts to identify requirements and develop a suitable replacement and bridging ECPs before the AN/SPN-43 becomes operationally ineffectual. Finally, the AN/TPX-42A(V)14 DAIR underwent several phased upgrades that have resulted in three field changes. System improvements include replacing militarized front-end equipment in the track processor with COTS technology, converting the operational program software to more commonly used and flexible 'C' language, integrating and interface with Mode 5 Identification Friend or Foe, and integrating a flat panel monitor into the AN/UYQ-70 console. The development of an ATC common console will reduce operational costs, improve reliability, and provide compatible interfaces and commonality for all ATC workstations. The addition of an embedded trainer within AN/TPX-42 A(V) will improve controller training and increase flight safety.

Test Article Descriptions:

The AN/TPX-42 ATC Console Engineering Development Model delivered in FY 2012 will be used to support developmental testing to verify system performance against established requirements.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: AN/SPN-43C	2.616	3.268	7.986
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0993: *Carrier ATC*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Description: This project funds the development of the AN/SPN-43C replacement program, as well as development of sustainment Engineering Change Proposal (ECP) for the existing system. The sustainment effort will ensure the capabilities remain available to CVN, LHA and LHD type ships until the replacement system is fielded. ***FY 2012 Accomplishments:*** Completed market research and Decision Analysis Support. Identified ECPs required for effective system sustainment until replaced. Developed AN/SPN-43C replacement CONOPS. Commenced replacement system Capability Development Document (CDD) development. ***FY 2013 Plans:*** Continue CDD and commence Systems Requirement Document development. Develop replacement system Life Cycle Requirements Funding Summary, Life Cycle Cost Estimate, and Request for Proposal (RFP). Prepare documentation and request Material Development Decision from designated Milestone Decision Authority. ***FY 2014 Plans:*** Prepare documentation for AN/SPN-43 replacement program MS B decision. Prepare for source selection and release RFP.			
Title: AN/TPX-42	1.822	1.335	1.742
Articles:	0	0	0
Description: This project funds development of the final ATC Console configuration to include JPALS interface, embedded trainer, and replacement of AN/SPN-35/46 Operator displays. It is anticipated that this technology insertion will result in a formal nomenclature change for the AN/TPX-42 system, as such the identification of the modification kits will change to 'H' Kits. "H" Kits will also identify and test Voice Recorder replacement technology and obsolete components. ***FY 2012 Accomplishments:*** Continued development of Automatic Dependent Surveillance Broadcast requirements. Developed ATC Console requirements. Commenced testing of AN/TPX-42A(V)14 field change 5. Conducted preliminary design review for AN/TPX-42A(V) embedded trainer. ***FY 2013 Plans:*** Begin part 1 ECP for ATC console development. Take delivery of prototype and test AN/TPX-42A(V) embedded trainer. ***FY 2014 Plans:*** Complete part 1 ECP, initiate part 2 ECP and conduct critical design review for AN/TPX-42A(V) embedded trainer.			
Accomplishments/Planned Programs Subtotals	4.438	4.603	9.728

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0993: *Carrier ATC*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2831: *Shipboard Air Traffic Control*	7.394	8.362	9.140		9.140	9.839	9.953	10.241	10.402	Continuing	Continuing
• OPN/2832: *Automatic Carrier Landing Systems*	17.018	15.685	20.798		20.798	20.049	19.340	19.799	20.127	Continuing	Continuing

Remarks

D. Acquisition Strategy

AN/SPN-46 Computer Group replacement subprojects are part of the AN/SPN-46 LCE project, which is an ECP. Initial contract was awarded in November 2003 for the Radar Control Group, and the contract for the Computer Group was awarded in December 2005. AN/TPX-42 Voice/Video recorder replacement, JPALS Interface, Shipboard trainer, and ATC Console are all anticipated ECPs, with improvements being incorporated into the production of AN/TPX-42 upgrade kits. AN/SPN-43 replacement program will be an ACAT IVT program.

All other projects are non-ACAT upgrades to existing systems. An evolutionary acquisition approach is being used to introduce these technology advancements that either satisfy user requirements, such as all weather operation, or address supportability and cost of ownership problems.

E. Performance Metrics

Prototype Delivery will occur in Second Quarter FY13 for the AN/TPX-42 Embedded Trainer.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0993: *Carrier ATC*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HDW Develop-SPN-46	WR	NAWCAD:PAX River, MD	11.546	0.000		0.000		0.000		-		0.000	0.000	11.546	
Primary HDW Develop-SPN-46	SS/CPIF	SNC:Sierra, NV	6.356	0.000		0.000		0.000		-		0.000	0.000	6.356	6.356
Primary HDW Develop-TPX-42	WR	NAWCAD:PAX River, MD	2.948	0.794	Dec 2011	0.219	Dec 2012	0.300	Dec 2013	-		0.300	Continuing	Continuing	Continuing
Primary HDW Develop - SPN-43	WR	NAWCAD:PAX River, MD	0.000	1.634	Dec 2011	2.711	Dec 2012	3.122	Dec 2013	-		3.122	Continuing	Continuing	Continuing
		Subtotal	20.850	2.428		2.930		3.422		0.000		3.422			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development-SPN-46	WR	NAWCAD:PAX River, MD	13.120	0.000		0.000		0.000		-		0.000	0.000	13.120	
Software Development-TPX-42	WR	NAWCAD:PAX River, MD	11.257	1.153	Dec 2011	1.160	Dec 2012	1.215	Dec 2013	-		1.215	Continuing	Continuing	Continuing
Integrated Logistics Support- TPX-42	WR	NAWCAD:PAX River, MD	0.732	0.075	Dec 2011	0.050	Dec 2012	0.100	Dec 2013	-		0.100	Continuing	Continuing	Continuing
Studies & Analysis-SPN-46	WR	NAWCAD:PAX River, MD	0.273	0.000		0.000		0.000		-		0.000	0.000	0.273	
Software Development - SPN-43	WR	NAWCAD:PAX River, MD	0.000	0.000		0.000		3.500	Dec 2013	-		3.500	0.000	3.500	
Studies & Analysis-SPN-43	WR	NAWCAD:PAX River, MD	1.350	0.050	Dec 2011	0.050	Dec 2012	0.150	Dec 2013	-		0.150	Continuing	Continuing	Continuing
Studies & Analysis-TPX-42	WR	NAWCAD:PAX River, MD	0.250	0.050	Dec 2011	0.050	Dec 2012	0.054	Dec 2013	-		0.054	Continuing	Continuing	Continuing
Integrated Logistics Support - SPN-43	WR	NAWCAD:PAX River, MD	0.000	0.075	Dec 2011	0.100	Dec 2012	0.300	Dec 2013	-		0.300	Continuing	Continuing	Continuing
		Subtotal	26.982	1.403		1.410		5.319		0.000		5.319			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0993: *Carrier ATC*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation- SPN-46	WR	NAWCAD:PAX River, MD	1.645	0.000		0.000		0.000		-		0.000	0.000	1.645	
Developmental Test & Evaluation- TPX-42	WR	NAWCAD:PAX River, MD	1.050	0.458	Dec 2011	0.157	Dec 2012	0.237	Dec 2013	-		0.237	Continuing	Continuing	Continuing
Development Test & Evaluation - SPN-43	WR	NAWCAD:PAX River, MD	0.000	0.000		0.000		0.200	Dec 2013	-		0.200	0.000	0.200	
OperationalTest & Evaluation- TPX-42	WR	OPTEVOR:Norfolk, VA	0.062	0.000		0.000		0.000		-		0.000	0.000	0.062	
		Subtotal	2.757	0.458		0.157		0.437		0.000		0.437			

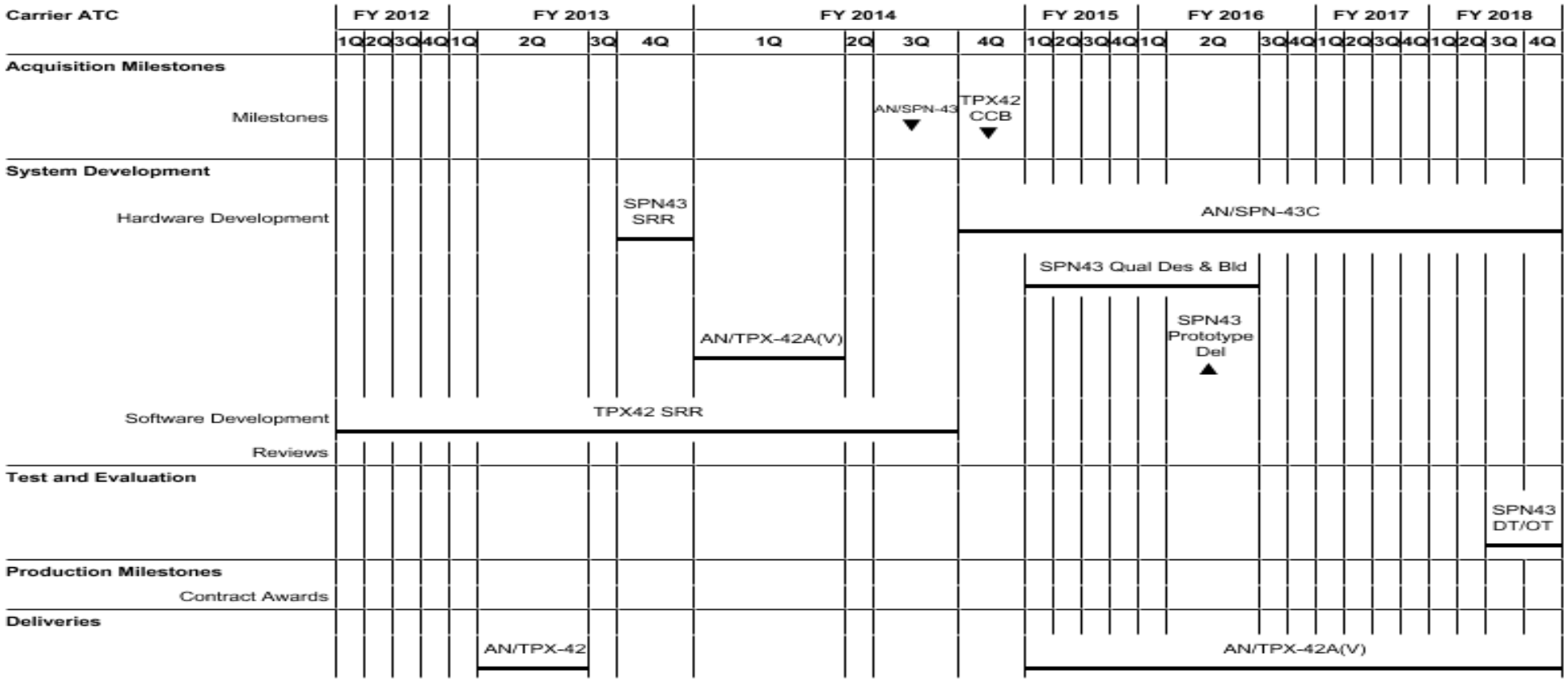
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	American Electronics, Inc.:California, MD	1.937	0.046	Dec 2011	0.046	Dec 2012	0.200	Dec 2013	-		0.200	Continuing	Continuing	Continuing
Program Management Support	WR	NAWCAD:PAX River, MD	0.000	0.103	Dec 2011	0.060	Dec 2012	0.300	Dec 2013	-		0.300	Continuing	Continuing	Continuing
Travel	WR	NAVAIRHQ:PAX River, MD	0.135	0.000		0.000		0.050	Dec 2013	-		0.050	0.000	0.185	
		Subtotal	2.072	0.149		0.106		0.550		0.000		0.550			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	52.661	4.438		4.603		9.728		0.000		9.728			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0993: *Carrier ATC*



2014OSD - 0604504N - 0993

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 0993: *Carrier ATC*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Carrier ATC				
Acquisition Milestones: Milestones: Configuration Control Board (TPX42)	4	2014	4	2014
Acquisition Milestones: Milestones: AN/SPN-43 Milestone B	3	2014	3	2014
System Development: Hardware Development: AN/SPN-43C	4	2014	4	2018
System Development: Hardware Development: System Requirement Review (SRR) (SPN43)	4	2013	4	2013
System Development: Hardware Development: Quality Design and Build (SPN43)	1	2015	2	2016
System Development: Hardware Development: Prototype Delivery (SPN43)	2	2016	2	2016
System Development: Hardware Development: Critical Design Review (CDR) TPX42A(V)	1	2014	1	2014
System Development: Software Development: System Requirement Review (SRR) (TPX42)	1	2012	3	2014
Test and Evaluation: Developmental Testing/Operational Testing (SPN43)	3	2018	4	2018
Deliveries: Prototype Deliveries (TPX-42A(V))	2	2013	2	2013
Deliveries: System Deliveries (TPX-42A(V))	1	2015	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 1657: *ATC Improvement*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1657: *ATC Improvement*	0.000	1.076	0.400	0.402	-	0.402	0.407	0.412	0.419	0.427	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program provides for engineering development, integration, adaptation, and testing of new and/or modernized Air Traffic Control (ATC) systems, air navigational aids, landing systems, and ATC communication systems for Naval and Marine Corps Air Stations (NAS/MCAS) and Fleet Air Traffic Control Systems. These systems are critical to Naval Aviation and provide for safe, efficient air operations. Additionally, the Federal Aviation Administration (FAA) is affecting major modernization of the National Airspace System (NAS). The Navy must maintain compatibility with FAA-developed ATC systems in order to ensure seamless interoperability within the NAS. NAS modernization initiatives in Project 1657 include the Visual Information Display System (VIDS) and follow-on Pre-Planned Product Improvements, with additional RDT&E efforts required for modified commercial-off-the-shelf ATC systems and equipment for modernization and recapitalization of these systems at our NAS, MCAS & Fleet Area Control & Surveillance Facilities (FACSFACs) worldwide. Landing Systems initiatives include re-engineering and technology insertion efforts for the Precision Approach Radar, Tactical Air Navigation System, and other landing systems.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: NAS MOD VIDS	0.930	0.200	0.202
Articles:	0	0	0

Description: Continue engineering development of pre-planned product improvements for the VIDS and initiate efforts to incorporate VIDS into the FACSFACs. Research display alternatives for Navy ATC systems, and evaluate alternatives for future communication and radar systems.

FY 2012 Accomplishments:

Continued engineering development of Pre-Planned Product Improvements for VIDS to incorporate multiple weather source inputs. Continued Standard Terminal Automation Replacement System and VIDS engineering development for technology insertion. Began engineering efforts to maintain interoperability with the FAA's next generation air traffic control system. Additional funding in FY2012 funded the development of a Naval Air Traffic Control and Air Space Management Strategic Plan that provides insight to meet Naval Air Traffic Control requirements through 2030.

FY 2013 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 1657: *ATC Improvement*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue engineering development of Pre-Planned Product Improvements for VIDS to incorporate multiple weather source inputs. Continue Standard Terminal Automation Replacement System and VIDS engineering development for technology insertion. Continue engineering efforts to maintain interoperability with the FAA's next generation air traffic control system. ***FY 2014 Plans:*** Continue engineering development of Pre-Planned Product Improvements for VIDS to incorporate multiple weather source inputs. Continue Standard Terminal Automation Replacement System and VIDS engineering development for technology insertion. Continue engineering efforts to maintain interoperability with the FAA's next generation air traffic control system.			
Title: Fleet ATC Systems	0.146	0.200	0.200
Articles:	0	0	0
Description: Research efforts to determine the best technical approach to integrate various data link and communication system upgrades into Navy/Marine Corps ATC Systems including but not limited to the Digital Airport Surveillance Radar (DASR) into the Fleet Area Control and Surveillance Facilities (FACSFAC) Fleet Area Control Tracking System (FACTS) 3200 system. Evaluate alternatives for future processor/display, sensor and communication systems. ***FY 2012 Accomplishments:*** Continued engineering development for Navy Scheduling System (NAVSKED)/FACTS Technology Refresh and engineering efforts to maintain interoperability with the FAA's next generation air traffic control system. ***FY 2013 Plans:*** Continue engineering development for NAVSKED/FACTS Technology Refresh and engineering efforts to maintain interoperability with the FAA's next generation air traffic control system. ***FY 2014 Plans:*** Continue engineering development for NAVSKED/FACTS Technology Refresh and engineering efforts to maintain interoperability with the FAA's next generation air traffic control system.			
Accomplishments/Planned Programs Subtotals	1.076	0.400	0.402

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2840: *National Air Space System Modernization*	24.581	16.919	19.754		19.754	28.764	28.888	31.348	34.144	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 1657: *ATC Improvement*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2845: *Fleet Air Traffic Control Systems*	7.213	6.828	8.909		8.909	9.583	8.964	9.165	9.312	Continuing	Continuing

Remarks

D. Acquisition Strategy

All projects are non-ACAT upgrades to existing systems. An evolutionary acquisition approach is being used to introduce technology advancements that either satisfy emergent requirements or address supportability and cost of ownership problems.

E. Performance Metrics

The ATC Improvement program goal is to continue to research, evaluate and develop display and other alternatives for Navy ATC, communication and radar systems.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604504N: *Air Control*	PROJECT 1657: *ATC Improvement*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HDW Develop - VIDS	WR	SPAWAR Systems Command:Charleston, SC	0.000	0.170	Dec 2011	0.200	Dec 2012	0.202	Dec 2013	-		0.202	Continuing	Continuing	Continuing
Primary HDW Develop - Fleet ATC	WR	SPAWAR Systems Center:Charleston, SC	0.000	0.146	Dec 2011	0.200	Dec 2012	0.200	Dec 2013	-		0.200	Continuing	Continuing	Continuing
		Subtotal	0.000	0.316		0.400		0.402		0.000		0.402			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	SPAWAR Systems Center:Charleston, SC	0.000	0.760	Jun 2012	0.000		0.000		-		0.000	0.000	0.760	
		Subtotal	0.000	0.760		0.000		0.000		0.000		0.000	0.000	0.760	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	1.076		0.400		0.402		0.000		0.402			

Remarks

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	350.525	47.903	55.826	69.615	-	69.615	25.668	19.374	20.189	20.394	Continuing	Continuing
2232: *CV/CVN Launch and Recover*	350.525	47.903	55.826	69.615	-	69.615	25.668	19.374	20.189	20.394	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

CV Launch & Recovery System - This Navy unique project addresses the System Development and Demonstration of all systems required to recover and launch Navy/ Marine Corps Aircraft (Fixed/Rotary Wing and Vertical/Short Take Off and Landing) operating aboard aircraft carriers, amphibious assault ships and air capable ships. This program element includes the following:

(1) Advanced Arresting Gear
(2) Aviation Data Management and Control System
(3) Electromagnetic Aircraft Launch System
(4) Compact Swaging Machine
(5) Aircraft Launch & Recovery Equipment Modernization
(6) Aircraft Launch and Recovery Equipment Service Life Management program

This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	45.445	55.826	30.354	-	30.354
Current President's Budget	47.903	55.826	69.615	-	69.615
Total Adjustments	2.458	0.000	39.261	-	39.261
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	3.472	0.000			
• SBIR/STTR Transfer	-1.014	0.000			
• Program Adjustments	0.000	0.000	39.485	-	39.485
• Rate/Misc Adjustments	0.000	0.000	-0.224	-	-0.224

Change Summary Explanation

Cost: Added funding in fiscal years 12 and 14 to the Advanced Arresting Gear effort to properly price the program. Cost increases are due to schedule delays reported above under schedule changes. Removed FY 14 funding for EMALS sensorless controls testing.

Schedule:
Advanced Arresting Gear (AAG) - During system integration and initial deadload arrestment testing, the AAG program experienced technical challenges. Required subcomponent redesigns delayed execution of the test program. Accordingly, a rebaseline of the program was completed, which moved Milestone C to 4th quarter FY15. Hence, the remaining test events, milestones and procurements were adjusted accordingly.

Aviation Data Management and Control System Block 3 - Block 3 schedule changes are a result of rework to the existing software baseline. Planned milestones and test events were adjusted accordingly.

Electromagnetic Aircraft Launch System (EMALS) - Due to higher Department priorities, the program will cancel the EMALS Sensorless Controls project. FY13 funds will be used for contract closeout costs.

Aircraft Launch & Recovery Equipment Modernization Improved Manually Operated Visual Landing Aid System - Program start date has moved from 3rd quarter FY12 to 1st quarter FY13 to ensure adequate definition of system requirements. The program's plan of action and milestones were adjusted accordingly.

Aircraft Launch and Recovery Equipment Service Life Management program - Initial findings during Service Life Assessment program has expanded the requirement to include follow-on analysis and testing. Both events have been extended into 4th Quarter of FY17.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604512N: *Shipboard Aviation Systems*

Advanced Prognostics for Steam Catapults - Program cancelled in order to fund higher priority programs within the program element.

Technical: Not Applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2232: *CV/CVN Launch and Recover*	350.525	47.903	55.826	69.615	-	69.615	25.668	19.374	20.189	20.394	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	2		2	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This Navy unique project addresses the System Development and Demonstration (SDD) of all systems required to recover and launch Navy/Marine Corps Aircraft (Fixed/Rotary Wing and Vertical/Short Take-Off and Landing) operating aboard aircraft carriers (CVN), amphibious assault ships and air capable ships. This program includes the following systems under Project 2232, including the funding of production representative models for:

(1) Advanced Arresting Gear (AAG): The AAG program will design, develop, test and field an aircraft arrestment system to replace the legacy Mark 7 arresting gear. AAG systems will be installed on all new construction aircraft carriers. AAG will provide the U.S. Navy with improved operational capability, while reducing operating and support costs. The AAG system will recover all existing and projected carrier based tail hook-equipped air vehicles well into the 21st century. The AAG Program's SDD phase test articles will consist of a land based, single wire configured aircraft arresting system, which includes associated hardware and software needed to conduct system integrated testing by arresting both dead-loads and aircraft.

(2) Aviation Data Management and Control System (ADMACS): ADMACS will use information technology and decision support systems to automate collection and distribution of information, enabling aviation operations on board aircraft carriers to be accomplished in a more efficient and effective manner. Capability beyond ADMACS Block 3 will be developed by using an evolutionary acquisition process.
(a) ADMACS Block 3: ADMACS Block 3 will integrate the EMALS and AAG interfaces into its baseline.

(3) Electromagnetic Aircraft Launch System (EMALS) Sensorless Controls: EMALS will be the fixed wing aircraft catapult for the CVN-78 class of aircraft carriers. The program will further the development and insertion of applicable emerging technologies into EMALS capitalizing on the full capability of the system. The EMALS system was developed under the carrier system development program element (0603512N).

(4) Compact Swaging Machine: Funded by ONR (OSD PE# 060051D8Z) in FY 2009. The current process of pouring zinc sockets to attach the arresting gear purchase cable will be replaced with a new swaged terminal design that will be pressed on by means of a high density, compact swaging machine.

(5) Aircraft Launch & Recovery Equipment (ALRE) Modernization:
(a) Improved Fresnel Lens Optical Landing System Phase 4 (IFLOLS): Control system processor and digital interfaces upgrades to support Built-In-Test, Aviation Data Management and Control System integration & maintenance /obsolescence reduction.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

(b) Improved Manually Operated Visual Landing Aid System (IMOVLAS): IMOVLAS will be the manual backup for IFLOLS which is the primary carrier Visual Landing Aid. IMOVLAS will be used in high sea states or if IFLOLS is inoperable, and will mirror current IFLOLS configuration in size & display. Two production representative models will be procured in FY14; the models will be utilized for environmental and developmental testing.

(6) Aircraft Launch & Recovery Equipment (ALRE) Service Life Management Program (SLMP): The ALRE SLMP for Launcher and Recovery is required to sustain carrier aviation operations of higher energy aircraft launch and recoveries that are increasing loads on the ALRE systems, and that are affecting availability, maintainability and cost. This program will consist of service life assessment and extension initiatives and will establish the design foundation (structural, reliability, and maintainability analyses), permit appropriate assessment, track and focus design changes where most needed. Increase in funding from FY13 to FY14 is due to the implementation of the Cross Deck Pendants (CDP) Service Life Assessment effort in FY14.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Advanced Arresting Gear (AAG)	35.634	44.602	55.597
Articles:	0	0	0
Description: The AAG program is designing, developing, testing and fielding an aircraft arrestment system to replace the legacy Mark 7 arresting gear. ***FY 2012 Accomplishments:*** Completed Commissioning Deadload tests and conduct Jet Car Track Site (JCTS) testing. ***FY 2013 Plans:*** Complete JCTS testing utilizing deadloads. Complete planning and site preparations for equipment installation at Runway Arrested Landing Site test facility. ***FY 2014 Plans:*** Conduct integrated testing. Support planning for test and evaluation. Execution of live aircraft arrestments at Runway Arrested Landing Site.			
Title: Aviation Data Management and Control System (ADMACS) Block 3	4.201	2.813	0.643
Articles:	0	0	0
Description: ADMACS provides real time, fault tolerant (redundant), tactical information management system. ADMACS Block 3 will integrate the Electromagnetic Aircraft Launch System and Advanced Arresting Gear interfaces into its baseline. ***FY 2012 Accomplishments:*** Completed preliminary System Design and Development. ***FY 2013 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue System Design and Development. ***FY 2014 Plans:*** Conduct system testing.			
Title: Electromagnetic Aircraft Launch Systems (EMALS) Sensorless Controls ***Articles:*** ***Description:*** Electromagnetic Aircraft Launch Systems (EMALS) will be the fixed wing aircraft catapult for the CVN-78 class of aircraft carriers. The program will further the development and insertion of applicable emerging technologies into EMALS capitalizing on the full capability of the system. Due to higher Department priorities, the program will cancel the EMALS Sensorless Controls project. FY 13 funds will be used for contract closeout costs. ***FY 2012 Accomplishments:*** Continued hardware development and integration at Advanced Linear Motor site. Construct/Test Electro Standard Laboratories Dual Test Bed. ***FY 2013 Plans:*** Fund contract closeout costs through second quarter 2013 associated with EMALS Sensorless Controls project cancellation.	1.000 0	1.131 0	0.000
Title: Compact Swaging Machine ***Articles:*** ***Description:*** Compact Swaging Machine - This program will replace the current process for attaching the terminal on the arresting gear purchase cable with a swaged terminal design that will be pressed on by means of a high density, compact, swaging machine. ***FY 2012 Accomplishments:*** Implemented design modifications into the test article and continue testing. ***FY 2013 Plans:*** Prepare the test article for installation and testing. ***FY 2014 Plans:*** Commence shipboard test and evaluation.	0.500 0	0.198 0	0.252 0
Title: Aircraft Launch & Recovery Equipment Modernization ***Articles:***	1.600 0	0.906 0	1.662 2

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Description: Improved Fresnel Lens Optical Landing System and Improved Manually Operated Visual Landing Aid System to improve carrier aviations operations. ***FY 2012 Accomplishments:*** Improved Fresnel Lens Optical Landing System - Conduct Technical Readiness Review and initiate integrated testing. ***FY 2013 Plans:*** Improved Manually Operated Visual Landing Aid System (IMOVLAS) - Commence System Design and Development. ***FY 2014 Plans:*** Improved Manually Operated Visual Landing Aid System - Continue System Design and Development of two production representative models.			
Title: Aircraft Launch & Recovery Equipment (ALRE) SLMP	4.968	6.176	11.461
Articles:	0	0	0
Description: ALRE SLMP analyzes launch and recovery equipment to determine feasible fielded equipment improvements. ***FY 2012 Accomplishments:*** Complete analysis on the Mark 7 (MK-7) arresting gear and the C13-2 Catapult. Commence design, development and testing for MK-7 components and subcomponents. ***FY 2013 Plans:*** Begin modeling and analysis of the C13-1 Catapult. Commence design, development and testing for C13-2 Catapult components and subcomponents. Continue design, development and testing for MK-7 components and subcomponents. ***FY 2014 Plans:*** Continue launch and recovery equipment design, development, analysis and testing as well as the implementation of the Cross Deck Pendants life analysis program.			
Accomplishments/Planned Programs Subtotals	47.903	55.826	69.615

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/4216: *Aircraft Launch & Recovery Equipment*	19.777	82.618	59.502		59.502	52.049	70.393	86.604	83.104	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/9020: *Aircraft Launch & Recovery Equipment Spares*	0.014	3.694	9.536		9.536	0.360	0.273	0.055	6.405	0.000	23.492
• SCN/2001: *Carrier Replacement Program*	554.798	608.195	944.866		944.866	1,834.072	1,918.441	2,539.826	2,954.419	Continuing	Continuing

Remarks

D. Acquisition Strategy

Advanced Arresting Gear (AAG): The Navy competitively awarded two Cost Plus Fixed Fee Technical Development phase contracts to develop the AAG system. Upon completion of the Preliminary Design and Integrated Baseline reviews, the Navy awarded a single Cost Plus Award Fee option to General Atomics for the System Development and Demonstration (SDD) phase to develop and demonstrate a production representative Advanced Arresting Gear (AAG) at the NAVAIR Lakehurst Jet Car Track Site and Runway Arrested Landing Site. In March 2009, the AAG program awarded a SDD contract modification to General Atomics for Transition to Production planning.

Aviation Data Management and Control System (ADMACS): The Navy continues to design and develop ADMACS using commercially available servers, switches, workstations and database and communications software. One Engineering Development Model and 2 Low Rate Initial Production systems have been procured from a directed 8(a) Alaskan Native Corporation source.

Compact Swaging Machine: The Navy amended an existing Small Business Technology Transfer Phase III contract in order to build and test a prototype high density swaging machine which has been developed under Defense Acquisition Challenge Program funding (OSD PE 060051D8Z).

Aircraft Launch & Recovery Equipment Modernization:
(a) Improved Fresnel Lens Optical Landing System Phase IV (IFLOLS): The Navy will develop IFLOLS using commercial equipment racks, processors and displays.
(b) Improved Manually Operated Visual Landing Aid System (IMOVLAS): The Navy will develop IMOVLAS using commercial equipment racks, processors and displays.

Aircraft Launch & Recovery Equipment Service Life Management Program: This program will consist of Service Life Assessment and Extension initiatives and will establish the design foundation (structural, reliability and maintainability analyses), permit appropriate assessment, track and focus design changes where most needed.

E. Performance Metrics

Advanced Arresting Gear (AAG) will complete System Development and Demonstration Integrated testing at Jet Car Track Site and Runway Arrested Landing Site. AAG will demonstrate its key performance parameters and readiness for operational test.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HW Dev -AAG	C/CPAF	Gen Atomics:San Diego, CA	252.933	22.600	Feb 2012	27.513	Dec 2012	20.017	Dec 2013	-		20.017	5.000	328.063	324.263
Award Fees-AAG	C/CPAF	Gen Atomics:San Diego, CA	1.050	0.000		0.000		0.000		-		0.000	0.000	1.050	1.050
Primary HW Dev-AAG	WR	NAWCAD:Lakehurst, NJ	18.798	4.605	Nov 2011	5.025	Nov 2012	8.034	Nov 2013	-		8.034	7.722	44.184	
System Eng-AAG	WR	NAWCAD:Lakehurst, NJ	11.294	1.610	Nov 2011	2.244	Nov 2012	3.241	Nov 2013	-		3.241	2.610	20.999	
System Eng-AAG	C/CPFF	L3 Services,Inc.:Marlton, NJ	0.351	0.075	Jan 2012	0.000		0.000		-		0.000	0.000	0.426	0.426
Shipboard Intgrn-AAG	WR	NAWCAD:Lakehurst, NJ	3.044	0.480	Nov 2011	1.044	Nov 2012	1.055	Nov 2013	-		1.055	0.909	6.532	
Primary HW Dev-ADMACS BLK 3	WR	NAWCAD:Lakehurst, NJ	1.375	1.368	Nov 2011	0.775	Jan 2013	0.177	Nov 2013	-		0.177	0.000	3.695	
Primary S/W Dev-ADMACS BLK3	WR	NAWCAD:Lakehurst, NJ	0.400	2.133	Nov 2011	0.000		0.000		-		0.000	0.000	2.533	
System Eng-ADMACS Blk 3	WR	NAWCAD:Lakehurst, NJ	0.000	0.470	Nov 2011	0.200	Jan 2013	0.090	Nov 2013	-		0.090	0.000	0.760	
Shipboard Integration-ADMACS Blk 3	WR	NAWCAD:Lakehurst, NJ	0.000	0.000		0.545	Jan 2013	0.185	Nov 2013	-		0.185	0.000	0.730	
Primary HW Dev-EMALS Tech Insert	C/CPFF	Electro Standards Laboratories:Cranston, RI	1.261	0.635	Dec 2011	0.750	Apr 2013	0.000		-		0.000	0.000	2.646	2.646
System Eng-EMALS Tech Insert	WR	NAWCAD:Lakehurst, NJ	0.335	0.365	Nov 2011	0.355	Apr 2013	0.000		-		0.000	0.000	1.055	
Primary HW Dev-CSM	SS/CPFF	Creare Inc.:Hanover, NH	1.604	0.141	Mar 2012	0.000		0.000		-		0.000	0.000	1.745	1.745
System Eng-CSM	WR	NAWCAD:Lakehurst, NJ	0.462	0.129	Nov 2011	0.000		0.000		-		0.000	0.000	0.591	
Shipboard Integration-CSM	WR	NAWCAD:Lakehurst, NJ	0.000	0.000		0.198	Dec 2012	0.066	Nov 2013	-		0.066	0.000	0.264	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HW Dev-Modern IFLOLS	WR	NAWCAD:Lakehurst, NJ	3.124	0.914	Nov 2011	0.000		0.000		-		0.000	0.000	4.038	
System Eng-Modern IFLOLS	WR	NAWCAD:Lakehurst, NJ	1.366	0.206	Nov 2011	0.000		0.000		-		0.000	0.000	1.572	
Primary HW Dev-Modern IMOVLAS	WR	NAWCAD:Lakehurst, NJ	0.000	0.000		0.720	Dec 2012	0.956	Nov 2013	-		0.956	1.086	2.762	
System Eng-Modern IMOVLAS	WR	NAWCAD:Lakehurst, NJ	0.000	0.000		0.096	Dec 2012	0.298	Nov 2013	-		0.298	0.254	0.648	
Primary HW Dev-SLMP	WR	NAWCAD:Lakehurst, NJ	2.581	0.000		3.290	Jan 2013	0.927	Nov 2013	-		0.927	6.171	12.969	
Prior Year Cost No Longer Funded in FYDP	Various	Various:Various	25.694	0.000		0.000		0.000		-		0.000	0.000	25.694	
		Subtotal	325.672	35.731		42.755		35.046		0.000		35.046	23.752	462.956	

Remarks

Note: $1.05M (10.5%) in Award Fees have been paid out of the $10M Award Fee Pool; the contractor Gen Atomics, San Diego, CA has waived remaining Award Fees. Target Value of Contract for Primary HW Dev-AAG is less than Total Cost due to the Cost Growth of the Contract.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ILS-AAG	WR	NAWCAD:Lakehurst, NJ	7.790	1.354	Nov 2011	3.329	Nov 2012	2.977	Nov 2013	-		2.977	Continuing	Continuing	Continuing
ILS-ADMACS BLK 3	WR	NAWCAD:Lakehurst, NJ	0.283	0.230	Nov 2011	0.259	Jan 2013	0.060	Nov 2013	-		0.060	0.000	0.832	
ILS-CSM	WR	NAWCAD:Lakehurst, NJ	0.132	0.084	Nov 2011	0.000		0.040	Nov 2013	-		0.040	0.000	0.256	
ILS-Modern IFLOLS	WR	NAWCAD:Lakehurst, NJ	0.125	0.133	Nov 2011	0.000		0.000		-		0.000	0.000	0.258	
ILS-Modern IMOVLAS	WR	NAWCAD:Lakehurst, NJ	0.000	0.000		0.090	Dec 2012	0.258	Nov 2013	-		0.258	0.363	0.711	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ILS-SLMP	WR	NAWCAD:Lakehurst, NJ	0.092	0.000		0.096	Jan 2013	0.098	Nov 2013	-		0.098	0.306	0.592	
Studies & Analysis-SLMP	WR	NAWCAD:Lakehurst, NJ	0.000	3.774	Nov 2011	2.220	Jan 2013	2.428	Nov 2013	-		2.428	7.309	15.731	
Prior Year Cost No Longer Funded in FYDP	Various	Various:Various	0.250	0.000		0.000		0.000		-		0.000	0.000	0.250	
		Subtotal	8.672	5.575		5.994		5.861		0.000		5.861			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval-AAG	WR	NAWCAD:Lakehurst, NJ	11.812	4.471	Nov 2011	4.996	Dec 2012	19.830	Dec 2013	-		19.830	9.638	50.747	
Operational T&E-AAG	WR	Various:Various	1.313	0.240	Nov 2011	0.250	Dec 2012	0.250	Dec 2013	-		0.250	0.250	2.303	
Dev Test Lab-ADMACS BLK 3	WR	NAWCAD:Lakehurst, NJ	0.000	0.000		0.534	Jan 2013	0.131	Nov 2013	-		0.131	0.000	0.665	
Integrated Testing ADMACS BLK 3	WR	NAWCAD:Lakehurst, NJ	0.000	0.000		0.500	Jan 2013	0.000		-		0.000	0.000	0.500	
Dev Test & Eval-EMALS Tech Insert	WR	NAWCAD:Lakehurst, NJ	0.025	0.000		0.026	Apr 2013	0.000		-		0.000	0.000	0.051	
Performance Test-CSM	WR	NAWCAD:Lakehurst, NJ	1.655	0.146	Nov 2011	0.000		0.146	Nov 2013	-		0.146	0.000	1.947	
Dev Test & Eval-Modern IFLOLS	WR	NAWCAD:Lakehurst, NJ	0.324	0.347	Nov 2011	0.000		0.000		-		0.000	0.000	0.671	
Integrated Testing-Modern IMOVLAS	WR	NAWCAD:Lakehurst, NJ	0.000	0.000		0.000		0.150	Nov 2013	-		0.150	0.301	0.451	
Materials/Validation Testing-SLMP	WR	NAWCAD:Lakehurst, NJ	0.000	1.194	Nov 2011	0.570	Jan 2013	8.008	Nov 2013	-		8.008	Continuing	Continuing	Continuing
Prior Year Cost No Longer Funded in FYDP	Various	Various:Various	0.102	0.000		0.000		0.000		-		0.000	0.000	0.102	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	15.231	6.398		6.876		28.515		0.000		28.515			

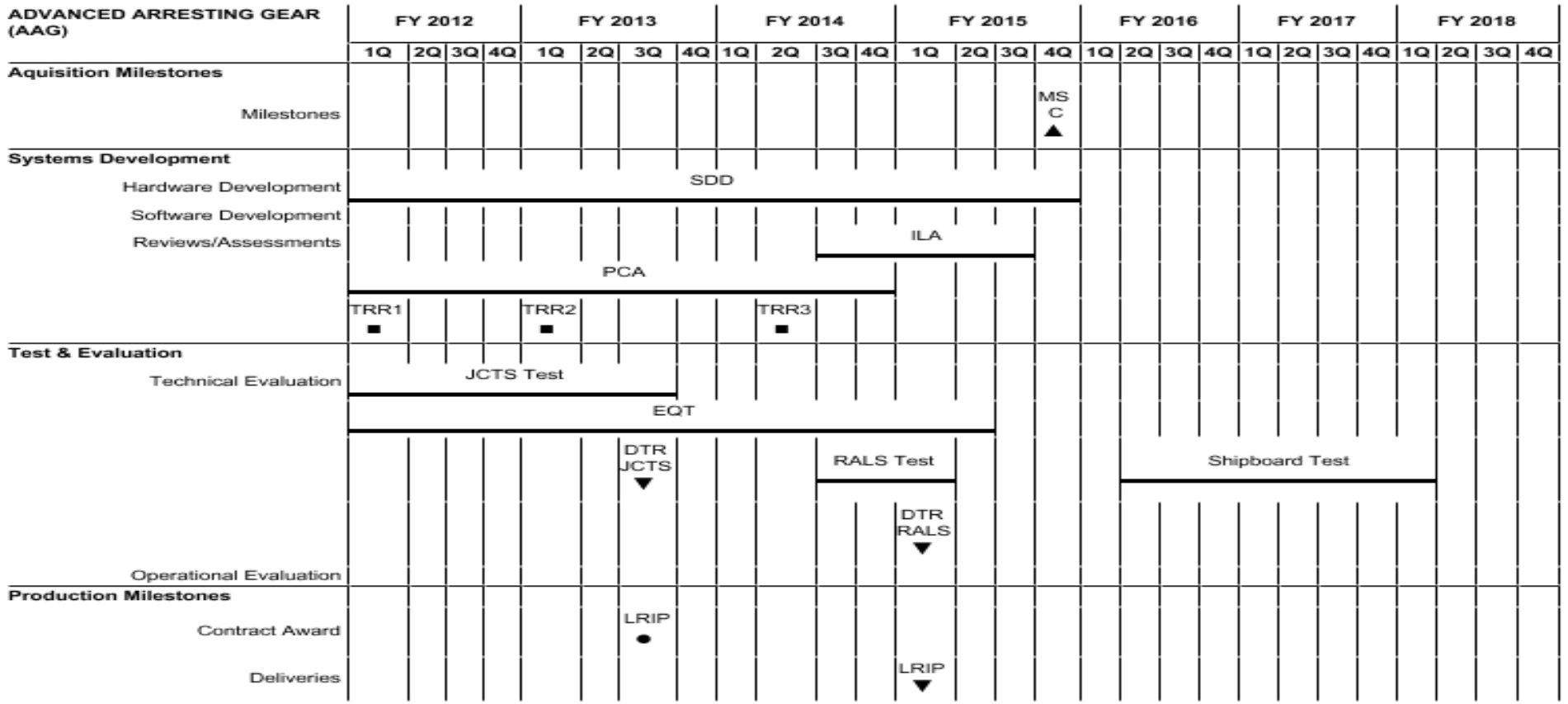
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prgm Mgnt Supt	C/CPFF	Sierra:California, MD	0.629	0.163	Dec 2011	0.170	Dec 2012	0.170	Dec 2013	-		0.170	0.800	1.932	1.932
Travel	Reqn	NAVAIR:Pax River, MD	0.321	0.036	Nov 2011	0.031	Nov 2012	0.023	Nov 2013	-		0.023	0.180	0.591	
		Subtotal	0.950	0.199		0.201		0.193		0.000		0.193	0.980	2.523	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	350.525	47.903		55.826		69.615		0.000		69.615			

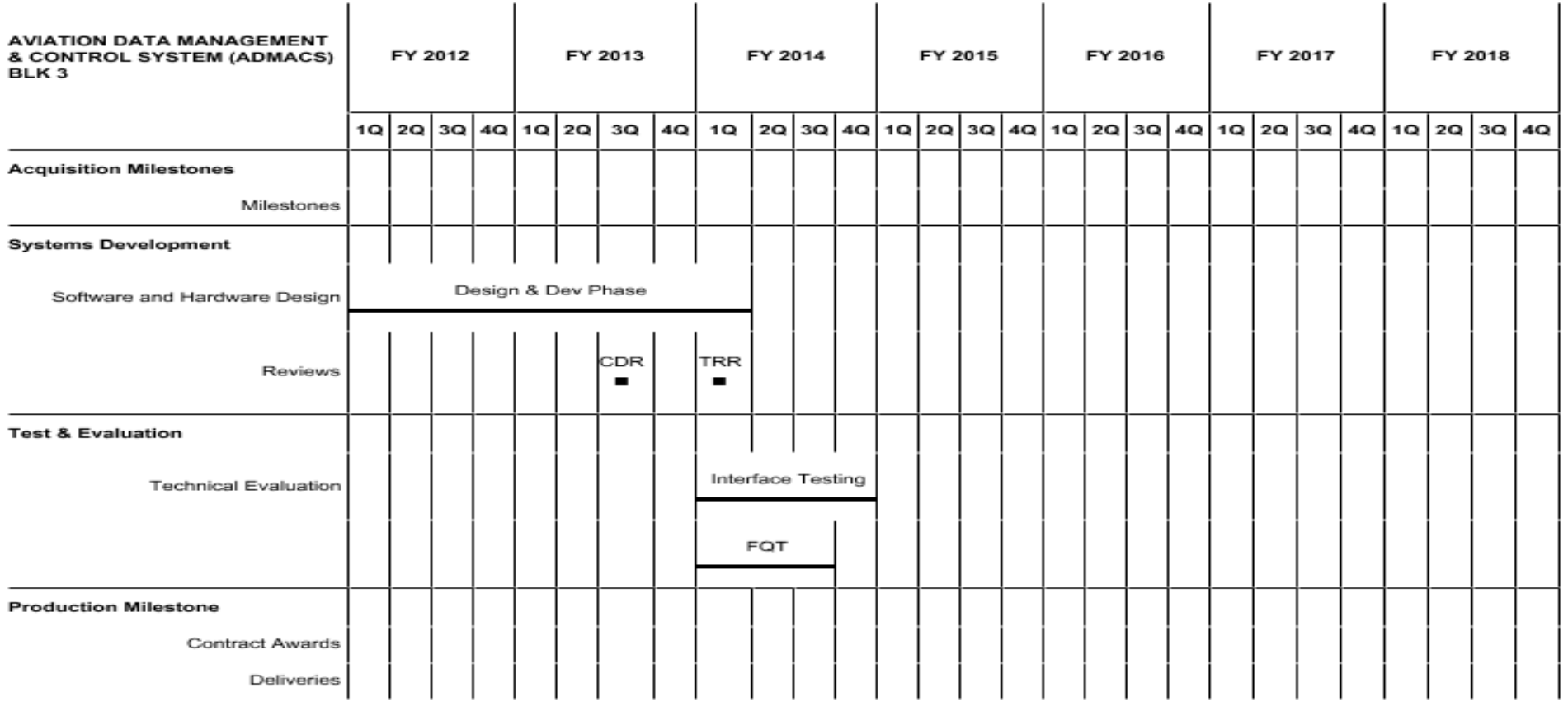
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604512N: *Shipboard Aviation Systems*	**PROJECT** 2232: *CV/CVN Launch and Recover*



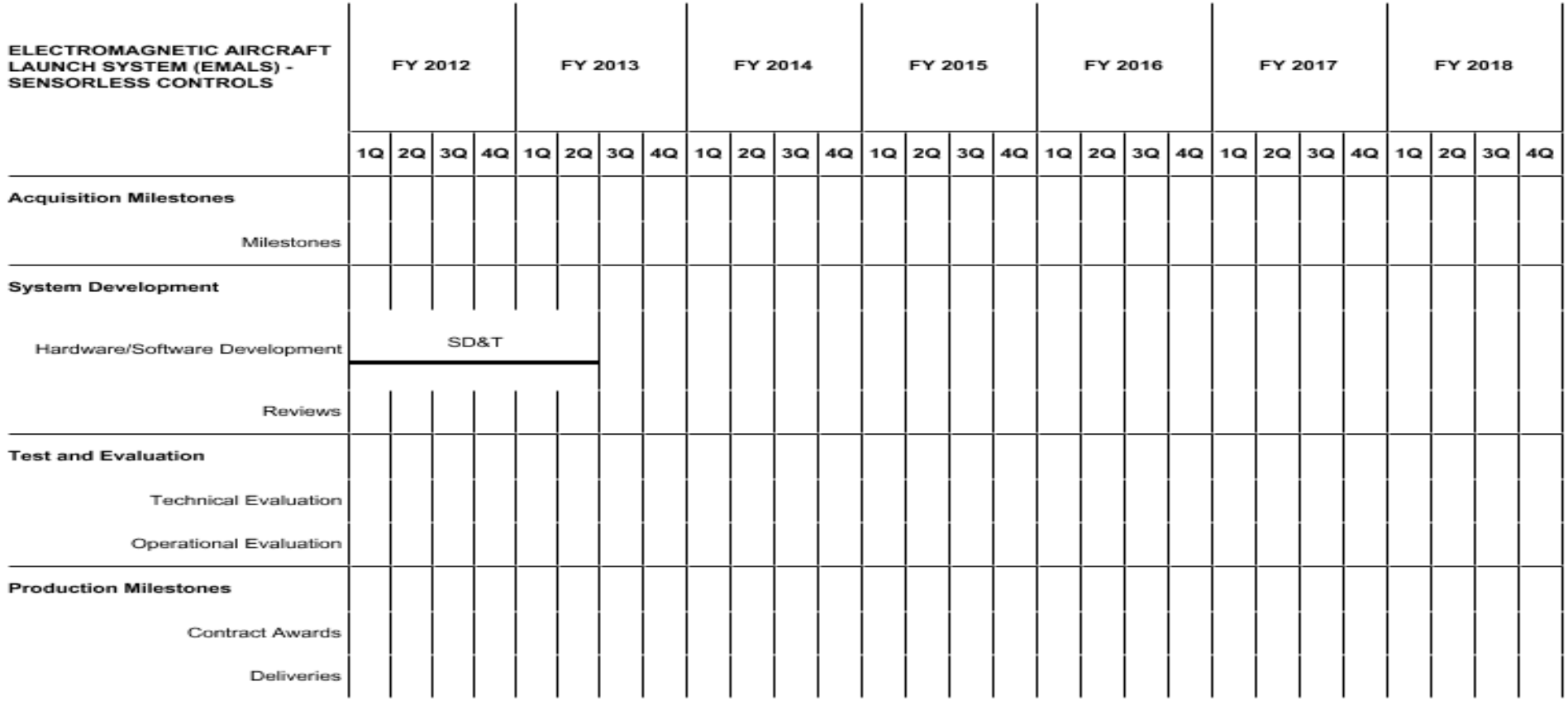
2014PB - 0604512N - 2232

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*



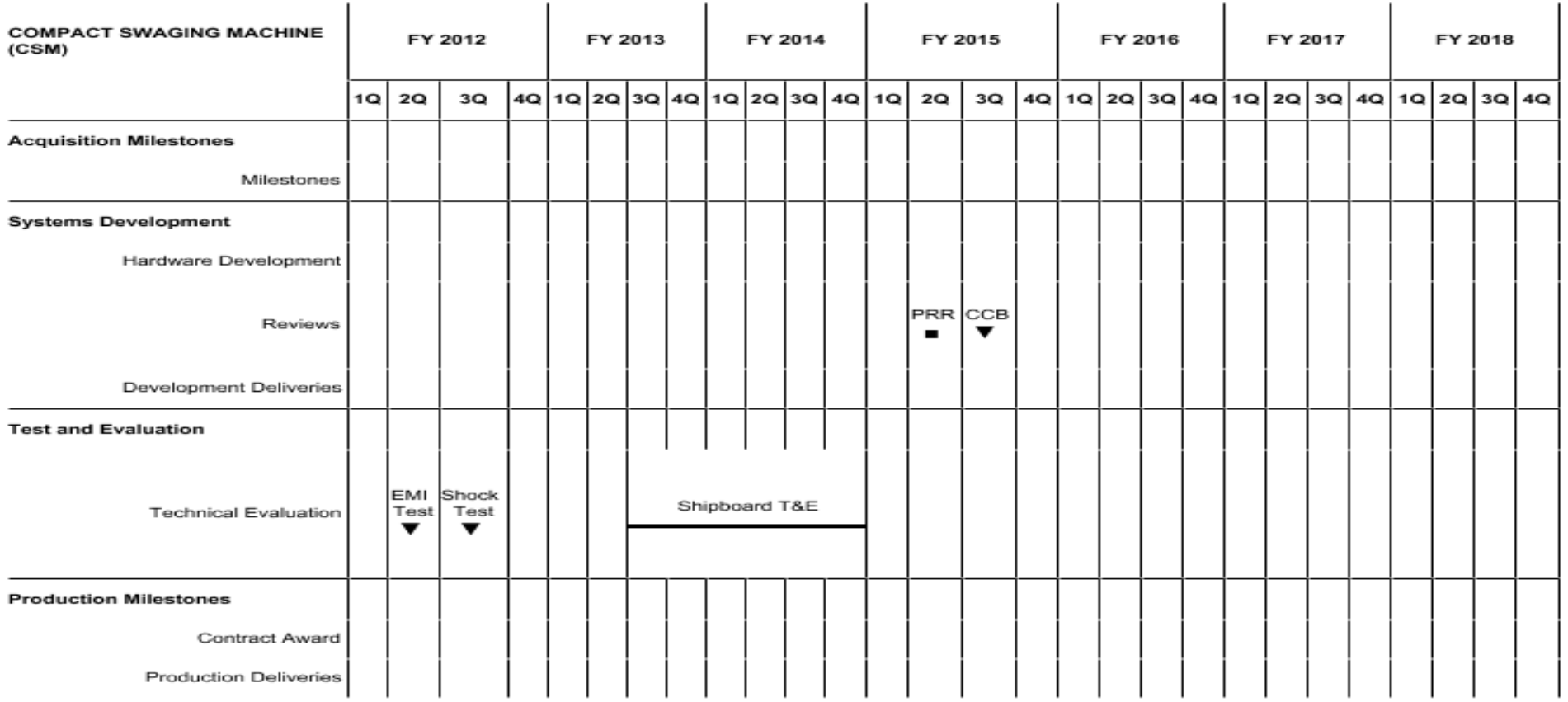
2014PB - 0604512N - 2232

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*



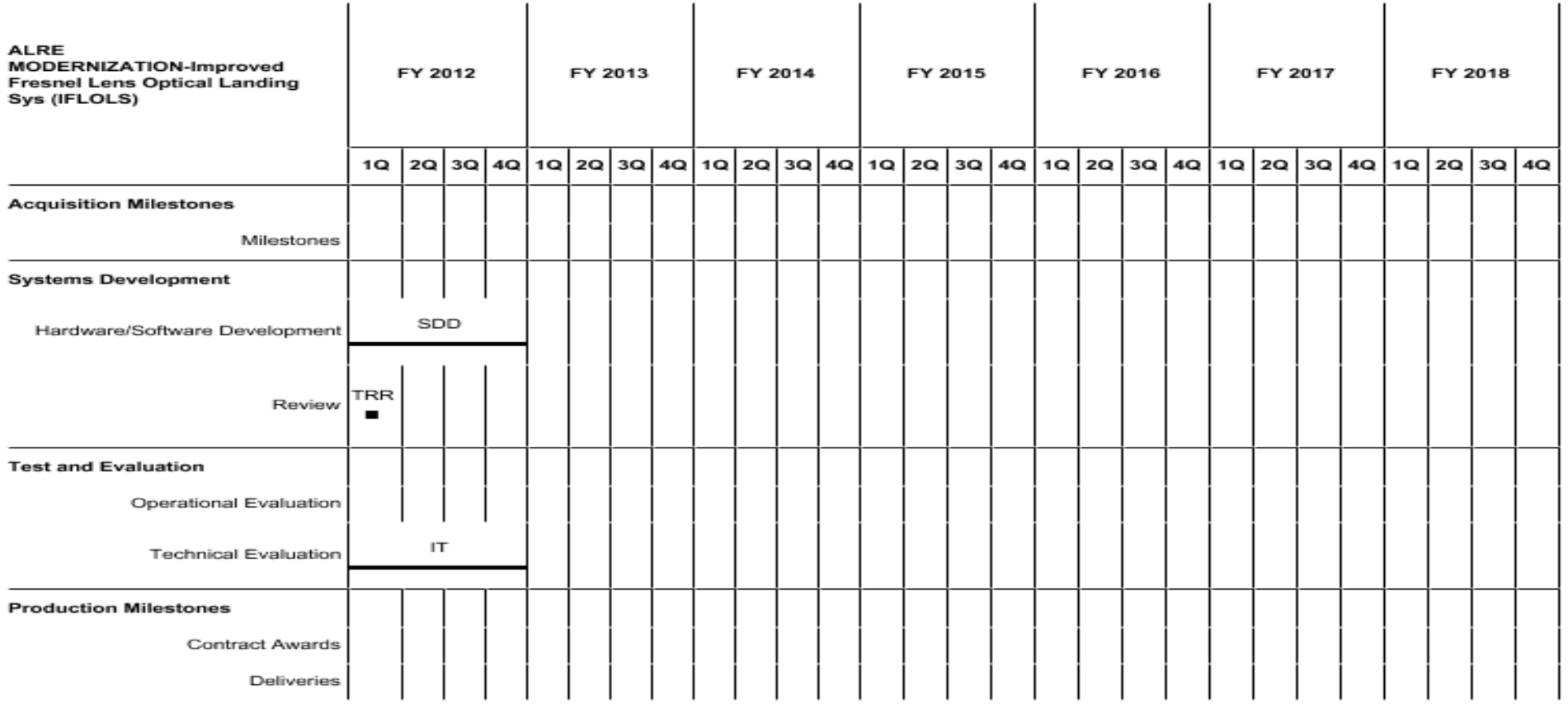
2014PB - 0604512N - 2232

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*



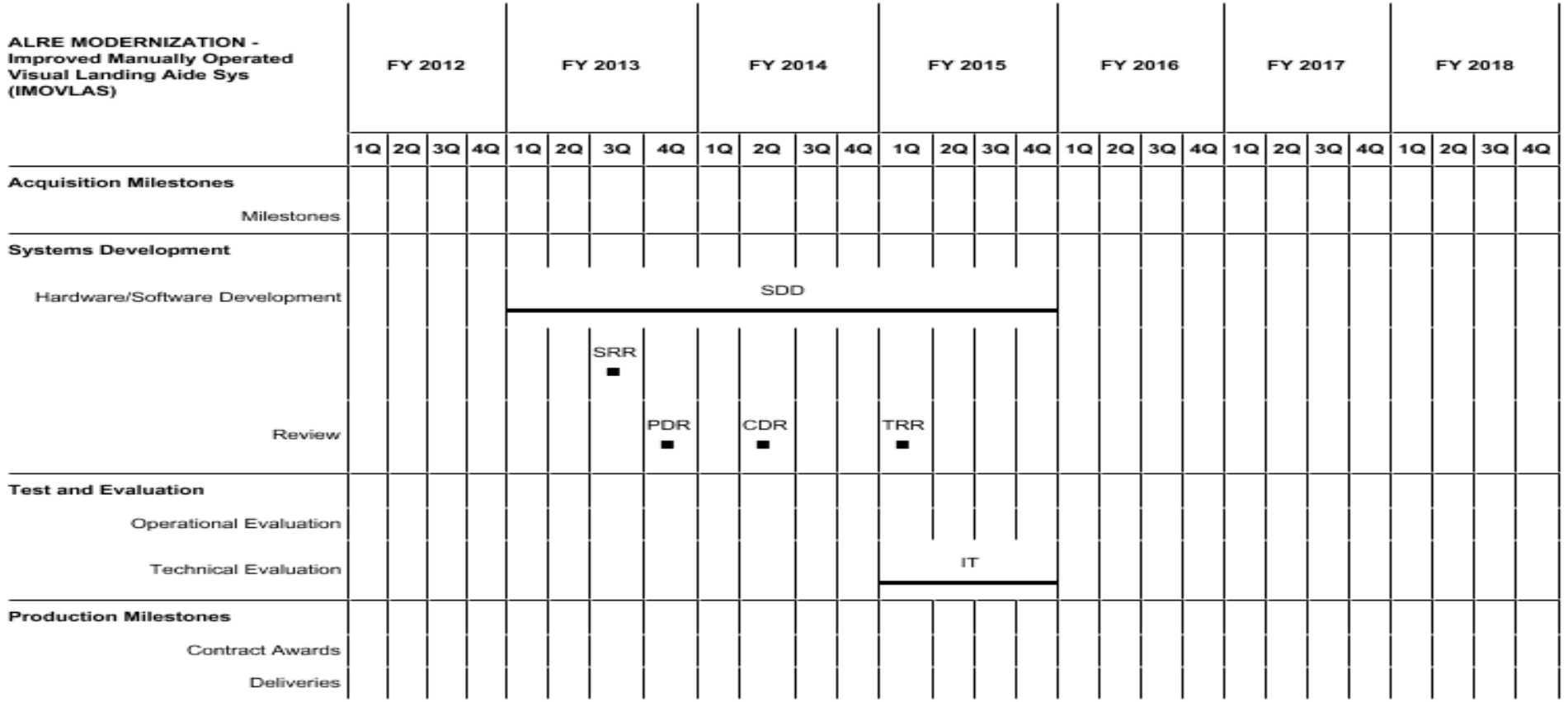
2014PB - 0604512N - 2232

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*



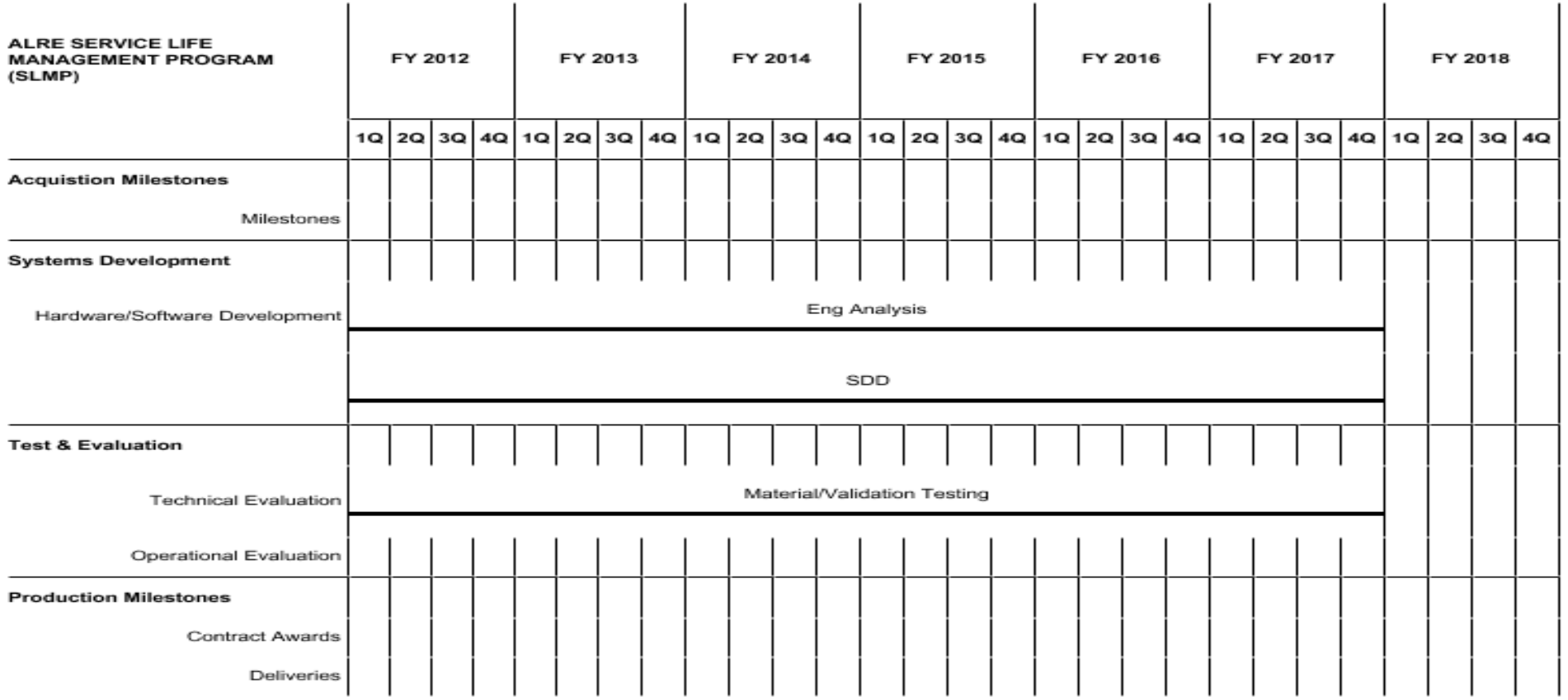
2014PB - 0604512N - 2232

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*



2014PB - 0604512N - 2232

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*



2014PB - 0604512N - 2232

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ADVANCED ARRESTING GEAR (AAG)				
Aquisition Milestones: Milestones: Milestone C	4	2015	4	2015
Systems Development: Hardware Development: System Design & Development (SDD Phase)	1	2012	4	2015
Systems Development: Reviews/Assessments: Integrated Logistic Assessment (ILA)	3	2014	3	2015
Systems Development: Reviews/Assessments: Physical Configuration Assessment (PCA)	1	2012	4	2014
Systems Development: Reviews/Assessments: Technical Readiness Review (TRR1) JCTS Commissioning Deadload	1	2012	1	2012
Systems Development: Reviews/Assessments: Technical Readiness Review (TRR2) JCTS Performance Deadload	1	2013	1	2013
Systems Development: Reviews/Assessments: Technical Readiness Review (TRR3) RALS	2	2014	2	2014
Test & Evaluation: Technical Evaluation: Jet Car Test Site (JCTS) Test	1	2012	3	2013
Test & Evaluation: Technical Evaluation: Environmental Qualification Test (EQT)	1	2012	2	2015
Test & Evaluation: Technical Evaluation: Runway Arrested Landing Site Test (RALS)	3	2014	1	2015
Test & Evaluation: Technical Evaluation: Shipboard Test / OPEVAL	2	2016	1	2018
Test & Evaluation: Technical Evaluation: JCTS Development Test Report (DTR)	3	2013	3	2013
Test & Evaluation: Technical Evaluation: RALS Development Test Report (DTR)	1	2015	1	2015
Production Milestones: Contract Award: Low Rate Initial Production (LRIP) OPN	3	2013	3	2013
Production Milestones: Deliveries: Low Rate Initial Production (LRIP) OPN Qty 3	1	2015	1	2015
AVIATION DATA MANAGEMENT & CONTROL SYSTEM (ADMACS) BLK 3				
Systems Development: Software and Hardware Design: Design and Development Phase	1	2012	1	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Systems Development: Reviews: Critical Design Review (CDR)	3	2013	3	2013
Systems Development: Reviews: Test Readiness Review (TRR)	1	2014	1	2014
Test & Evaluation: Technical Evaluation: Interface Testing	1	2014	4	2014
Test & Evaluation: Technical Evaluation: Functional Qualification Testing	1	2014	3	2014
ELECTROMAGNETIC AIRCRAFT LAUNCH SYSTEM (EMALS) - SENSORLESS CONTROLS				
System Development: Hardware/Software Development: System Desgin, Development and Testing	1	2012	2	2013
COMPACT SWAGING MACHINE (CSM)				
Systems Development: Reviews: Program Readiness Review (PRR)	2	2015	2	2015
Systems Development: Reviews: Configuration Control Board (CCB)	3	2015	3	2015
Test and Evaluation: Technical Evaluation: Electromagnetic Interference (EMI)	2	2012	2	2012
Test and Evaluation: Technical Evaluation: Shock Vibration Test	3	2012	3	2012
Test and Evaluation: Technical Evaluation: Shipboard Test & Eval	3	2013	4	2014
ALRE MODERNIZATION-Improved Fresnel Lens Optical Landing Sys (IFLOLS)				
Systems Development: Hardware/Software Development: Design and Development	1	2012	4	2012
Systems Development: Review: Test Readiness Review (TRR)	1	2012	1	2012
Test and Evaluation: Technical Evaluation: Integrated Test	1	2012	4	2012
ALRE MODERNIZATION - Improved Manually Operated Visual Landing Aide Sys (IMOVLAS)				
Systems Development: Hardware/Software Development: Design and Development	1	2013	4	2015
Systems Development: Hardware/Software Development: System Readiness Review	3	2013	3	2013
Systems Development: Review: Preliminary Design Review (PDR)	4	2013	4	2013
Systems Development: Review: Critical Design Review (CDR)	2	2014	2	2014
Systems Development: Review: Test Readiness Review (TRR)	1	2015	1	2015
Test and Evaluation: Technical Evaluation: Integrated Test	1	2015	4	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604512N: *Shipboard Aviation Systems*	PROJECT 2232: *CV/CVN Launch and Recover*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ALRE SERVICE LIFE MANAGEMENT PROGRAM (SLMP)				
Systems Development: Hardware/Software Development: Engineering Analysis	1	2012	4	2017
Systems Development: Hardware/Software Development: System Design and Development	1	2012	4	2017
Test & Evaluation: Technical Evaluation: Material and Validation Testing	1	2012	4	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604518N: *Combat Information Center Conv*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	45.148	3.315	0.918	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	49.381
3094: *USW Decision Support*	45.148	3.315	0.918	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	49.381

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The objective of this Program Element (PE), under Project 3094, is to provide capabilities to shorten command and control (C2) decision processes for detection-to-engagement across multiple platforms, including those with low-bandwidth communications or intermittent connectivity. The Undersea Warfare Decision Support System (USW-DSS) decision support tool uses a Service Orientated Architecture (SOA) encompassing existing communication links, networks, and contact pictures comprised of sensor data from air, surface, submarine, theater, and surveillance platforms to connect sensors and weapons. The capabilities delivered by USW-DSS are critical not only for the Sea Combat Commander (SCC) but also for the Theater USW Commander (TUSWC) and Anti Submarine Warfare Commander (ASWC) to fulfill the requirement for an integrated capability to plan, conduct, and coordinate USW operations across multiple ASW platforms. USW-DSS will provide common and improved visualization, integrated USW platform sensor data sharing, reduced data entry, improved sensor performance predictions, data fusion, and reduced redundancy across USW Tactical Decision Aids (TDA). The program will provide a greater understanding of the undersea battle space by allowing the entire force (carrier/expeditionary strike group, theater, or other) to have a common and thorough understanding of the battle space with characterized uncertainties.

USW-DSS Build 2 will be hosted on the Integrated Shipboard Network System (ISNS) as one of the first Early Adopters, leveraging initial Service Oriented Architecture (SOA) Reference Implementation. USW-DSS will be hosted on the Consolidated Afloat Networks and Enterprise Services (CANES) architecture, which will be fully SOA enabled. Build 2 Release 3 (B2R3), in response to Fleet requests, will provide improved and additional functionality and increased stability/reliability.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	3.400	0.918	0.000	-	0.000
Current President's Budget	3.315	0.918	0.000	-	0.000
Total Adjustments	-0.085	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.085	0.000			

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604518N: *Combat Information Center Conv*

Change Summary Explanation

Technical: Not applicable.

Schedule: Due to a reprioritization of requirements based on results of the Resources, Requirements Review Board (R3B) and the Sponsor's Program Proposal (SPP), USW-DSS will enter the sustainment phase after operational test and evaluation events in early FY13. USW-DSS B2R3 will provide an incremental update of Build 2 to field as much capability to the Fleet as possible.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604518N: *Combat Information Center Conv*	PROJECT 3094: *USW Decision Support*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3094: *USW Decision Support*	45.148	3.315	0.918	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	49.381
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Project 3094 will develop the USW-DSS that will provide ASW C2 capabilities which enable the CNO vision for ASW Superiority using a "coordinated, networked force of submarines, surface ships, aircraft, and Integrated Undersea Surveillance System (IUSS) assets" with "common and unambiguous views that yield operational and tactical situational awareness in the undersea environment."

USW-DSS provides capabilities to shorten C2 decision processes for detection-to-engagement across multiple platforms, including those with low-bandwidth communications or intermittent connectivity. The USW-DSS decision support tool uses a SOA encompassing existing communication links, networks, and contact pictures comprised of sensor data from air, surface, submarine, theater, and surveillance platforms to connect sensors and weapons. The capabilities delivered by USW-DSS are critical not only for the SCC but also for the TUSWC and ASWC to fulfill the requirement for an integrated capability to plan, conduct, and coordinate USW operations across multiple ASW platforms. USW-DSS will provide common and improved visualization, integrated USW platform sensor data sharing, reduced data entry, improved sensor performance predictions, data fusion, and reduced redundancy across USW TDAs. The program will provide a greater understanding of the undersea battle space by allowing the entire force (carrier/expeditionary strike group, theater, or other) to have a common and thorough understanding of the battle space with characterized uncertainties.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: USW-DSS Build 2 Development / Integration	1.480	0.000	0.000
Articles:	0		
Description: Integrated and tested additional USW-DSS tools/capabilities including Common Tactical Picture, Platform Data Fusion Integration, Cross-Platform Data Fusion, Automated Asset Allocation, Asset/Threat State Information, Vulnerability Analysis enhancement, ASW Track Management, Automated Re-planning, Engagement Target Pairing and improved Theater USW capabilities and incorporate visualization/display service.			
FY 2012 Accomplishments: Addressed software change requests from FY11 and FY12 Development Tests in preparation for FY13 Operational Evaluation.			
Title: USW-DSS Build 2 Release 3 DT / OT	1.835	0.918	0.000
Articles:	0	0	

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604518N: *Combat Information Center Conv*	PROJECT 3094: *USW Decision Support*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Analyzed results of FY11 Development Test. Completed USW-DSS Build 2 Release 3 Development Tests (2) and subsequent assessments of the results. ***FY 2013 Plans:*** Complete USW-DSS Build 2 Release 3 Operational Evaluation and assessment.			
Accomplishments/Planned Programs Subtotals	3.315	0.918	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2176: *USW Support Equipment (Related Portion)*	3.429	2.057	2.690		2.690	2.881	2.865	2.899	2.936	Continuing	Continuing

Remarks

D. Acquisition Strategy

- Hardware/Software integration contractor funded through SBIR Phase III contract.

E. Performance Metrics

- Reduce the Detect-to-Engage timeline, false contact rate, and false alarm rate by employing a service-orientated architecture between the sensors and weapons.
- ASW Search Plan/Mission Planning reduced from 6 hours to 1 hour between USW-DSS Build 1 and Build 2.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604518N: *Combat Information Center Conv*	PROJECT 3094: *USW Decision Support*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary H/W & S/W Development	WR	NAWC/Pax River:MD	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	
Primary H/W & S/W Development	WR	NSWC/Dahlgren:VA	0.501	0.000		0.000		0.000		-		0.000	0.000	0.501	
Primary H/W & S/W Development	WR	NSWC/ Carderock:MD	3.296	0.275	Nov 2011	0.000		0.000		-		0.000	0.000	3.571	
Primary H/W & S/W Development	WR	NUWC/Keyport:WA	2.962	0.175	Jan 2012	0.085	Apr 2013	0.000		-		0.000	0.000	3.222	
Primary H/W & S/W Development	WR	NUWC/Newport:RI	9.847	0.283	Jan 2012	0.000		0.000		-		0.000	0.000	10.130	
Primary H/W & S/W Development	WR	SSC/San Diego:CA	0.850	0.000		0.000		0.000		-		0.000	0.000	0.850	
Primary H/W & S/W Development	WR	VAR1:VAR*	0.894	0.000		0.000		0.000		-		0.000	0.000	0.894	
Primary H/W & S/W Development	C/CPFF	Adaptive Methods:VA	6.263	0.275	Dec 2011	0.000		0.000		-		0.000	0.000	6.538	
Primary H/W & S/W Development	C/CPFF	JHU/APL:MD	2.725	0.000		0.000		0.000		-		0.000	0.000	2.725	
Primary H/W & S/W Development	C/CPFF	Progeny:VA	9.209	0.350	Jan 2012	0.000		0.000		-		0.000	0.000	9.559	
Primary H/W & S/W Development	C/CPFF	VAR2:VAR*	4.983	0.082	Jan 2012	0.000		0.000		-		0.000	0.000	5.065	
		Subtotal	41.830	1.440		0.085		0.000		0.000		0.000	0.000	43.355	

Remarks

*Consists of multiple performing activities with funding for each not greater than $1M per year.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604518N: *Combat Information Center Conv*	PROJECT 3094: *USW Decision Support*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
At-Sea Test and Evaluation	C/CPFF	Adaptive Methods:VA	0.000	0.750	Dec 2011	0.290	Jan 2013	0.000		-		0.000	0.000	1.040	
At-Sea Test and Evaluation	C/CPFF	Progeny:VA	0.000	0.665	Jan 2012	0.153	Dec 2012	0.000		-		0.000	0.000	0.818	
At-Sea Test and Evaluation	WR	VAR:VAR	1.500	0.350	Jan 2012	0.365	Nov 2012	0.000		-		0.000	0.000	2.215	
		Subtotal	1.500	1.765		0.808		0.000		0.000		0.000	0.000	4.073	

Remarks

*Consists of multiple performing activities with funding for each not greater than $1 million per year.

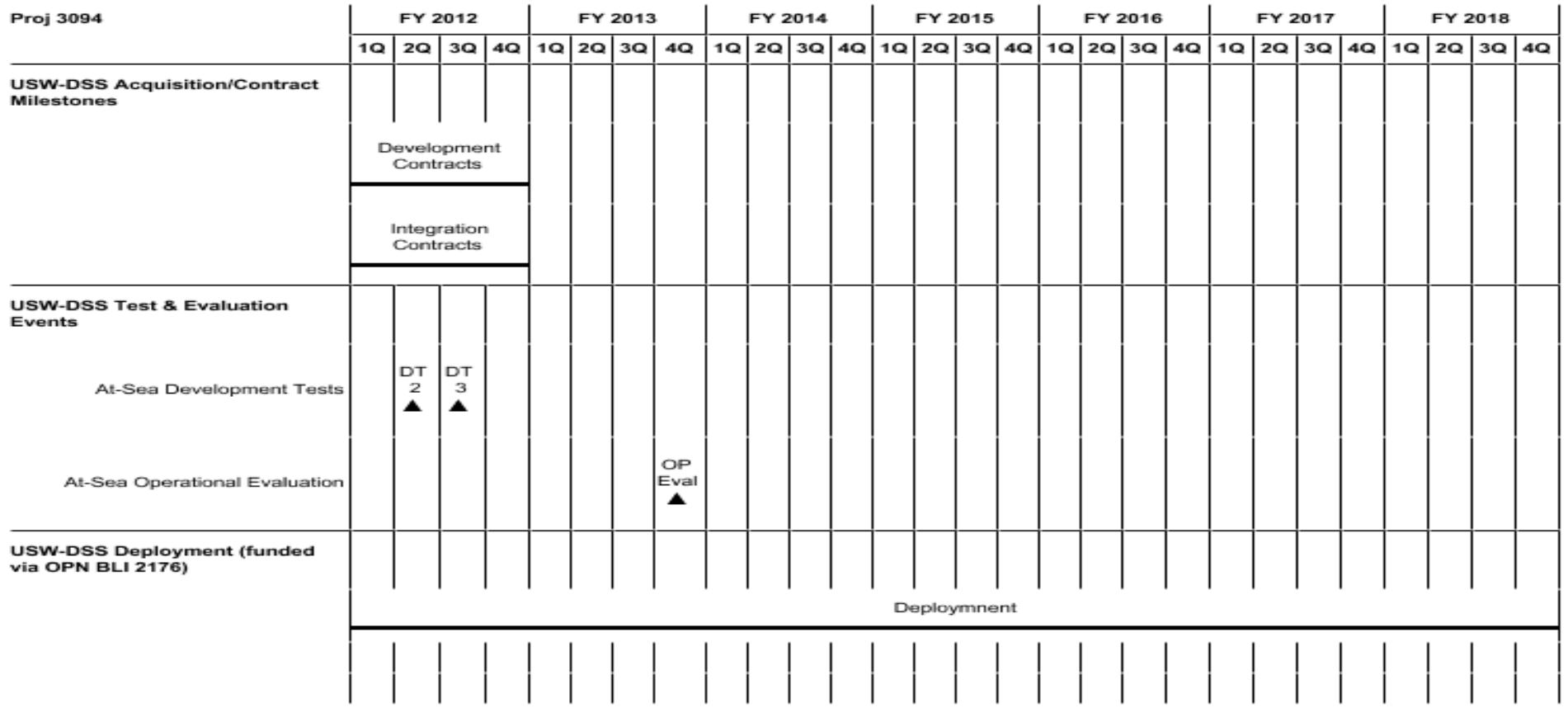
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPAF	BAE Systems:MD	1.818	0.110	Feb 2012	0.025	Apr 2013	0.000		-		0.000	0.000	1.953	
		Subtotal	1.818	0.110		0.025		0.000		0.000		0.000	0.000	1.953	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	45.148	3.315		0.918		0.000		0.000		0.000	0.000	49.381	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604518N: *Combat Information Center Conv*	PROJECT 3094: *USW Decision Support*



2014PB - 0604518N - 3094

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604518N: *Combat Information Center Conv*	**PROJECT** 3094: *USW Decision Support*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3094				
USW-DSS Acquisition/Contract Milestones: USW-DSS Development Contracts	1	2012	4	2012
USW-DSS Acquisition/Contract Milestones: Software/Hardware Contract via SBIR Phase III	1	2012	4	2012
USW-DSS Test & Evaluation Events: At-Sea Development Tests: At-Sea Development Test (2)	2	2012	2	2012
USW-DSS Test & Evaluation Events: At-Sea Development Tests: At-Sea Development Test (3)	3	2012	3	2012
USW-DSS Test & Evaluation Events: At-Sea Operational Evaluation: At-Sea Operational Evaluation	3	2013	3	2013
USW-DSS Deployment (funded via OPN BLI 2176): USW-DSS Deployment/ Installation with ISNS/CANES (funded via OPN BLI 2176)	1	2012	4	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	2,090.950	109.117	165.230	121.566	-	121.566	252.117	278.712	270.864	143.683	Continuing	Continuing
1947: *New Design SSN HM&E*	1,330.856	58.364	33.568	29.781	-	29.781	62.060	38.027	28.376	29.056	Continuing	Continuing
1950: *New Design SSN Combat Sys Dev*	738.538	32.821	29.065	29.876	-	29.876	37.442	38.217	39.841	36.725	Continuing	Continuing
3062: *Submarine Multi-Mission Team Trainer*	21.556	2.932	2.729	2.789	-	2.789	2.857	2.906	2.955	3.010	Continuing	Continuing
4500: *VIRGINIA Payload Module*	0.000	0.000	99.868	59.120	-	59.120	149.758	199.562	199.692	74.892	Continuing	Continuing
9999: *Congressional Adds*	0.000	15.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	15.000
MDAP/MAIS Code(s): 516												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The U.S. Navy must maintain a submarine fleet that is of sufficient capability and numbers to defend American interests. The VIRGINIA Class Submarine, formerly the New Attack Submarine (New SSN), is being designed to fulfill this need. It will counter the potential threats of the next century in a multi- mission capable submarine that has the ability to provide covert, sustained combat presence in denied waters. The primary goal of the program is to develop an affordable yet capable submarine by evaluating a broad range of system and technology alternatives, and pursuing cost reduction, producibility improvement, and technical risk management. This Program Element (PE) provides the technology, prototype components, and systems engineering needed to design and construct the VIRGINIA Class Submarine and build its Command, Control, Communications, and Intelligence (C3I) System. This PE directly supports the following VIRGINIA Class Submarine missions: (1) covert strike warfare; (2) anti-submarine warfare; (3) covert intelligence collection/surveillance, indication and warning, and electronic warfare; (4) anti-surface ship warfare; (5) special warfare; (6) mine warfare; and (7) battle group support.

Project 9999: FY11 Congressional Add includes funding for Small Business Technology Insertion.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	112.158	165.230	268.535	-	268.535
Current President's Budget	109.117	165.230	121.566	-	121.566
Total Adjustments	-3.041	0.000	-146.969	-	-146.969
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.750	0.000			
• SBIR/STTR Transfer	-2.291	0.000			
• Program Adjustments	0.000	0.000	-55.931	-	-55.931
• Rate/Misc Adjustments	0.000	0.000	-91.038	-	-91.038

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Project: 9999: *Congressional Adds*		
Congressional Add: *New Design SSN SBIR (Cong)*	15.000	-
Congressional Add Subtotals for Project: 9999	15.000	0.000
Congressional Add Totals for all Projects	15.000	0.000

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1947: *New Design SSN HM&E*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1947: *New Design SSN HM&E*	1,330.856	58.364	33.568	29.781	-	29.781	62.060	38.027	28.376	29.056	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project encompasses all the ship system development efforts for the VIRGINIA Class Submarine and the Technology Insertion Program for reducing cost and upgrading performance of future hulls by virtue of improvements in ship systems. Technology development implementation and logistics for developmental items, and VIRGINIA Class test & evaluation are included. This project is essential for pursuit of high priority Design For Affordability (DFA) and Reduced Total Ownership Cost (RTOC) initiatives while achieving platform requirements and providing mission capability and flexibility. The thrust of these efforts will be to develop and apply multiple advanced system technologies which are integrated into the design of the VIRGINIA Class Submarine. Technologies developed in this program will be considered for applicability to the Ohio Replacement Program (ORP) for commonality opportunities. New technologies are being transitioned from industry and government research and development programs where doing so offers substantial performance improvement and/or affordability payoffs. Transition opportunities include those from the Defense Advanced Research Projects Agency (DARPA) Sensors & Payloads program and Office of Naval Research (ONR) Future Naval Capabilities Program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: New Design SSN HM&E	52.213	28.116	10.814
Articles:	0	0	0

FY 2012 Accomplishments:

Continue block upgrades of Ship Control Algorithms and software. Continue software development for Advanced Electromagnetic Silencing capability. Complete design and development of Block III Cost Reduction components and technologies including, for example, Large Area Bow Array, payload tubes, hatches, reverse osmosis units, low cost sound isolation coupling, and Integrated Low Pressure Electrolyzer. Continue transition of products from the Office of Naval Research Manufacturing Technology Program (MANTECH). Continue development of concepts and technologies for Block IV Reduced Total Ownership Cost (RTOC). Address emergent reliability issues associated with HM&E components. Initiate Obsolescence Redesign for Block IV.

FY 2013 Plans:

Continue block upgrades of Ship Control Algorithms and software. Complete software development for Advanced Electromagnetic Silencing capability. Continue transition of products from the Office of Naval Research Manufacturing Technology Program (MANTECH). Continue development of concepts and technologies for Block IV Reduced Total Ownership Cost (RTOC) and

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1947: *New Design SSN HM&E*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
finalize Block IV technical baseline. Address emergent reliability issues associated with HM&E components. Initiate Obsolescence Redesign for Block IV. ***FY 2014 Plans:*** Continue block upgrades of Ship Control Algorithms and software. Continue transition of products from the Office of Naval Research Manufacturing Technology Program (MANTECH). Continue development of concepts and technologies for Block IV Reduced Total Ownership Cost (RTOC) and Block IV technical baseline. Address emergent reliability issues associated with HM&E components. Initiate Obsolescence Redesign for Block IV.			
Title: TEST AND EVALUATION	6.151	5.452	18.967
Articles:	0	0	0
FY 2012 Accomplishments: Continue responding to SSN774 OPEVAL, Arctic, and TI-08/APB-09 deficiencies identified by COTF and support OPNAV in adjudication of DOT&E recommendations, as well as prepare for future FOT&E events. Develop detailed test plans/procedures in preparation for DDS FDT&E and FOT&E in FY13. ***FY 2013 Plans:*** Continue responding to SSN774 OPEVAL, Arctic, and TI-08/APB-09 deficiencies identified by COTF and support OPNAV in adjudication of DOT&E recommendations, as well as prepare for future FOT&E events. Conduct DDS FDT&E/FOT&E, and post-test analysis and reporting. Initiate developmental test plans/procedures to test the first Block III bow re-design. ***FY 2014 Plans:*** Continue responding to SSN774 OPEVAL, Arctic, and TI-08/APB-09 deficiencies identified by COTF and support OPNAV in adjudication of DOT&E recommendations, as well as prepare for future FOT&E events. Finalize detailed plan to test a VIRGINIA Class in a Low Frequency Active (LFA) environment and execute LFA FOT&E. Finalize detailed developmental test plans/ procedures to test the first Block III bow re-design. Develop a detailed plan and conduct an operational assessment of VIRGINIA Class during CCSM Off-Hull Assembly & Test Site (COATS). Initiate plans for test plan/procedures development for Block III FOT&E to occur in FY2015.			
Accomplishments/Planned Programs Subtotals	58.364	33.568	29.781

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN/2013: *VA CL*	4,682.675	4,092.479	5,285.316		5,285.316	6,958.557	5,541.991	5,370.920	5,662.694	4,452.206	81,603.657

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1947: *New Design SSN HM&E*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• O&M,N/0204283N: *Sub Ops & Safety*	54.412	45.260	43.253		43.253	41.474	39.611	35.365	36.098	Continuing	Continuing
• OPN/0942: *VA CL Support Equipment*	93.487	79.870	74.209		74.209	62.552	46.597	47.199	44.429	Continuing	Continuing

Remarks

D. Acquisition Strategy

The VIRGINIA Class Submarine Program has implemented Integrated Product and Process Development (IPPD). The traditional distinct phasing of the design process has been replaced with the continuous concurrent engineering IPPD process. The IPPD approach has facilitated a smoother transition from design to manufacturing and has reduced the number of changes typically encountered during construction of the lead and early follow-on ships. In September 1997, Congress passed a law allowing Electric Boat (EB) and Northrop Grumman Newport News (NGNN), now Huntington Ingalls Industries (HII), to team for production of the first four VIRGINIA Class Submarines. Under the teaming agreement, EB remained the design yard for the VIRGINIA Class Submarine and HII became a part of the IPPD process. The Program Office is managing two Multi-Year Procurement (MYP) contracts the first is for the FY04-08 ships and the second was awarded in December 2008 for the FY09-13 ships. The PB13 Budget submit includes a request for a third MYP contract with an estimated RFP release in the fall of 2012 and contract award first quarter FY14.

E. Performance Metrics

Successful completion of Milestone III Review. Successful completion of Final Operational Test and Evaluation (FOT&E) for Technology Insertion (TI)-08 and Block III.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1947: *New Design SSN HM&E*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Component Development	WR	NSWC:Carderock, MD	216.910	15.329	Feb 2012	9.592	Nov 2012	3.669	Nov 2013	-		3.669	Continuing	Continuing	Continuing
Component Development	WR	NUWC:Newport, RI	105.875	0.492	Mar 2012	0.435	Nov 2012	0.220	Nov 2013	-		0.220	Continuing	Continuing	Continuing
Component Development	WR	NRL:Washington, DC	4.918	0.300	Dec 2011	0.250	Nov 2012	0.110	Nov 2013	-		0.110	Continuing	Continuing	Continuing
Component Development	C/CPFF	Electric Boat:Groton, CT	572.554	17.325	Mar 2012	8.074	Nov 2012	3.238	Nov 2013	-		3.238	Continuing	Continuing	Continuing
Component Development	C/CPFF	Electric Boat:Groton, CT	22.964	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Component Development	C/CPFF	Electric Boat:Groton, CT	34.245	5.574	Dec 2011	3.950	Dec 2012	1.539	Dec 2013	-		1.539	Continuing	Continuing	Continuing
Component Development	PO	SUPSHIP:Groton, CT	53.747	11.183	Mar 2012	4.721	Mar 2013	1.869	Mar 2014	-		1.869	Continuing	Continuing	Continuing
Component Development	SS/CPFF	Lockheed Martin:Not Specified	15.703	0.821	Dec 2011	0.000	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Component Development	SS/CPFF	Lockheed Martin:Not Specified	2.070	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Component Development	SS/CPFF	Applied Research Laboratory:Penn State University	21.906	0.115	Dec 2011	0.000	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Component Development	SS/FP	National Shipbuilding Research Program:Not Specified	2.454	0.574	Mar 2012	0.594	Mar 2013	0.219	Mar 2014	-		0.219	Continuing	Continuing	Continuing
Component Development	Various	Micellaneous:Not Specified	14.671	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	1,068.017	51.713		27.616		10.864		0.000		10.864			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1947: *New Design SSN HM&E*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation - DT&E	WR	NSWC:Carderock, MD	89.433	0.810	Feb 2012	0.800	Nov 2012	2.774	Nov 2013	-		2.774	Continuing	Continuing	Continuing
Test and Evaluation - LFT&E	WR	NSWC:Carderock, MD	0.650	0.420	Dec 2011	0.415	Nov 2012	1.479	Nov 2013	-		1.479	Continuing	Continuing	Continuing
Test and Evaluation - DT&E	WR	NSWC:Dahlgren, VA	0.315	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test and Evaluation - DT&E	WR	NUWC:Newport, RI	102.175	2.304	Feb 2012	1.695	Nov 2012	5.707	Nov 2013	-		5.707	Continuing	Continuing	Continuing
Test and Evaluation - OT&E	PO	COMOPTEVFOR:Norfolk, VA	13.428	1.000	Mar 2012	1.000	Nov 2012	3.329	Nov 2013	-		3.329	Continuing	Continuing	Continuing
Test and Evaluation - LFT&E	C/CPFF	Electric Boat:Groton, CT	1.088	0.202	Dec 2011	0.100	Dec 2012	0.369	Dec 2013	-		0.369	Continuing	Continuing	Continuing
Test and Evaluation - DT&E	C/CPAF	SEAPORT:Rockville, MD	18.907	0.500	Nov 2011	0.500	Nov 2012	1.665	Nov 2013	-		1.665	Continuing	Continuing	Continuing
Test and Evaluation - DT&E	C/CPFF	Progeny:Manassas, VA	3.460	0.915	Dec 2011	0.942	Dec 2012	3.144	Dec 2013	-		3.144	Continuing	Continuing	Continuing
Test and Evaluation - DT&E	Various	Micellaneous:Not Specified	11.842	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	241.298	6.151		5.452		18.467		0.000		18.467			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPAF	SEAPORT:Rockville, MD	19.025	0.500	Nov 2011	0.500	Nov 2012	0.450	Nov 2013	-		0.450	Continuing	Continuing	Continuing
Travel	PO	Not Specified:Not Specified	1.919	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
DAWDF	Various	Not Specified:Not Specified	0.597	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	21.541	0.500		0.500		0.450		0.000		0.450			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1947: *New Design SSN HM&E*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,330.856	58.364		33.568		29.781		0.000		29.781			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1947: *New Design SSN HM&E*

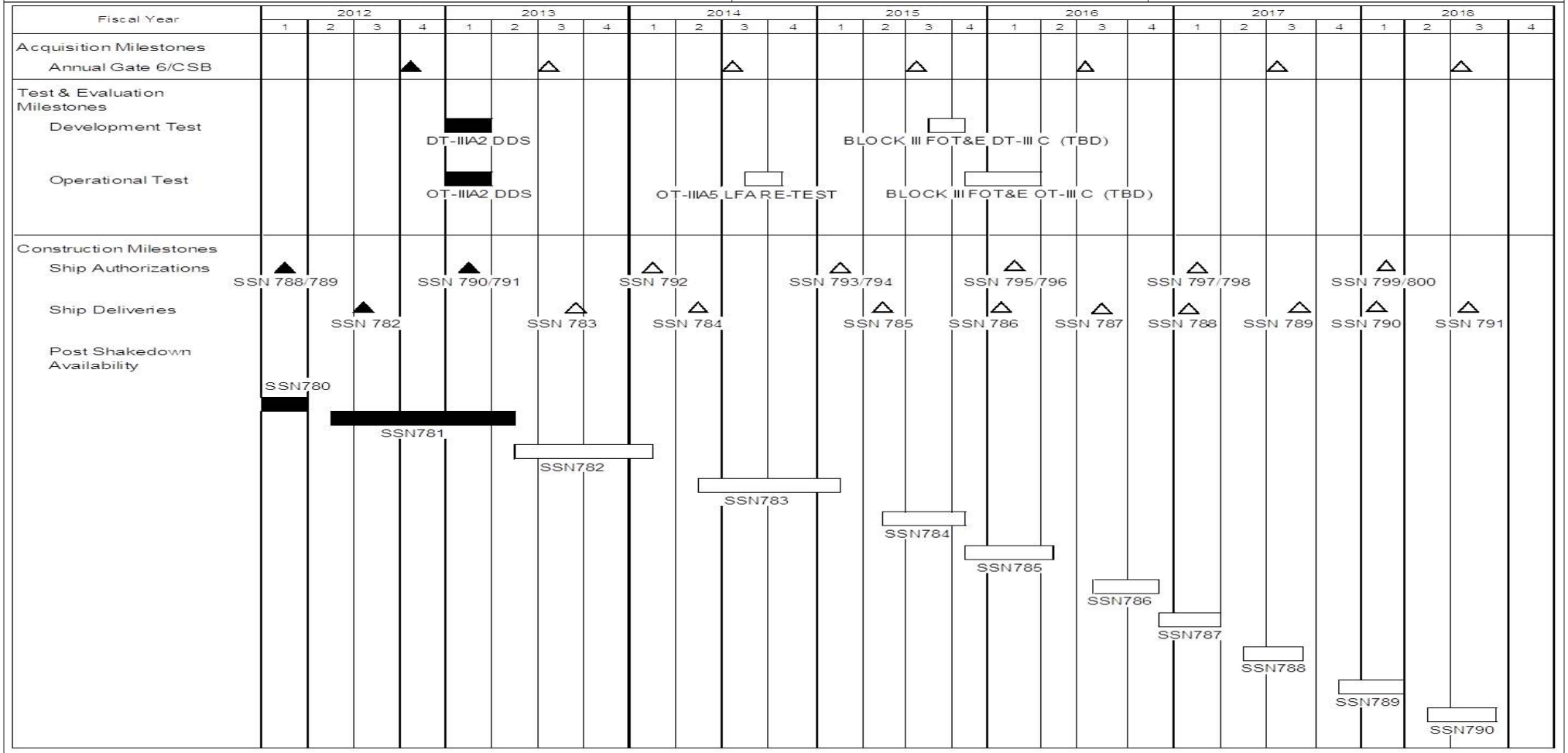


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1947: *New Design SSN HM&E*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1947				
Post Shakedown Availability/Modernization (PSA SSN 781)	2	2012	2	2013
Ship Delivery (SSN 782)	3	2012	3	2012
FY12 Annual Gate 6/CSB	4	2012	4	2012
Ship Authorization (790/791)	1	2013	1	2013
DT-IIIA2 (DDS)	1	2013	1	2013
OT-IIIA2 (DDS)	1	2013	1	2013
Post Shakedown Availability/Modernization (PSA SSN 782)	2	2013	1	2014
Ship Delivery (SSN 783)	3	2013	3	2013
FY13 Annual Gate 6/CSB	3	2013	3	2013
Ship Authorization (792)	1	2014	1	2014
Post Shakedown Availability/Modernization (PSA SSN 783)	2	2014	1	2015
Ship Delivery (SSN 784)	2	2014	2	2014
FY14 Annual Gate 6/CSB	3	2014	3	2014
LFA Re-Test (TBD)	3	2014	4	2014
Post Shakedown Availability/Modernization (PSA SSN 784)	1	2015	2	2015
Block III FOT&E DT-III C (TBD)	4	2015	1	2016
Ship Authorization (793/794)	1	2015	1	2015
Ship Delivery (SSN 785)	2	2015	2	2015
Block III FOT&E OT-III C (TBD)	3	2015	4	2015
FY15 Annual Gate 6/CSB	3	2015	3	2015
Post Shakedown Availability/Modernization (PSA SSN 785)	4	2015	2	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1947: *New Design SSN HM&E*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Ship Delivery (SSN 786)	1	2016	1	2016
Ship Authorization (795/796)	1	2016	1	2016
Post Shakedown Availability/Modernization (SSN 786)	3	2016	4	2016
FY16 Annual Gate 6/CSB	3	2016	3	2016
Ship Delivery (SSN 787)	3	2016	3	2016
Post Shakedown Availability/Modernization (PSA SSN 787)	4	2016	1	2017
Ship Delivery (SSN 788)	1	2017	1	2017
Ship Authorization (SSNs 797/798)	1	2017	1	2017
Post Shakedown Availability/Modernization (PSA SSN 788)	2	2017	3	2017
Ship Delivery (SSN 789)	3	2017	3	2017
Ship Delivery (SSN 790)	1	2018	1	2018
FY17 Annual Gate 6/CSB	3	2017	3	2017
Post Shakedown Availability/Modernization (PSA SSN 789)	4	2017	1	2018
Ship Authorization (SSN 799/800)	1	2018	1	2018
Post Shakedown Availability/Modernization (SSN 790)	2	2018	3	2018
FY18 Annual Gate 6/CSB	3	2018	3	2018
Ship Delivery (SSN 791)	3	2018	3	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1950: *New Design SSN Combat Sys Dev*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1950: *New Design SSN Combat Sys Dev*	738.538	32.821	29.065	29.876	-	29.876	37.442	38.217	39.841	36.725	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project encompasses the top level systems development, test and integration into the ship of the VIRGINIA Class Submarine C3I System, which includes multiple subsystems. The scope of the system is expanded from Sonar and Combat Control subsystems to include AN/BLQ-10 Electronic Support Measures, Exterior Communications, Submarine Regional Warfare System, Navigation, Total Ship Monitoring, Imaging, Tactical Acoustic Communications, Radar, Interior Communications, Tactical Support Devices, Fiber Optic Cable Subsystem, and Special Purpose Subsystems, such as Battle Force Team Trainer and others. VIRGINIA Class Submarine specific development efforts include requirements definition, software, hardware development, software/hardware test, prototype production, and electronic integration as well as physical integration into the platform.

The VIRGINIA Class Submarine implementation approach is based on Open System, Commercial-off-the-Shelf (COTS) Non-Developmental Items or subsystems. The program leverages on-going subsystems developments or developing new subsystems where needed to satisfy VIRGINIA Class requirements. The recurring cost of VIRGINIA Class Submarine C3I Systems is being reduced to meet the program's affordability goals. Modifications to many subsystems must be developed to: (1) reduce the shipbuilding and construction recurring costs through the use of COTS components; (2) use proven computer technologies to evolve to an Open System design; (3) enhance capabilities to support expanded operational
requirements, reduced manning, and reduced shipboard component footprint.

To meet the collective future threat, the submarine force must operate as effectively in littoral regions as it traditionally has in open ocean. Close coordination with surface battle groups and airborne units is essential to mission accomplishment. To meet the VIRGINIA Class Submarine mission, the following capabilities are provided by the
VIRGINIA Class Submarine C3I System: (1) passive and active detection of multiple contacts, including early warning threat determination through processing and analysis of sensor data; (2) classification of sensor data for the purpose of identifying contacts; (3) localization (tracking) of contacts through target motion analysis; (4) preset, launch, and control of weapons and countermeasures; (5) improved communication and connectivity with other battle group elements, airborne units, and special operations forces; (6) incorporation of vertical launch system to enhance strike warfare; and (7) more effective covert surveillance through video imaging with onboard digital enhancement capabilities, and improved electronic warfare analysis capabilities.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1950: *New Design SSN Combat Sys Dev*

The F1950 project mission includes an ongoing post VIRGINIA Class TECH/OPEVAL RDT&E effort to continue the development of VIRGINIA Unique Combat System Improvements. The VIRGINIA Class C3I will continue to leverage backfit communities' efforts, but even with common systems that the Navy has developed there will continue to be VIRGINIA Unique capability improvements required. The FY09 and out funding identified is for those efforts.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: C3I Systems Engineering	15.548	13.713	13.994
Articles:	0	0	0
FY 2012 Accomplishments: Continue the development of System Level and other subsystem Improvements to maintain VIRGINIA Class Commonality to backfit fleet. ***FY 2013 Plans:*** Continue the development of System Level and other subsystem Improvements to maintain VIRGINIA Class Commonality to backfit fleet. ***FY 2014 Plans:*** Continue the development of System Level and other subsystem Improvements to maintain VIRGINIA Class Commonality to backfit fleet.			
Title: Sonar Combat Control and Architecture Subsystems	17.273	15.352	15.882
Articles:	0	0	0
Description: The Sonar Combat Control and Architecture (S/CC/A) Subsystems funding provides for the VIRGINIA unique efforts performed by the S/CC/A PARMs (PMS401 and PMS435 respectively). These funds also provide for the integration and test of subsystems at the VIRGINIA Class system level. This is a constant and consistent effort ongoing throughout the life of the system to maintain subsystem commonality with the submarine in-service community. ***FY 2012 Accomplishments:*** Continue the development of S/CC/A System Improvements to maintain VIRGINIA Class Commonality to backfit fleet. ***FY 2013 Plans:*** Continue the development of S/CC/A System Improvements to maintain VIRGINIA Class Commonality to backfit fleet. ***FY 2014 Plans:*** Continue the development of S/CC/A System Improvements to maintain VIRGINIA Class Commonality to backfit fleet.			
Accomplishments/Planned Programs Subtotals	32.821	29.065	29.876

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1950: *New Design SSN Combat Sys Dev*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN/2013: *VA CL*	4,682.675	4,092.479	5,285.316		5,285.316	6,958.557	5,541.991	5,370.920	5,662.694	4,452.206	81,603.657
• O&M,N/0204283N: *Sub Ops & Safety*	54.412	45.260	43.253		43.253	41.474	39.611	35.365	36.098	Continuing	Continuing
• OPN/0942: *VA CL Support Equipment*	93.487	79.870	74.209		74.209	62.552	46.597	47.199	44.429	Continuing	Continuing

Remarks

D. Acquisition Strategy

The VIRGINIA Class Submarine Program has implemented Integrated Product and Process Development (IPPD). The traditional distinct phasing of the design process has been replaced with the continuous concurrent engineering IPPD process. The IPPD approach has facilitated a smoother transition from design to manufacturing and has reduced the number of changes typically encountered during construction of the lead and early follow-on ships. In September 1997, Congress passed a law allowing Electric Boat (EB) and Northrop Grumman Newport News (NGNN), now Huntington Ingalls Industries (HII), to team for production of the first four VIRGINIA Class Submarines. Under the teaming agreement, EB remained the design yard for the VIRGINIA Class Submarine and HII became a part of the IPPD process. The Program Office is managing two Multi-Year Procurement (MYP) contracts the first is for the FY04-08 ships and the second was awarded in December 2008 for the FY09-13 ships. The PB13 Budget submit includes a request for a third MYP contract with an estimated RFP release in the fall of 2012 and contract award first quarter FY14.

E. Performance Metrics

Successful completion of Milestone III Review. Successful completion of Final Operational Test and Evaluation (FOT&E) for Technology Insertion (TI)-08 and Block III. Successful implementation of Reduced Total Ownership Costs (RTOC) initiatives.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1950: *New Design SSN Combat Sys Dev*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PTR Corrections	Various	Various:TBD	30.088	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Unique Virginia Class Improvements	Various	Various:TBD	34.299	10.317	Mar 2012	7.587	Nov 2012	8.297	Nov 2013	-		8.297	Continuing	Continuing	Continuing
Advanced Display Sys (AN/UYQ-70)	SS/CPIF	Lockheed Martin:St. Paul, MN	32.143	1.059	Dec 2011	1.085	Nov 2012	1.123	Nov 2013	-		1.123	Continuing	Continuing	Continuing
Photonics	C/CPIF	Kollmorgen:Northampton, MA	52.793	1.530	May 2012	1.569	May 2013	1.624	May 2014	-		1.624	Continuing	Continuing	Continuing
Electronic Support Measures	C/FFP	Lockheed Martin:Syracuse, NY	38.067	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Platform Integration	SS/CPFF	Electric Boat:Groton, CT	45.576	1.224	Dec 2011	1.255	Nov 2012	1.299	Nov 2013	-		1.299	Continuing	Continuing	Continuing
Technology Refreshment	Various	Various:TBD	20.355	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Technical Direction Agent	WR	NUWC:Newport, RI	273.505	8.160	Feb 2012	7.066	Jan 2013	6.659	Jan 2014	-		6.659	Continuing	Continuing	Continuing
Technology Refreshment/ Info. Assurance	C/CPFF	Progeny Systems:Manassas, VA	31.686	1.530	Dec 2011	1.568	Nov 2012	1.623	Nov 2013	-		1.623	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC:Carderock, MD	9.443	0.816	Dec 2011	0.837	Nov 2012	0.866	Nov 2013	-		0.866	Continuing	Continuing	Continuing
Systems Engineering	WR	SSC:Charleston, SC	6.046	0.510	Jan 2012	0.522	Nov 2012	0.540	Nov 2013	-		0.540	Continuing	Continuing	Continuing
Systems Engineering	WR	NUWC:Keyport, WA	10.478	0.230	Mar 2012	0.236	Nov 2012	0.244	Nov 2013	-		0.244	Continuing	Continuing	Continuing
Miscellaneous	Various	Various:TBD	125.881	4.795	Feb 2012	4.625	Nov 2012	5.104	Nov 2013	-		5.104	Continuing	Continuing	Continuing
		Subtotal	710.360	30.171		26.350		27.379		0.000		27.379			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	Various	Various:TBD	6.212	0.000		0.000		0.000		-		0.000	0.000	6.212	
		Subtotal	6.212	0.000		0.000		0.000		0.000		0.000	0.000	6.212	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1950: *New Design SSN Combat Sys Dev*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Support Services/ETS	C/CPAF	URS:Rockville, MD	21.771	2.650	Dec 2011	2.715	Dec 2012	2.497	Dec 2013	-		2.497	Continuing	Continuing	Continuing
DAWDF	Various	Various:Various	0.195	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	21.966	2.650		2.715		2.497		0.000		2.497			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	738.538	32.821		29.065		29.876		0.000		29.876			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1950: *New Design SSN Combat Sys Dev*

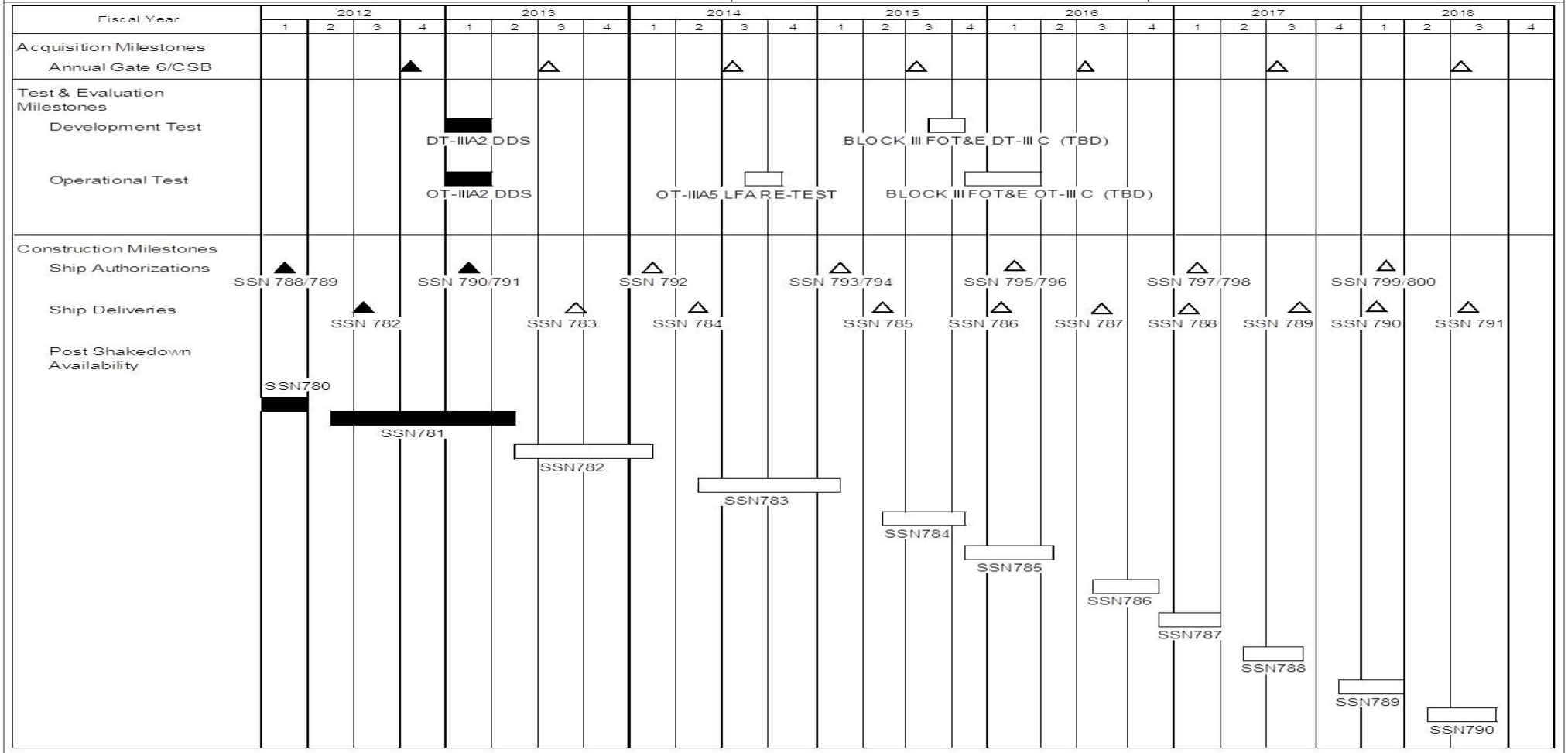


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1950: *New Design SSN Combat Sys Dev*

Schedule Details

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 1950				
Post Shakedown Availability/Modernization (PSA SSN 780)	1	2012	2	2012
Ship Authorization (SSN 788/789)	1	2012	1	2012
Post Shakedown Availability/Modernization (PSA SSN 781)	1	2013	2	2013
Ship Delivery (SSN 782)	3	2012	3	2012
FY12 Annual Gate 6/CSB	4	2012	4	2012
Ship Authorization (SSN 790/791)	1	2013	1	2013
DT-IIIA2 (DDS)	1	2013	1	2013
OT-IIIA2 (DDS)	1	2013	1	2013
Post Shakedown Availability/Modernization (PSA SSN 782)	2	2013	1	2014
Ship Delivery (SSN 783)	3	2013	3	2013
FY13 Annual Gate 6/CSB	3	2013	3	2013
Ship Authorization (SSN 792)	1	2014	1	2014
Post Shakedown Availability/Modernization (PSA SSN 783)	2	2014	4	2014
Ship Delivery (SSN 784)	2	2014	2	2014
FY14 Annual Gate 6/CSB	3	2014	3	2014
LFA Re-Test (TBD)	3	2014	4	2014
Post Shakedown Availability/Modernization (PSA SSN 784)	1	2015	2	2015
Block III FOT&E DT-III C (TBD)	4	2015	1	2016
Ship Authorization (SSN 793/794)	1	2015	1	2015
Ship Delivery (SSN 785)	2	2015	2	2015
Block III FOT&E OT-III C (TBD)	3	2015	4	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 1950: *New Design SSN Combat Sys Dev*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FY15 Annual Gate 6/CSB	3	2015	3	2015
Post Shakedown Availability/Modernization (PSA SSN 785)	1	2016	2	2016
Ship Delivery (SSN 786)	1	2016	1	2016
Ship Authorization (SSN 795/796)	1	2016	1	2016
Post Shakedown Availability/Modernization (SSN 786)	3	2016	4	2016
FY16 Annual Gate 6/CSB	3	2016	3	2016
Ship Delivery (SSN 787)	3	2016	3	2016
Post Shakedown Availability/Modernization (SSN 787)	4	2016	1	2017
Ship Delivery (SSN 788)	1	2017	1	2017
Ship Authorization (SSNs 797/798)	1	2017	1	2017
Post Shakedown Availability/Modernization (SSN 788)	2	2017	3	2017
Ship Delivery (SSN 789)	3	2017	3	2017
Ship Delivery (SSN 790)	3	2017	3	2017
FY17 Annual Gate 6/CSB	1	2018	1	2018
Post Shakedown Availability/Modernization (SSN 789)	4	2017	1	2018
Ship Authorization (SSNs 799/800)	1	2018	1	2018
Post Shakedown Availability/Modernization (SSN 790)	2	2018	3	2018
FY18 Annual Gate 6/CSB	3	2018	3	2018
Ship Delivery (SSN 791)	3	2018	3	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 3062: *Submarine Multi-Mission Team Trainer*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3062: *Submarine Multi-Mission Team Trainer*	21.556	2.932	2.729	2.789	-	2.789	2.857	2.906	2.955	3.010	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

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. The Combat Control System (CCS) MK1, CCS MK2, and AN/BYG-1, along with sonar systems AN/BSY-1, AN/BQQ-5, and AN/BQQ-10 are installed on SSN and SSGN Class submarines. These tactical systems are planned for future upgrades with the next hardware and software revisions which will provide enhanced war fighter capabilities. The Tactical Acoustic Rapid COTS (commercial-off-the-shelf) Insertion (ARCI) Phased upgrades are also being installed with future revisions. The Advanced Processing Builds (APB) and Technical Insertion (TI) sensors, which feed technology insertion into the CCS/Acoustic development, directly impact the trainers.

The Submarine Multi-Mission Team Trainer (SMMTT) supports operator, employment, strike, and Battle Group training for enlisted and officer pipelines. 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 in stand alone or in combined team mode prior to ship deployment.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Submarine Multi-Mission Team Trainer	2.932	2.729	2.789
Articles:	0	0	0
Description: 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.			
FY 2012 Accomplishments: FY12 Develops implementation of latest Advanced Processor Build (APB), Technical Insertion (TI) and associated training displays. This effort includes new sensor developments and simulations to match advancements in tactical systems supported by SMMTT. This effort also develops the APB and starts the new Low Cost Conformal Array (LCCA) sensor development.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 3062: *Submarine Multi-Mission Team Trainer*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY13 Develops implementation of latest Advanced Processor Build (APB), Technical Insertion (TI) and associated training displays. This effort includes new sensor developments and simulations to match advancements in tactical systems supported by SMMTT. This effort also integrates the APB into the SMMTT baseline along with completing and integrating the LCCA sensor. ***FY 2014 Plans:*** N/A			
Accomplishments/Planned Programs Subtotals	2.932	2.729	2.789

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/5661: *Submarine Training Device Mods*	30.286	16.440	20.001		20.001	16.728	17.042	17.498	17.623	Continuing	Continuing

Remarks

D. Acquisition Strategy

The SMMTT program software development is accounted for in this RDT&E line. All production kits are procured in OPN PE 0804731N BLI 566100, cost code TD009.

E. Performance Metrics

Within 90 days of introduction to the Fleet, this RDTEN project shall develop required changes to the Control's & Display's Documentation and Interface Description Language (IDL) Interfaces for the initial development for new sensors that are required to simulate/stimulate that TI/APB for the AN/BQQ-5 and AN/BYG-1 in the Submarine Multi-Mission Team Trainer.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 3062: *Submarine Multi-Mission Team Trainer*

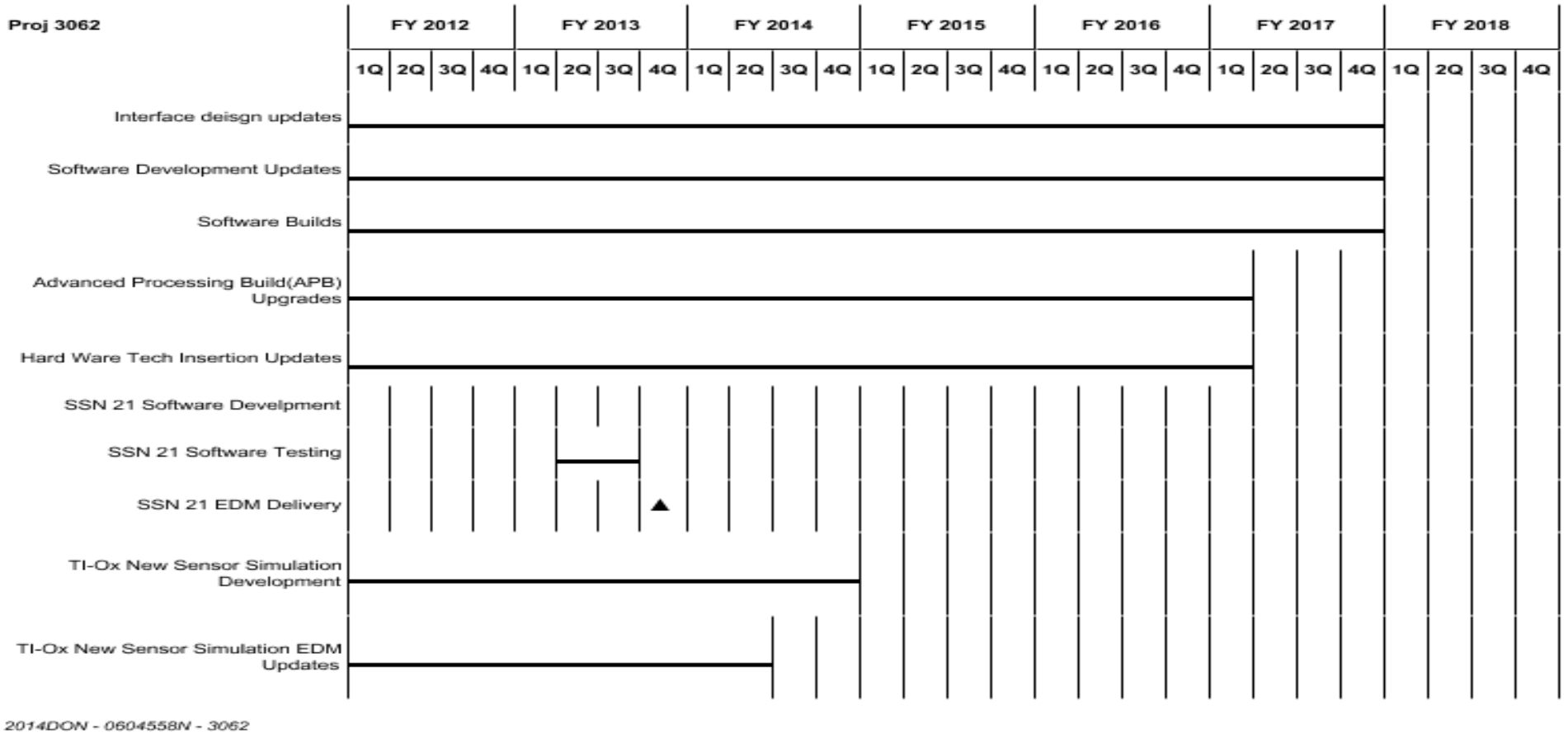
Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Component Development	Reqn	NSWC/ CD:Bethesda, MD	20.001	1.532	Dec 2011	2.373	Dec 2012	1.479	Dec 2013	-		1.479	Continuing	Continuing	Continuing
Component Development	C/CPFF	ARL:UT Austin	1.555	0.400	Jan 2012	0.356	Jan 2013	0.310	Jan 2014	-		0.310	Continuing	Continuing	Continuing
Component Development	Reqn	NSWC/ NPT:Newport, RI	0.000	1.000	Dec 2011	0.000	Dec 2012	1.000	Dec 2013	-		1.000	0.000	2.000	
		Subtotal	21.556	2.932		2.729		2.789		0.000		2.789			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	21.556	2.932		2.729		2.789		0.000		2.789			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 3062: *Submarine Multi-Mission Team Trainer*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 3062: *Submarine Multi-Mission Team Trainer*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3062				
Interface deisgn updates: Interface Design Updates	1	2012	4	2017
Software Development Updates: Software Development Updates (SIM/STIM)	1	2012	4	2017
Software Builds: Software Builds	1	2012	4	2017
Advanced Processing Build(APB) Upgrades: Advanced Processing Build (APB) Upgrades	1	2012	1	2017
Hard Ware Tech Insertion Updates: Hard Ware Tech Insertion Updates	1	2012	1	2017
SSN 21 Software Develpment: SSN 21 Software Development	1	2012	1	2013
SSN 21 Software Testing: SSN 21 Software Testing	2	2013	3	2013
SSN 21 EDM Delivery: SSN 21 EDM Delivery	4	2013	4	2013
TI-Ox New Sensor Simulation Development: TI-0x New Sensor Simulation Development	1	2012	4	2014
TI-Ox New Sensor Simulation EDM Updates: TI-0x New Sensor Simulation EDM Updates	1	2012	2	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 4500: *VIRGINIA Payload Module*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
4500: *VIRGINIA Payload Module*	0.000	0.000	99.868	59.120	-	59.120	149.758	199.562	199.692	74.892	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project encompasses Navy RDT&E efforts required to incorporate a modular design for future VIRGINIA Class Submarines (VCS) which integrates strike payload capacity for Tomahawk Land Attack and follow on missiles. The design is targeted for VCS Block V (FY19-23 ships).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Non-Propulsion Electronics System (NPES) Engineering	0.000	49.934	29.560
Articles:		0	0
FY 2013 Plans: Develop requirements for VPM system launch control and evaluate candidate configurations for integration with existing VIRGINIA Class combat systems. Integrate and automate launch processes to enable efficient launch of payloads. Assess launcher electronics and software design to support rapid, low cost integration and testing of payloads. Reduce overall launch electronics weight and footprint, and provide increased unit space for future payload electronics.			
FY 2014 Plans: Continue development of VPM system launch control and integration with existing VIRGINIA Class combat systems. Integrate and automate launch processes to enable efficient launch of payloads. Assess launcher electronics and software design to support rapid, low cost integration and testing of payloads. Reduce overall launch electronics weight and footprint, and provide increased unit space for future payload electronics.			
Title: Hull, Mechanical, and Electrical (HM&E) Systems Engineering	0.000	49.934	29.560
Articles:		0	0
FY 2013 Plans: Design integration of the VPM including insertion of payload tube module to existing hull structure, hydrodynamic assessments, hydraulic system design, tube control interface, and internal arrangements to accommodate hardware, electronics and personnel. Design studies to assess all ship characteristics including maneuvering, signature levels, shock survivability, operational impacts and life cycle support. Products include specifications, system diagrams and arrangements.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 4500: *VIRGINIA Payload Module*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue design efforts for the VPM including integration to existing hull structure, hydrodynamic assessments, hydraulic system design, tube control interface, and internal arrangements to accommodate hardware, electronics and personnel. Design studies to assess all ship characteristics including maneuvering, signature levels, shock survivability, operational impacts and life cycle support. Products include specifications, system diagrams and arrangements.			
Accomplishments/Planned Programs Subtotals	0.000	99.868	59.120

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN 2013: *VA CL*	4,682.675	4,092.479	5,285.316		5,285.316	6,958.557	5,541.991	5,370.920	5,662.694	4,452.206	81,603.657
• O&M,N/0204283N: *Sub Ops & Safety*	54.412	45.260	43.253		43.253	41.474	39.611	35.365	36.098	Continuing	Continuing
• OPN/0942: *VA CL Support Equipment*	93.487	79.870	74.209		74.209	62.552	46.597	47.199	44.429	Continuing	Continuing

Remarks

D. Acquisition Strategy

The VIRGINIA Class Submarine Program has implemented Integrated Product and Process Development (IPPD). The traditional distinct phasing of the design process has been replaced with the continuous concurrent engineering IPPD process. The IPPD approach has facilitated a smoother transition from design to manufacturing and has reduced the number of changes typically encountered during construction of the lead and early follow-on ships. In September 1997, Congress passed a law allowing Electric Boat (EB) and Northrop Grumman Newport News (NGNN), now Huntington Ingalls Industries (HII), to team for production of the first four VIRGINIA Class Submarines. Under the teaming agreement, EB remained the design yard for the VIRGINIA Class Submarine and HII became a part of the IPPD process. The Program Office is managing two Multi-Year Procurement (MYP) contracts the first is for the FY04-08 ships and the second was awarded in December 2008 for the FY09-13 ships. The PB13 Budget submit includes a request for a third MYP contract with an estimated RFP release in the fall of 2012 and contract award first quarter FY14. Developmental efforts will begin in FY13 and will be executed via current Lead Design Yard Agent contract with Electric Boat.

E. Performance Metrics

Preliminary Design Review
Critical Design Review

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 4500: *VIRGINIA Payload Module*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Component Development	WR	NSWC:Carderock, MD	0.000	0.000		9.862	Apr 2013	5.787	Nov 2013	-		5.787	Continuing	Continuing	Continuing
Component Development	WR	NUWC:Newport, RI	0.000	0.000		9.862	Apr 2013	5.787	Nov 2013	-		5.787	Continuing	Continuing	Continuing
Component Development	C/CPFF	Electric Boat:Groton, CT	0.000	0.000		79.894	Apr 2013	47.296	Nov 2013	-		47.296	Continuing	Continuing	Continuing
Component Development	Various	Various:Various	0.000	0.000		0.000	Apr 2013	0.000	Nov 2013	-		0.000	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		99.618		58.870		0.000		58.870			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPAF	URS:Rockville, MD	0.000	0.000		0.250	Apr 2013	0.250	Nov 2013	-		0.250	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.250		0.250		0.000		0.250			

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		99.868		59.120		0.000		59.120			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 4500: *VIRGINIA Payload Module*

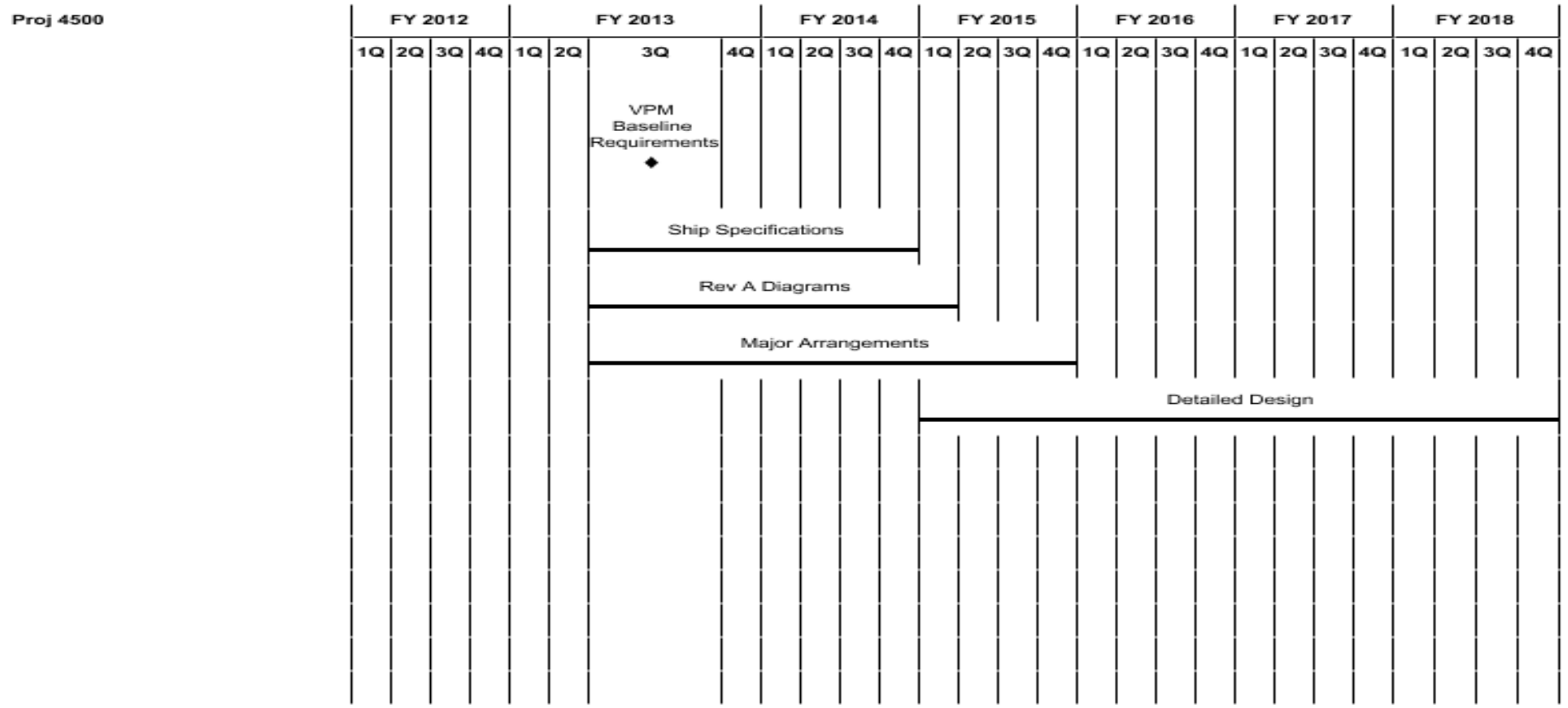


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 4500: *VIRGINIA Payload Module*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 4500				
Top Level Requirements Set/Updated VPM Baseline	3	2013	3	2013
Ship Specifications	3	2013	4	2014
Rev A Diagrams	3	2013	1	2015
Major Arrangements	3	2013	4	2015
Design Development	1	2015	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	15.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	15.000
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Congressional Adds.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013
Congressional Add: New Design SSN SBIR (Cong)	15.000	-
FY 2012 Accomplishments: N/A		
Congressional Adds Subtotals	15.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Congressional Adds.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604558N: *New Design SSN*	PROJECT 9999: *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Rapid COTS Development	C/CPFF	Progeny Systems:Manassas, VA	0.000	15.000	May 2012	0.000		0.000		-		0.000	0.000	15.000	
		Subtotal	0.000	15.000		0.000		0.000		0.000		0.000	0.000	15.000	

Remarks

Funding used to support a number of efforts that have high potential for increasing performance and/or reducing cost and risk for future VIRGINIA Class submarines:
Leveraging previous development of the Common Weapon Launcher (CWL), efforts will include:
Development of future technology insertion strategies and plans and critical item testing of components
Development of CONOPs, architectures, OMI concepts and prototype displays for future payloads associated with VIRGINIA Blocks IV/V
Addressing the cost and performance issues associated with current design, a new low cost replacement EDM will be developed as a potential alternative for the Light Weight Wide Aperture Array (LWWAA) electro-optic receiver cabinet
In response to operational fleet concerns regarding combat system reliability and data collection, a NPES wide reliability data collection, monitoring, analysis and performance prediction system will be matured for potential introduction during a future Advanced Processing Build (APB)
In order to support Imaging subsystem processing, a number of new technologies will be matured and introduced in future APBs to improve photonics performance to rapidly detect and classify contacts of interest in challenging environments
Development of vector sensors for next generation fat-line towed array to increase array acoustic performance and to support target bearing ambiguity
Development, prototype and maturation of wireless component sensing and network technology that will facilitate low power, non-intrusive automatic integrated monitoring of critical ship systems, in support of reduced manning initiatives.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	15.000		0.000		0.000		0.000		0.000	0.000	15.000	

Remarks

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604562N: *Submarine Tactical Warfare System*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	524.977	47.318	49.141	49.143	-	49.143	48.263	46.419	46.220	46.998	Continuing	Continuing
0236: *SSN Comb Cont Sys Imprvmnt (ENG)*	524.977	47.318	49.141	49.143	-	49.143	48.263	46.419	46.220	46.998	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Project Unit 0236: This program develops Commercial-Off-The-Shelf (COTS) based software and hardware upgrades to integrate improved tactical and weapons control capabilities for multiple submarine Classes (SSN-688, SSGN, SEAWOLF, and VIRGINIA (Post Shakedown Availability)). The AN/BYG-1 is the combat control system common across submarine platforms which incorporates tactical control, weapon control, and tactical Local Area Network (LAN) functions into a single development program. The hardware upgrades, Technology Insertions (TI) are developed on a biennial basis to provide improved capability and address COTS obsolescence. Funding also accommodates the biennial integration of software Advanced Processing Builds (APB) for both tactical control (APB(T)) and weapon control (APB(W)) subsystems. The tactical control integration effort incorporates the integration of other sensor (ESM, sonar, radar, etc.) inputs to provide a common operational picture and improved situational awareness in an information assurance (IA) compliant environment. The weapon control development effort provides improvements to the weapons control subsystem based on improvements to missiles and torpedoes. Provides funding for the development of Weapons Launch System, Multi-tube Weapons System (MTWS), Information Assurance (IA) system, Onboard Team Trainer (OBTT), and Command, Control, Computer and Intelligence Maintenance Tool (C3IMT). AN/BYG-1 allows the submarine Navy to rapidly update the ship safety tactical picture, integrate the common tactical picture into the battlegroup, improve torpedo interfaces, and provide Tactical TOMAHAWK (TOMAHAWK Block IV) capability.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	48.466	49.141	49.371	-	49.371
Current President's Budget	47.318	49.141	49.143	-	49.143
Total Adjustments	-1.148	0.000	-0.228	-	-0.228
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.148	0.000			
• Program Adjustments	0.000	0.000	-0.071	-	-0.071
• Rate/Misc Adjustments	0.000	0.000	-0.157	-	-0.157

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604562N: *Submarine Tactical Warfare System*

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604562N: *Submarine Tactical Warfare System*	PROJECT 0236: *SSN Comb Cont Sys Imprvmnt (ENG)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0236: *SSN Comb Cont Sys Imprvmnt (ENG)*	524.977	47.318	49.141	49.143	-	49.143	48.263	46.419	46.220	46.998	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Project Unit 0236: This program develops Commercial-Off-The-Shelf (COTS) based software and hardware upgrades to integrate improved tactical and weapons control capabilities for multiple submarine Classes (SSN 688, SSGN, SEAWOLF, and VIRGINIA (Post Shakedown Availability)). The AN/BYG-1 is the combat control system common across submarine platforms which incorporates tactical control, weapon control, and tactical Local Area Network (LAN) functions into a single development program. The hardware upgrades Technology Insertions (TI) are developed on a biennial basis to provide improved capability and address COTS obsolescence. Funding also accommodates the biennial integration of software Advanced Processing Builds (APBs) for both tactical control (APB(T)) and weapon control (APB(W)) subsystems. The tactical control integration effort incorporates the integration of other sensor (ESM, sonar, radar, etc.) inputs to provide a common operational picture and improved situational awareness in an information assurance (IA) compliant environment. The weapon control development effort provides improvements to the weapons control subsystem based on improvements to missiles and torpedoes. 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 (TOMAHAWK Block IV) capability.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Advanced Processor Builds	19.931	22.663	22.237
Articles:	0	0	0
FY 2012 Accomplishments: Completed APB-11 integration into AN/BYG-1 (TI-12) baseline. Support development of APB-13 into AN/BYG-1 baseline.			
FY 2013 Plans: Continue development of APB-13 into AN/BYG-1 baseline.			
FY 2014 Plans: Complete APB-13 integration into AN/BYG-1 (TI-14) baseline.			
Title: AN/BYG-1 TI-10	3.320	0.000	0.000
Articles:	0		

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604562N: *Submarine Tactical Warfare System*	PROJECT 0236: *SSN Comb Cont Sys Imprvmnt (ENG)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Completed development, integration, and test of the next generation AN/BYG-1 (TI-10) for SSN 688/SSGN/VA Class submarines.			
Title: AN/BYG-1 TI-12	10.533	4.426	1.500
Articles:	0	0	0
FY 2012 Accomplishments: Continue development, integration, and test of the next generation AN/BYG-1 (TI-12) for SSN 688/SSGN/VA Class submarines.			
FY 2013 Plans: Continue development, integration, and test of the next generation AN/BYG-1 (TI-12) for SSN 688/SSGN/VA Class submarines.			
FY 2014 Plans: Complete development, integration and test of the next generation AN/BYG-1 (TI-12) for SSN 688/SSGN/VA Class submarines.			
Title: AN/BYG-1 TI-14	3.178	7.118	7.945
Articles:	0	0	0
FY 2012 Accomplishments: Begin engineering development process for selection and prototyping of new technologies.			
FY 2013 Plans: Continue development, integration and test of the next generation AN/BYG-1 (TI-14) for SSN 688/SSGN/VA Class submarines.			
FY 2014 Plans: Continue development, integration and test of the next generation AN/BYG-1 (TI-14) for SSN 688/SSGN/VA Class submarines.			
Title: AN/BYG-1 TI-16	0.000	3.030	7.239
Articles:		0	0
FY 2013 Plans: Begin engineering development process for selection and prototyping of new technologies.			
FY 2014 Plans: Continue development, integration and test of the next generation AN/BYG-1 (TI-16) for SSN 688/SSGN/VA Class submarines.			
Title: Testing	4.000	5.340	3.591
Articles:	0	0	0
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604562N: *Submarine Tactical Warfare System*	PROJECT 0236: *SSN Comb Cont Sys Imprvmnt (ENG)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Completed DT/OT for AN/BYG-1 TI-10 on SSN 688/SSGN/Seawolf/VA Class submarines. Begin DT/OT for AN/BYG-1 APB-11 on SSN 688/SSGN/Seawolf/VA Class submarines. ***FY 2013 Plans:*** Complete DT/OT for AN/BYG-1 APB-11 on SSN 688/SSGN/Seawolf/VA Class submarines. Begin DT/OT for AN/BYG-1 TI-12 on SSN 688/SSGN/Seawolf/VA Class submarines. ***FY 2014 Plans:*** Complete DT/OT for AN/BYG-1 TI-12 on SSN 688/SSGN/Seawolf/VA Class submarines. Begin DT/OT for AN/BYG-1 APB-13 on SSN 688/SSGN/Seawolf/VA Class submarines.			
Title: Information Assurance (IA) ***Articles:*** ***FY 2012 Accomplishments:*** Developed and integrated IA Toolkit and conduct IA Certification Testing on BYG-1 TI-12. ***FY 2013 Plans:*** Complete integration of IA Toolkit and continue IA Certification Testing on BYG-1 TI-12 ***FY 2014 Plans:*** Develop and integrate IA Toolkit and conduct IA Certification Testing on BYG-1 TI-14	6.356 0	6.564 0	6.631 0
Accomplishments/Planned Programs Subtotals	47.318	49.141	49.143

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

This budget integrates APBs developed by the advanced development community.
This program has been tailored in accordance with the new DoD5000 directive to incorporate annual MDA production reviews.
Advanced Processing Builds (APB) products associated with AN/BYG-1 Release-To- Fleet 3Q 2011, 3Q 2013, 3Q 2015 and 3Q 2017.

E. Performance Metrics

AN/BYG-1 Submarine Combat and Weapon Control System performance metrics for each Advanced Processor Build (APB) and Technology Insertion (TI) cycle are contained in the classified Capability Production Document (CPD) annex to the overarching system requirements as laid out in the Capabilities Development Document (CDD). Each APB cycle receives an updated CPD based on fleet required capabilities.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604562N: *Submarine Tactical Warfare System*	PROJECT 0236: *SSN Comb Cont Sys Imprvmnt (ENG)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AN/BYG-1 TECH INSERTION	C/CPIF	GENERAL DYNAMICS (GDAIS):FAIR LAKES, VA	66.532	6.486	Oct 2011	6.446	Oct 2012	6.768	Oct 2013	-		6.768	Continuing	Continuing	Continuing
AN/BYG-1 TECH INSERTION	C/CPIF	GENERAL DYNAMICS (GDAIS):PITTSFIELD, MA	17.629	8.995	Oct 2011	8.997	Oct 2012	9.267	Oct 2013	-		9.267	Continuing	Continuing	Continuing
GOVERNMENT ENGINEERING	WR	NUWC:NEWPORT, RI	73.994	2.653	Oct 2011	2.698	Oct 2012	2.749	Oct 2013	-		2.749	Continuing	Continuing	Continuing
INFORMATION ASSURANCE	C/CPAF	PROGENY:MANASSAS, VA	12.642	6.356	Oct 2011	6.564	Oct 2012	6.631	Oct 2013	-		6.631	Continuing	Continuing	Continuing
AN/BYG-1 TECH INSERTION	C/CPAF	RAYTHEON:PORTSMOUTH, RI	53.350	0.000		0.000		0.000		-		0.000	0.000	53.350	53.350
MULTI TUBE WEAPON SIMULATOR	Various	PROGENY:Not Specified	2.635	0.000		0.000		0.000		-		0.000	0.000	2.635	2.635
AN/BYG-1 TECH INSERTION	Various	MITRE:Not Specified	2.429	0.000		0.000		0.000		-		0.000	0.000	2.429	2.429
AN/BYG-1 TECH INSERTION	C/CPIF	ANTEON:Not Specified	6.000	0.000		0.000		0.000		-		0.000	0.000	6.000	6.000
COTS HARDWARE & SOFTWARE	C/CPAF	DDL OMNI:Not Specified	8.500	0.000		0.000		0.000		-		0.000	0.000	8.500	8.500
COMMON WEAPON LAUNCHER	C/CPAF	PROGENY:Not Specified	38.329	0.000		0.000		0.000		-		0.000	0.000	38.329	38.329
		Subtotal	282.040	24.490		24.705		25.415		0.000		25.415			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
APB SOFTWARE INTEGRATION	C/CPIF	GENERAL DYNAMICS	50.890	3.570	Oct 2011	3.576	Oct 2012	3.683	Oct 2013	-		3.683	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604562N: *Submarine Tactical Warfare System*	PROJECT 0236: *SSN Comb Cont Sys Imprvmnt (ENG)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		(GDAIS):FAIRLAKES, VA													
APB SOFTWARE INTEGRATION	C/CPIF	GENERAL DYNAMICS:PITTSFIELD, MA	9.135	4.590	Oct 2011	4.613	Oct 2012	4.751	Oct 2013	-		4.751	Continuing	Continuing	Continuing
APF SOFTWARE INTEGRATION	WR	NUWC:NEWPORT, RI	35.198	5.382	Oct 2011	5.103	Oct 2012	5.231	Oct 2013	-		5.231	Continuing	Continuing	Continuing
SOFTWARE DEVELOPMENT	Various	VARIOUS:VARIOUS:Not Specified	40.315	4.286	Oct 2011	3.794	Oct 2012	5.070	Oct 2013	-		5.070	Continuing	Continuing	Continuing
APB SOFTWARE INTEGRATION	C/CPAF	RAYTHEON:PORTSMOUTH, RI	44.466	0.000		0.000		0.000		-		0.000	0.000	44.466	44.466
		Subtotal	180.004	17.828		17.086		18.735		0.000		18.735			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DEVELOPMENT TEST & EVALUATION	WR	NUWC:NEWPORT, RI	27.614	2.599	Oct 2011	3.116	Oct 2012	2.269	Oct 2013	-		2.269	Continuing	Continuing	Continuing
TEST & EVALUATION	Various	VARIOUS:VARIOUS:Not Specified	4.495	1.401	Oct 2011	2.224	Oct 2012	1.322	Oct 2013	-		1.322	Continuing	Continuing	Continuing
OPERATIONAL TEST & EVALUATION	WR	COMOPTEVFOR:Not Specified	16.169	0.000		0.000		0.000		-		0.000	0.000	16.169	16.169
		Subtotal	48.278	4.000		5.340		3.591		0.000		3.591			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PROGRAM MANAGEMENT SUPPORT	C/CPFF	URS:ARLINGTON, VA	14.035	1.000	Oct 2011	2.010	Oct 2012	1.402	Oct 2013	-		1.402	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604562N: *Submarine Tactical Warfare System*	PROJECT 0236: *SSN Comb Cont Sys Imprvmnt (ENG)*	

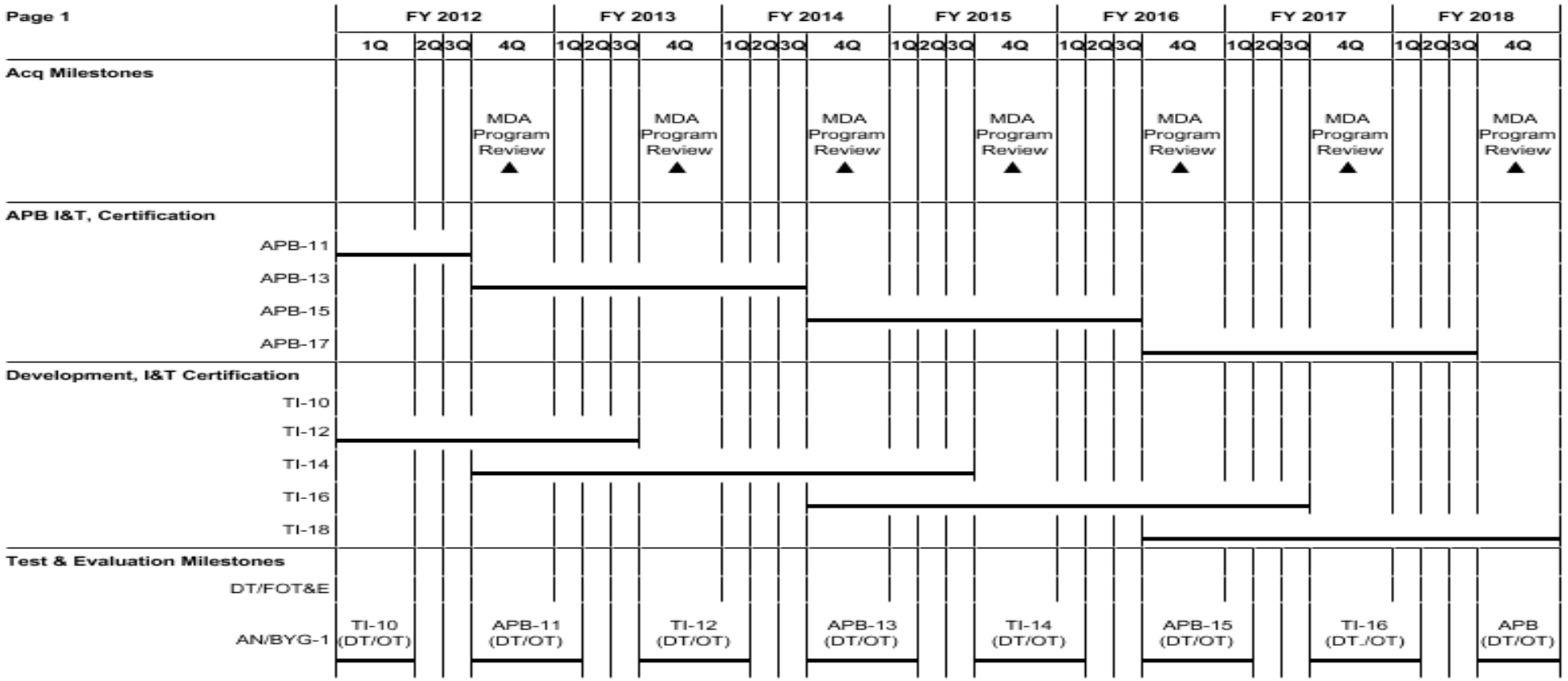
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TRAVEL	WR	NAVSEA:ARLINGTON, VA	0.620	0.000		0.000		0.000		-		0.000	0.000	0.620	0.880
ACQUISITION WORKFORCE	Various	Not Specified:Not Specified	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	0.282
		Subtotal	14.655	1.000		2.010		1.402		0.000		1.402			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	524.977	47.318		49.141		49.143		0.000		49.143			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604562N: *Submarine Tactical Warfare System*	PROJECT 0236: *SSN Comb Cont Sys Imprvmnt (ENG)*



2014DON - 0604562N - 0236

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604562N: *Submarine Tactical Warfare System*	**PROJECT** 0236: *SSN Comb Cont Sys Imprvmnt (ENG)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Page 1				
Acq Milestones: Annual MDA Program Review - FY12	4	2012	4	2012
Acq Milestones: Annual MDA Program Review - FY13	4	2013	4	2013
Acq Milestones: Annual MDA Program Review - FY14	4	2014	4	2014
Acq Milestones: Annual MDA Program Review - FY15	4	2015	4	2015
Acq Milestones: Annual MDA Program Review - FY16	4	2016	4	2016
Acq Milestones: Annual MDA Program Review - FY17	4	2017	4	2017
Acq Milestones: Annual MDA Program Review - FY18	4	2018	4	2018
APB I&T, Certification: APB-11: APB-11	1	2012	3	2012
APB I&T, Certification: APB-13: APB-13	4	2012	3	2014
APB I&T, Certification: APB-15: APB-15	4	2014	3	2016
APB I&T, Certification: APB-17: APB-17	4	2016	3	2018
Development, I&T Certification: TI-12: TI-12	1	2012	3	2013
Development, I&T Certification: TI-14: TI-14	4	2012	3	2015
Development, I&T Certification: TI-16: TI-16	4	2014	3	2017
Development, I&T Certification: TI-18: TI-18	4	2016	4	2018
Test & Evaluation Milestones: AN/BYG-1: TI-10 DT/OT	1	2012	1	2012
Test & Evaluation Milestones: AN/BYG-1: APB-11 DT/OT	4	2012	1	2013
Test & Evaluation Milestones: AN/BYG-1: TI-12 DT/OT	4	2013	1	2014
Test & Evaluation Milestones: AN/BYG-1: APB-13 DT/OT	4	2014	1	2015
Test & Evaluation Milestones: AN/BYG-1: TI-14 DT/OT	4	2015	1	2016
Test & Evaluation Milestones: AN/BYG-1: APB-15 DT/OT	4	2016	1	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test & Evaluation Milestones: AN/BYG-1: TI-16 DT/OT	4	2017	1	2018
Test & Evaluation Milestones: AN/BYG-1: APB-17 DT/OT	4	2018	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	554.993	121.008	196.737	155.254	-	155.254	123.970	63.337	54.620	50.031	Continuing	Continuing
1803: *Ship Contract Design*	57.929	28.282	17.876	18.912	-	18.912	19.761	18.178	19.059	19.324	Continuing	Continuing
2465: *LHA(R) FLT Design and Total Ship Integration*	163.122	21.439	33.729	30.813	-	30.813	23.260	13.196	4.882	6.760	Continuing	Continuing
3133: *Ship to Shore Connectors Contract Design*	92.512	2.398	0.876	0.069	-	0.069	3.800	3.606	3.681	1.540	Continuing	Continuing
3137: *SSC Construction*	75.691	48.564	130.394	89.888	-	89.888	56.784	7.042	4.113	2.267	Continuing	Continuing
3179: *CVN-79 Total Ship Integration*	114.919	18.718	11.187	11.927	-	11.927	16.573	16.223	18.555	15.749	Continuing	Continuing
4007: *CVN 21 LFT&E*	50.820	1.607	2.675	3.645	-	3.645	3.792	5.092	4.330	4.391	Continuing	Continuing
MDAP/MAIS Code(s): 223,333,P303												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This Program Element (PE) directly supports the Navy's Shipbuilding Plan by providing for the development of engineering, programmatic and acquisition documentation including ship specifications (including performance specifications) and contractual documentation associated with acquisition of Navy ships. This PE also supports the Congressionally mandated Live Fire Test and Evaluation (LFT&E) program for new ship designs.

Contract Design has traditionally been the engineering development of the technical and contractual definition of the ship design (including ship specifications and drawings) to a level of detail sufficient for shipbuilders to make a sound estimate of the construction cost and schedule. Additionally, the contract design package developed under this PE has provided the technical baseline from which the Navy selects the shipbuilder who then develops the detail design package required to support the construction and eventual delivery of the ship. This PE also supports the development of design methodologies/tools which facilitate and optimize the transition from ship design documents to efficient production of new ships and ship conversions, and supports engineering planning and ship affordability studies.

Under Acquisition Reform for new design ships, traditional distinct phasing of the design process has been replaced with a continuous concurrent engineering Integrated Product and Process Development (IPPD) process extending through and after contract award. This serves to maintain the focus of multi-discipline teams consisting of the government,

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
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shipbuilder, system programs, and suppliers. Government/Industry Integrated Product Team(s) (IPTs) will utilize the IPPD process to develop the design in an Integrated Product and Data Environment (IPDE). The design approach is part of an acquisition strategy that is based on commercial practices and incorporates a phased technical definition.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	121.089	196.737	184.183	-	184.183
Current President's Budget	121.008	196.737	155.254	-	155.254
Total Adjustments	-0.081	0.000	-28.929	-	-28.929
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.592	0.000			
• SBIR/STTR Transfer	-1.673	0.000			
• Program Adjustments	0.000	0.000	-28.003	-	-28.003
• Rate/Misc Adjustments	0.000	0.000	-0.926	-	-0.926

Change Summary Explanation

Added FY 12 funding for cruiser cracking study and Afloat Forward Staging Base (AFSB) contract design efforts. Reduced FY 12 LHA design efforts and SSC construction efforts to fund AFSB contract design efforts. Reduced FY 14 CVN 79 Total Ship Integration funding and SSC Construction funding to properly phase program requirements in accordance with expenditures.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 1803: *Ship Contract Design*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1803: *Ship Contract Design*	57.929	28.282	17.876	18.912	-	18.912	19.761	18.178	19.059	19.324	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

CG and DDG Modernization:
The major effort is the engineering development of the technical and contractual definition of the ship's design (e.g. ship specifications and drawings), with sufficient details for the planning yard to make a sound estimate of cost and schedule. It also serves as the technical definition from which the planning yard develops the detailed design and testing package required to build and test the ship. It provides the Navy with a digital, ship design knowledge base, including lessons learned, required to ensure that a proper development, analysis and evaluation can be conducted of any current or future planned.
Another area this project funds is the development of specific Navy ship criteria and standards for newly developed technologies. Additionally, as new laws are passed, new safety regulations and environmental criteria are developed and other legal/Congressional requirements identified, this project funds the translation into Navy ship design criteria
and standards. This project also funds the translation of the traditional Ship Specifications into performance-based criteria, which supports the development of design methodologies/tools which facilitate and optimize the transition from ship design documents to ship alterations. This project also supports ship survivability studies, superstructure integrity analysis, developmental and operational testing, gun weapon system software integration and next generation Machinery Control System (MCS) software integration.

DON Energy Initiative - Hybrid Electric Drive
This project includes an increment for the DON Energy Initiative related to the DDG 51 Hybrid Electric Drive to reduce DDG 51 Class ship energy consumption and increase mission effectiveness through longer time on station. This project supports propulsion at low ship speeds without the need for LM 2500 main engines. Fuel savings from the Hybrid Electric Drive system will be achieved by utilizing fewer gas turbines for propulsion and ship service power generation while also loading gas turbines generators at a more efficient operating load. Provides critical foundation for SECNAV and CNO objectives to achieve greater Navy-wide energy security.

Mobile Landing Platform (MLP) Afloat Forward Staging Base (AFSB) - contract design and related technical support leading to detail design and construction. The AFSB variant of the MLP will include additional accommodations, aviation and hangar space, additional logistics and UNREP capability (receive only) and additional C4I capability to support future missions.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Ship Contract Design	5.985	4.826	3.579
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 1803: *Ship Contract Design*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: For DDGs, specific efforts include, but are not limited to Technical Data Package development, Detailed Design Products, Engineering Analysis, feasibility studies, and topside analysis, related to the next generation Advanced Capability Build, and next generation MCS software integration. For CG's, specific efforts include, but are not limited to, developmental and operational test event planning, feasibility studies, and detailed design products to facilitate the CG class reaching expected service life. ***FY 2013 Plans:*** For DDGs, specific efforts include, but are not limited to Engineering Analysis, developmental and operational test events and planning, feasibility studies, structural analysis for hull integrity, and topside analysis related to the next generation Advanced Capability Build and next generation MCS software integration. For CG's, specific efforts include aluminum cracking studies, superstructure repair planning, sustainment studies and new alteration development to ensure CGs are able to reach expected service life. ***FY 2014 Plans:*** For DDGs, specific efforts include, but are not limited to Engineering Analysis, developmental and operational test events and planning, feasibility studies, structural analysis for hull integrity, and topside analysis related to the next generation Advanced Capability Build and next generation MCS software integration. For CG's, specific efforts include aluminum cracking studies, superstructure repair planning, sustainment studies and new alteration development to ensure CGs are able to reach expected service life.			
Title: Ship Contract Design- Afloat Forward Staging Base ***Articles:*** ***FY 2012 Accomplishments:*** Contract award for MLP AFSB contract design and technical support.	8.000 0	0.000	0.000
Title: DON Energy Initiative ***Articles:*** ***Description:*** Beginning in FY 2011, this project includes an increment for the DON Energy Initiative related to the DDG 51 Hybrid Electric Drive (HED) to reduce DDG 51 Class ship energy consumption and increase mission effectiveness through longer time on station.	14.297 0	13.050 2	15.333 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Contract award for detailed design including Machinery Control System (MCS) integration and long-lead-time-material for the Engineering Development Model's (EDM). ***FY 2013 Plans:*** Two EDMs further MCS integration development, initiate environmental qualification testing, initiate training, Integrated Logistic Support (ILS), and ship integration design development. ***FY 2014 Plans:*** Complete MCS integration development and environmental qualification testing. Continued training, Integrated Logistic Support (ILS), and ship integration design development.			
Accomplishments/Planned Programs Subtotals	28.282	17.876	18.912

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN 0900: *DDG Modernization*	126.373	452.371	285.999		285.999	517.702	469.890	530.225	801.286	Continuing	Continuing
• OPN 0960: *CG Modernization*	557.503	101.000	10.539		10.539	79.058	10.992	0.000	0.000	0.000	1,424.737
• WPN 4223: *CG Modernization*	46.533	1.591	1.990		1.990	0.025	0.017	0.029	0.013	0.000	151.614
• OPN 0140: *Hybrid Electric Drive*	0.000	0.000	16.956		16.956	46.009	47.003	47.862	48.711	Continuing	Continuing
• NDSF 0401: *MPF MLP Acquisition*	400.000	38.000	134.920		134.920	0.000	0.000	0.000	0.000	0.000	572.920
• SCN 3039: *MLP 4 AFSB*	0.000	0.000	524.000		524.000	0.000	0.000	0.000	0.000	0.000	524.000

Remarks

D. Acquisition Strategy

A full and open competition with a Fixed Price Incentive Fee Contract awarded for the development, qualification, and delivery of the Engineering Development Models (EDM) Hybrid Electric Drive (HED) and the initial HED production shipsets for the DDG 51 Fleet Modernization Program.

MLP AFSB: The first MLP AFSB will be modified after start of construction with the AFSB changes using NDSF funds. The second ship will be awarded as a MLP AFSB using SCN.

E. Performance Metrics

CG:

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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Aluminum sensitization study to determine the lifetime until sensitization for aluminum alloys and stress and buckling analysis of the CG 52 Class ship structure, and develop proposed fatigue fixes in the high stress areas to produce a technical report with modifications or improvements to the ship that may be necessary to preclude cracking in the areas of concern. Evaluation of composite patch and development of composite patch installation procedures as a method for repairing cracks. Development of ultrasonic impact treatment guidance as a method for repairing cracks. Evaluation of different coating that can prevent cracking and different aluminum alloys that are sensitization resistant.

DDG Modernization:
DT/OT for ACB12/TI12 DDGM. Additional efforts for DDG Mod include design and development for next generation MCS software integration, and the design/ development of a technical correction/solution for stanchion cracking at frame 299 Flight IIA.

Hybrid Electric Drive (HED) DON Energy Initiative:
Successful completion of Engineering Development Model (EDM) and complete fielding of First Article (FA) including contract award, design, manufacturing, and delivery. Successful completion of Factory Acceptance Test (FAT) and performance testing in Land Based Engineering Site (LBES). Commencement, completion, delivery and installation of Low Rate Initial Production (LRIP) units. Achieve fuel efficiency and increase on-station time.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CG Mod Electronics Systems Eng	C/CPAF	Lockheed:Martin, Moorestown, NJ	17.413	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
DON Energy Initiative - OEM	C/FPIF	TBD:TBD	9.746	13.568	Sep 2012	12.550	Jul 2013	13.000	Dec 2013	-		13.000	Continuing	Continuing	Continuing
DON Energy Initiative	WR	NSWC/ SSES:Philadelphia, PA	2.400	0.729	Apr 2012	0.500	May 2013	2.333	Dec 2013	-		2.333	0.000	5.962	
Engineering Developement and Design	TBD	TBD:TBD	0.000	1.085	Jan 2013	0.000		0.000		-		0.000	0.000	1.085	
Preliminary and Contract Design	TBD	NASSCO:San Diego, CA	0.000	6.500	Jan 2013	0.000		0.000		-		0.000	0.000	6.500	
		Subtotal	29.559	21.882		13.050		15.333		0.000		15.333			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DDG/CGM Program / Engineering Spt	WR	NSWC/DD:Dahlgren, VA	4.016	0.360	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
DDGM Program/ Engineering Spt / HED	Various	SUPSHIP/ BATH:Bath, ME	2.011	0.000		0.816	Dec 2012	1.320	Dec 2013	-		1.320	Continuing	Continuing	Continuing
DDG/CGM Program / Engineering Spt	C/CPAF	CSC/BAE:Hampton, VA	4.713	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
DDG/CGM Program / Engineering Spt	WR	SPAWARSYSCEN:Charleston, SC	1.397	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
CGM Program / Engineering Spt	WR	NRL:Washington, DC	0.617	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
CGM Program / Engineering Spt	C/CPAF	JJMA/ ALION:Washington, DC	2.428	0.519	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DDG/CGM Program / Engineering Spt	C/CPAF	Lockheed Martin:Moorestown, NJ	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
DDG/CGM Program / Engineering Spt	WR	NSWC/PHD:Port Hueneme, CA	1.560	1.329	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Integrated Logistics Support	TBD	CSC:Washington DC	0.000	0.085	Jan 2013	0.000		0.000		-		0.000	0.000	0.085	
CGM/DDG Program / Engineering Spt	WR	COMOPTEVFOR:Norfolk, VA	0.030	0.390	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
DDG/HED Program / Engineering Spt	WR	NSWC/ SSES:Philadelphia, PA	4.400	0.500	Feb 2012	0.730	May 2013	0.885	Dec 2013	-		0.885	Continuing	Continuing	Continuing
HED	C/CPAF	L3:New York, NY	1.048	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
CG Program / Engineering Spt	WR	NSWC/ BETHESDA:Bethesda, MD	2.690	2.439	Feb 2012	3.180	Dec 2012	1.000	Dec 2013	-		1.000	Continuing	Continuing	Continuing
CG Program / Engineering Spt	Various	SUPSHIP/ PASCAGOULA:Pascagoula, MS	8.437	0.448	Feb 2012	0.100	Dec 2012	0.374	Dec 2013	-		0.374	Continuing	Continuing	Continuing
		Subtotal	28.347	6.070		4.826		3.579		0.000		3.579			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational T&E	TBD	CSC:Washington DC	0.000	0.035	Jan 2013	0.000		0.000		-		0.000	0.000	0.035	
Live Fire T&E	TBD	CSC:Washington DC	0.000	0.100	Jan 2013	0.000		0.000		-		0.000	0.000	0.100	
Developmental T&E	TBD	COTF/MCOTEA/ CSC:DC & Virginia	0.000	0.105	Jan 2013	0.000		0.000		-		0.000	0.000	0.105	
		Subtotal	0.000	0.240		0.000		0.000		0.000		0.000	0.000	0.240	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 1803: *Ship Contract Design*

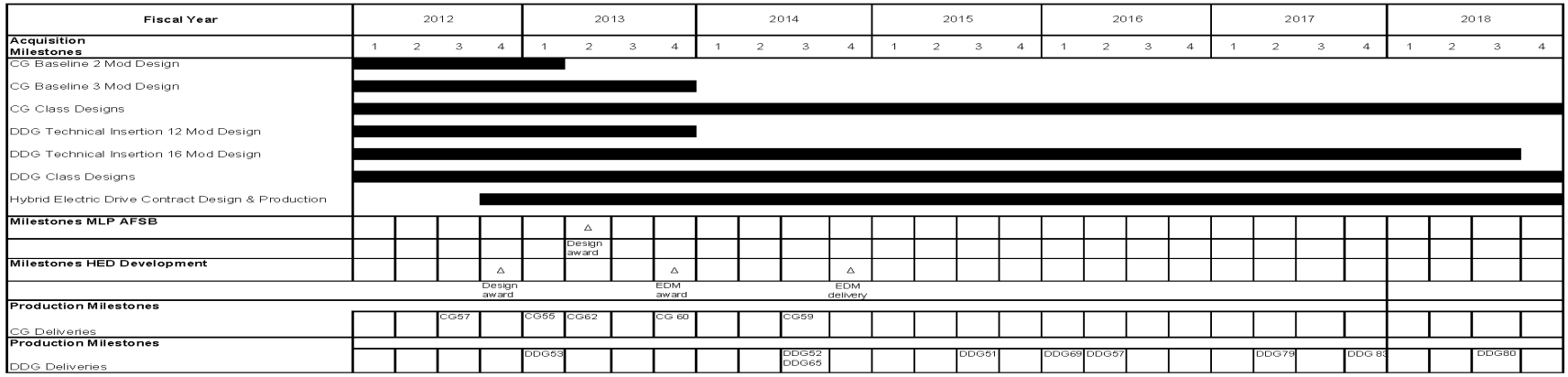
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Defense Aquisition Workforce	Various	Not Specified:Not Specified	0.023	0.000		0.000		0.000		-		0.000	0.000	0.023	
Program Mgmt Support	TBD	CSC:Washington DC	0.000	0.090	Jan 2013	0.000		0.000		-		0.000	0.000	0.090	
		Subtotal	0.023	0.090		0.000		0.000		0.000		0.000	0.000	0.113	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	57.929	28.282		17.876		18.912		0.000		18.912			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604567N: *Ship Contract Design/ Live Fire T&E*	**PROJECT** 1803: *Ship Contract Design*



CG Baseline 2 Mod Design (CG53-58)

CG Baseline 3 Mod Design (CG59-64)

CG Baseline 4 Mod Design (CG65-73)

DDG Technical Insertion 12 Mod Design

DDG Technical Insertion 16 Mod Design

Hybrid Electric Drive (HED) Engineering

HED EDM Award

HED EDM Delivery

HED LRIP

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604567N: *Ship Contract Design/ Live Fire T&E*	**PROJECT** 1803: *Ship Contract Design*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1803				
CGM Baseline 2 Mod Design	1	2012	1	2013
CGM Baseline 3 Mod Design	1	2012	4	2013
CG Class Design	1	2012	4	2018
DDG Technical Insertion 12 Mod Design	1	2012	4	2013
DDG Technical Insertion 16 Mod Design	1	2012	3	2018
Hybrid Electric Drive Contract Design and Production	4	2012	4	2018
Hybrid Electric Drive Engineering Development Model Contract Option Award	4	2013	4	2013
Hybrid Electric Drive Engineering Development Model Delivery	4	2014	4	2014
CG Deliveries (CG 57,55,62,60,59)	1	2012	3	2014
DDGM Deliveries (DDG 53,65,52,51,69,57,79,80,83)	1	2013	3	2018
Hybrid Electric Drive Contract Design Award	4	2012	4	2012
DDG Class Design	1	2012	4	2018
MLP AFSB Contract Design Award	2	2013	2	2013

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 2465: *LHA(R) FLT Design and Total Ship Integration*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2465: *LHA(R) FLT Design and Total Ship Integration*	163.122	21.439	33.729	30.813	-	30.813	23.260	13.196	4.882	6.760	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project provides the contract design, development and testing efforts for the Amphibious Assault Ship Replacement Program LHA(R). The LHA (R) is a ship construction program designed to: (1) provide a functional replacement for the Amphibious Assault Ships which begin reaching the end of their extended service lives after FY11 (2) be a key platform in the Amphibious Readiness Group (ARG) of the future and (3) provide for an affordable and sustainable amphibious ship development program. LHA(R) ships will provide forward presence and power projection as an integral part of Joint, inter-agency, and multi-national maritime expeditionary forces. Additionally, LHA(R) will be designed to operate for sustained periods in transit to and operations in an Amphibious Objective Area to include the embarkation, deployment, and landing of a Marine Landing Force in an assault by helicopters and tilt rotors (MV-22) supported by Joint Strike Fighters (F-35B).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: LHA (R) FLT 0 Design and Total Ship Integration - LHA 6	2.508	4.319	10.846
Articles:	0	0	0
FY 2012 Accomplishments:			
LHA 6 Completed update to the Test and Evaluation Master Plan (TEMP).			
LHA 6 Continued Development Testing (DT) and Operational Test and Evaluation (OT&E) preparations.			
LHA 6 Continued evaluating the interoperability data supporting Key Performance Parameters (KPP).			
LHA 6 Initiated Final Vulnerability Assessment Report (VAR).			
LHA 6 Initiated Total Ship Survivability Trial (TSST) preparations.			
FY 2013 Plans:			
LHA 6 Continue Development Testing (DT) and Operational Test and Evaluation (OT&E) preparations.			
LHA 6 Continue evaluating the interoperability data supporting Key Performance Parameters (KPP).			
LHA 6 Continue Final Vulnerability Assessment Report (VAR).			
LHA 6 Continue Total Ship Survivability Trial (TSST) preparations.			
FY 2014 Plans:			
LHA 6 Complete Development Testing (DT).			
LHA 6 Continue Operational Test and Evaluation (OT&E).			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 2465: *LHA(R) FLT Design and Total Ship Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
LHA 6 Continue evaluating the interoperability data supporting Key Performance Parameters (KPP). LHA 6 Continue Final Vulnerability Assessment Report (VAR). LHA 6 Continue Total Ship Survivability Trial (TSST) preparations.			
Title: LHA (R) FLT 1 Design and Total Ship Integration - LHA 8	18.931	29.410	19.967
Articles:	0	0	0
FY 2012 Accomplishments: LHA 8 Continued Capability Development Document (CDD) and Concepts of Operations (CONOPS) preparations. LHA 8 Initiated Preliminary Design efforts. LHA 8 Initiated development of Milestone Documents. LHA 8 Initiated Operational Test and Evaluation (OT&E) preparations. LHA 8 Initiated Test and Evaluation Master Plan (TEMP) Refresh for Flight 1. LHA 8 Initiated Early Industry Involvement. LHA 8 Prepared Gate Reviews. LHA (R)/NMSIC Continued Concept studies including Modeling and Simulation efforts for Marine Corps Systems Integration.			
FY 2013 Plans: LHA 8 Complete Preliminary Design. LHA 8 Complete Early Industry Involvement. LHA 8 Finalize Capability Development Document (CDD) and Concepts of Operations (CONOPS) preparations. LHA 8 Continue development of Milestone Documents. LHA 8 Continue Operational Test and Evaluation (OT&E) preparations. LHA 8 Continue Test and Evaluation Master Plan (TEMP) Refresh for Flight 1. LHA 8 Continue Gate Reviews. LHA 8 Initiate Contract Design. LHA 8 Initiate Operational Assessment efforts for Flight 1. LHA (R)/NMSIC Continue Concept studies including Modeling and Simulation efforts for Marine Corps Systems Integration.			
FY 2014 Plans: LHA 8 Complete Contract Design. LHA 8 Complete Test and Evaluation Master Plan (TEMP) Refresh for Flight 1. LHA 8 Complete Operational Assessment efforts for Flight 1. LHA 8 Continue development of Milestone Documents. LHA 8 Continue Operational Test and Evaluation (OT&E) preparations. LHA 8 Continue Gate Reviews.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 2465: *LHA(R) FLT Design and Total Ship Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
LHA 8 Issue Advance Procurement RFP. LHA (R)/NMSIC Continue Concept studies including Modeling and Simulation efforts for Marine Corps Systems Integration.			
Accomplishments/Planned Programs Subtotals	21.439	33.729	30.813

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN/3041: *LHA(R) Ships*	1,999.191	0.000	0.000		0.000	77.912	239.679	1,598.942	2,399.474	0.000	10,610.963
• SCN/5300: *Completion of Prior Year Shipbuilding Programs*	0.000	156.685	37.700		37.700	0.000	0.000	0.000	0.000	0.000	208.695

Remarks

D. Acquisition Strategy

Acquisition strategy signed February 7, 2005 approved strategy for sole source to Northrop Grumman Shipbuilding (NGSB) (Now Huntington Ingalls Industries, Inc.) to incorporate previous LHD engineering, design and producibility lessons-learned into LHA(R). Advanced Procurement (AP) contract for Long Lead-Time Material (LLTM) procurement and engineering support awarded July 05 with continuation of these efforts in FY06 prior to award of Detail Design and Construction (DD&C) contract on 1 June 2007.The AP contract was subsumed by the FPI DD&C contract.

LHA 7 DD&C contract awarded on May 31, 2012.

LHA 8 reincorporates the well deck. AP starts in 2015 to support FY17 DD&C award.

E. Performance Metrics

Successfully achieve Initial Operational Capability, successfully complete Operational Test and Milestone Reviews.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 2465: *LHA(R) FLT Design and Total Ship Integration*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Ship Design	WR	NSWC:Various	93.309	4.616	Feb 2012	0.000		0.000		-		0.000	0.000	97.925	
Ship Design	C/CPFF	HII:Pascagoula, MS	4.819	0.200	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Ship Design	TBD	TBD:Various	0.000	4.639	Dec 2011	21.061	Dec 2012	11.838	Dec 2013	-		11.838	4.000	41.538	
Special Studies	WR	NSWC:Panama City, FL	2.700	2.100	May 2012	2.500	Dec 2012	2.582	Dec 2013	-		2.582	8.000	17.882	
		Subtotal	100.828	11.555		23.561		14.420		0.000		14.420			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	JITC:Fort Huachuca, AZ	3.303	0.290	Feb 2012	0.331	Dec 2012	0.307	Dec 2013	-		0.307	0.300	4.531	
Operational Test & Evaluation	WR	OPTEVFOR/ MCOTEA:Norfolk, VA/Quantico, VA	6.955	1.890	Dec 2011	1.193	Dec 2012	5.659	Dec 2013	-		5.659	13.090	28.787	
Live Fire Test & Evaluation	WR	NSWC:Carderock, MD	43.863	4.650	Dec 2011	6.295	Dec 2012	6.080	Dec 2013	-		6.080	5.600	66.488	
		Subtotal	54.121	6.830		7.819		12.046		0.000		12.046	18.990	99.806	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	C/CPFF	Alion:Washington, DC	7.830	2.954	Jun 2012	2.249	Dec 2012	4.247	Dec 2013	-		4.247	3.750	21.030	
Travel	Various	Navsea Travel:Washington, DC	0.332	0.100	Feb 2012	0.100	Dec 2012	0.100	Dec 2013	-		0.100	0.200	0.832	
Defense Acquisition Workforce	Various	Various:Various	0.011	0.000		0.000		0.000		-		0.000	0.000	0.011	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 2465: *LHA(R) FLT Design and Total Ship Integration*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	8.173	3.054		2.349		4.347		0.000		4.347	3.950	21.873	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	163.122	21.439		33.729		30.813		0.000		30.813			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604567N: *Ship Contract Design/ Live Fire T&E*	**PROJECT** 2465: *LHA(R) FLT Design and Total Ship Integration*

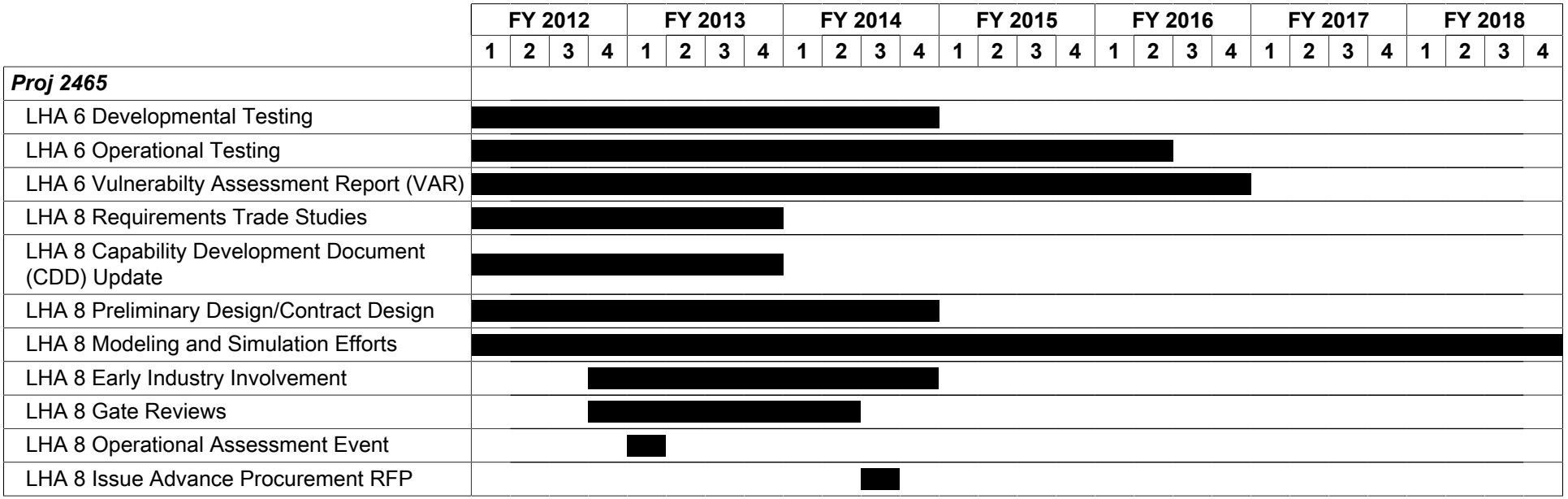


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 2465: *LHA(R) FLT Design and Total Ship Integration*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2465				
LHA 6 Developmental Testing	1	2012	4	2014
LHA 6 Operational Testing	1	2012	2	2016
LHA 6 Vulnerabilty Assessment Report (VAR)	1	2012	4	2016
LHA 8 Requirements Trade Studies	1	2012	4	2013
LHA 8 Capability Development Document (CDD) Update	1	2012	4	2013
LHA 8 Preliminary Design/Contract Design	1	2012	4	2014
LHA 8 Modeling and Simulation Efforts	1	2012	4	2018
LHA 8 Early Industry Involvement	4	2012	4	2014
LHA 8 Gate Reviews	4	2012	2	2014
LHA 8 Operational Assessment Event	1	2013	1	2013
LHA 8 Issue Advance Procurement RFP	3	2014	3	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3133: *Ship to Shore Connectors Contract Design*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3133: *Ship to Shore Connectors Contract Design*	92.512	2.398	0.876	0.069	-	0.069	3.800	3.606	3.681	1.540	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Ship to Shore Connector (SSC) - This project provides the Preliminary and Contract design and Class test efforts for the SSC Program. The SSC program provides the capability to rapidly move assault forces within the littoral operational environment to accomplish Unified Command Plan (UCP) missions and ensures the Joint Force Commander's (JFCDR's) ability to conduct amphibious operations and operate over the high water mark, including movement over ice, mud, rivers, swamps, and marshes. This project provides for the Systems Development and Demonstration package required for the solicitation for Detail Design and Construction and test of the initial article. Class Test and evaluation of components and systems will also be completed under this project. SSC provides the functional replacement for the LCAC Class of ships, which begin reaching extended service life in 2015. This project also encompasses those tasks required to develop the contract and technical data package necessary to support the procurement of the SSC Test and Training craft, including, but not limited to engineering support, programmatic and program support, logistics support, manpower and program related studies. The Test and Training craft and first production craft (Craft 101), which will be operationally fielded, are funded in RDT&E under this PE, Project 3137.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Ship to Shore Connector (Contract Des)	2.398	0.876	0.069
Articles:	0	0	0
FY 2012 Accomplishments: Continue Class Test and Evaluation program including Test Planning and Coordination, Interoperability Testing, Vulnerability Assessment Report (VAR), Live Fire Test and Evaluation (LFT&E) Paper Studies, Surrogate tests, and LFT&E Document Coordination.			
FY 2013 Plans: Continue Class Test and Evaluation program including Test Planning and Coordination, Interoperability Testing, Vulnerability Assessment Report (VAR), Live Fire Test and Evaluation (LFT&E) Paper Studies, Surrogate tests, conduct Technical Readiness Review (TRR) and Operational Assessment (OA), TEMP and LFT&E Management plan updates and LFT&E Document Coordination.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3133: *Ship to Shore Connectors Contract Design*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue Class Test and Evaluation program including Test Planning and Coordination, Interoperability Testing, Vulnerability Assessment Report (VAR), Live Fire Test and Evaluation (LFT&E) Paper Studies, Surrogate tests, TEMP and LFT&E Management plan updates and LFT&E Document Coordination.			
Accomplishments/Planned Programs Subtotals	2.398	0.876	0.069

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E,N 3137: *SSC Construction*	48.564	130.394	89.888		89.888	56.784	7.042	4.113	2.267	0.000	414.743
• SCN 5112: *Ship to Shore Connector*	0.000	0.000	0.000		0.000	90.948	231.459	287.446	392.200	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Test and Training craft and first production craft will be procured and constructed with RDT&E funds. The Test and Training craft Detail Design contract includes options for construction of the T&T craft and additional production craft (Craft 101).

E. Performance Metrics

Begin Test and Evaluation Master Plan (TEMP) updates. Begin Developmental Testing Phase B and Operational Testing Phase B.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3133: *Ship to Shore Connectors Contract Design*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Ship Design	C/CPFF	CSC:Washington, DC	14.330	0.000		0.000		0.000		-		0.000	0.000	14.330	
Preliminary/Contract Design	Various	Various:Various	31.140	0.000		0.000		0.000		-		0.000	0.000	31.140	
System Engineering	Various	Various:Various	6.241	0.000		0.000		0.000		-		0.000	0.000	6.241	
		Subtotal	51.711	0.000		0.000		0.000		0.000		0.000	0.000	51.711	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Support	WR	NSWC PCD:Panama City, FL	4.636	0.000		0.000		0.000		-		0.000	0.000	4.636	
Software Development	Various	Various:Various	2.219	0.000		0.000		0.000		-		0.000	0.000	2.219	
Integrated Logistics Support	WR	NSWC:Various	3.365	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Studies & Analyses	TBD	Various:Various	5.705	0.006	Dec 2011	0.055	Oct 2012	0.004	Oct 2013	-		0.004	0.000	5.770	
		Subtotal	15.925	0.006		0.055		0.004		0.000		0.004			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various:Various	0.033	0.394	Dec 2011	0.000		0.000		-		0.000	0.000	0.427	
Operational Test & Evaluation	Various	Various:Various	1.601	0.351	Dec 2011	0.316	Nov 2012	0.065	Oct 2013	-		0.065	Continuing	Continuing	Continuing
Live Fire Test & Evaluation	Various	Various:Various	3.834	1.497	Dec 2011	0.505	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	5.468	2.242		0.821		0.065		0.000		0.065			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3133: *Ship to Shore Connectors Contract Design*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPFF	CSC/ Alion:Washington, DC	9.323	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC:Various	3.689	0.000		0.000		0.000		-		0.000	0.000	3.689	
Program Management Support	Various	Various:Various	6.120	0.000		0.000		0.000		-		0.000	0.000	6.120	
Travel	Various	NAVSEA Travel:Washington, DC	0.150	0.150	Mar 2012	0.000		0.000		-		0.000	0.000	0.300	
Defense Acquisition Workforce	Various	Various:Various	0.126	0.000		0.000		0.000		-		0.000	0.000	0.126	
		Subtotal	19.408	0.150		0.000		0.000		0.000		0.000			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	92.512	2.398		0.876		0.069		0.000		0.069			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3133: *Ship to Shore Connectors Contract Design*

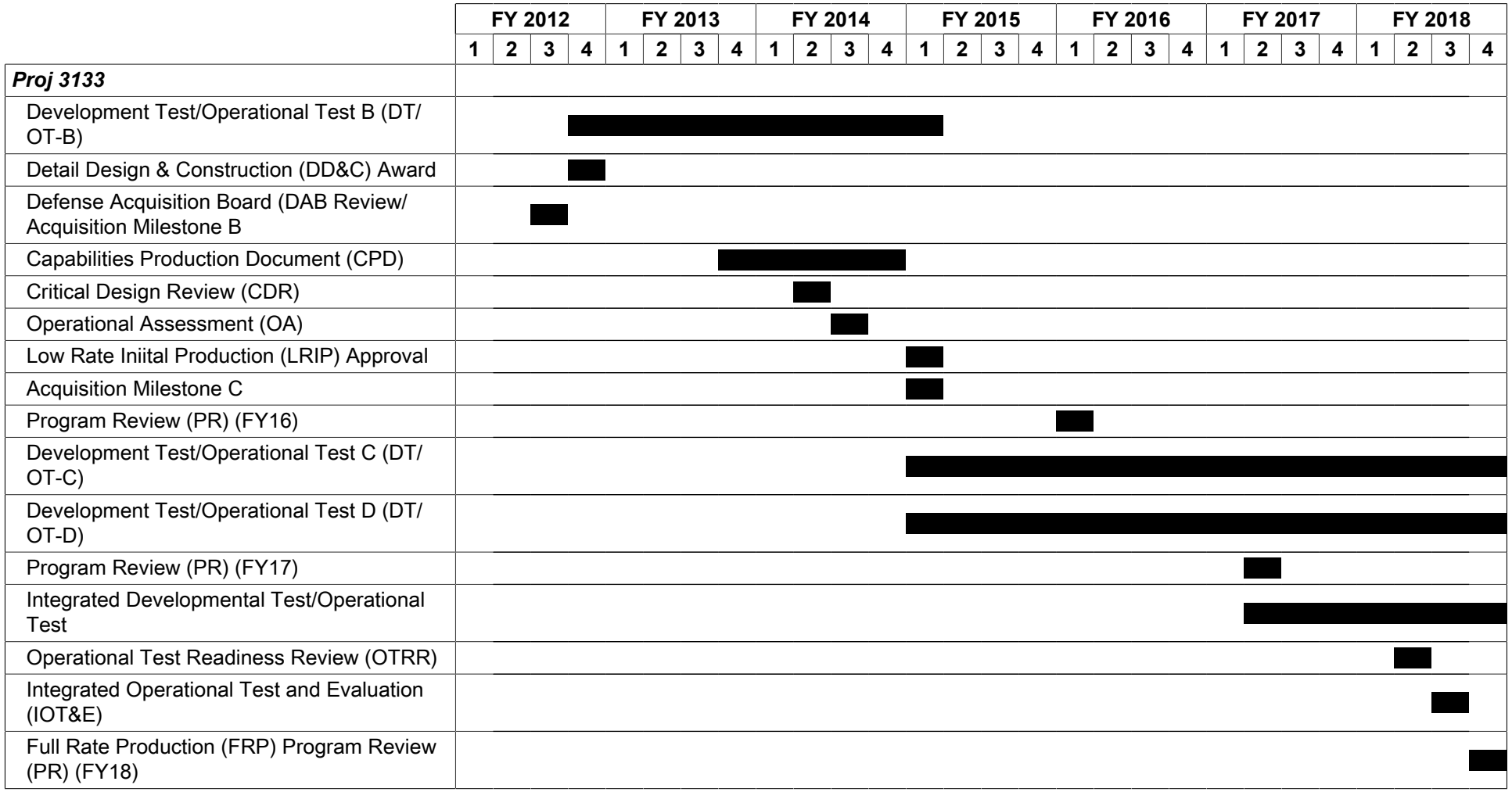


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604567N: *Ship Contract Design/ Live Fire T&E*	**PROJECT** 3133: *Ship to Shore Connectors Contract Design*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3133				
Development Test/Operational Test B (DT/OT-B)	4	2012	1	2015
Detail Design & Construction (DD&C) Award	4	2012	4	2012
Defense Acquisition Board (DAB Review/Acquisition Milestone B	3	2012	3	2012
Capabilities Production Document (CPD)	4	2013	4	2014
Critical Design Review (CDR)	2	2014	2	2014
Operational Assessment (OA)	3	2014	3	2014
Low Rate Iniital Production (LRIP) Approval	1	2015	1	2015
Acquisition Milestone C	1	2015	1	2015
Program Review (PR) (FY16)	1	2016	1	2016
Development Test/Operational Test C (DT/OT-C)	1	2015	4	2018
Development Test/Operational Test D (DT/OT-D)	1	2015	4	2018
Program Review (PR) (FY17)	2	2017	2	2017
Integrated Developmental Test/Operational Test	2	2017	4	2018
Operational Test Readiness Review (OTRR)	2	2018	2	2018
Integrated Operational Test and Evaluation (IOT&E)	3	2018	3	2018
Full Rate Production (FRP) Program Review (PR) (FY18)	4	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3137: *SSC Construction*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3137: *SSC Construction*	75.691	48.564	130.394	89.888	-	89.888	56.784	7.042	4.113	2.267	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project funds the Ship to Shore Connector (SSC) Engineering & Manufacturing Development phase which includes Detail Design and Construction, Integrated Logistics Support (ILS), Government Furnished Equipment (GFE), Program support, and Outfitting and Post Delivery for the first two crafts. The lead craft will be maintained as a test and training platform throughout its life cycle. The second craft (Craft 101) will be available to support IOT&E as needed, but will be a fleet asset after delivery. The SSC program provides the capability to rapidly move assault forces within the littoral operational environment to accomplish Unified Command Plan (UCP) missions, and ensures the Joint Force Commander's (JFCDR's) ability to conduct amphibious operations and operate over the high water mark, including movement over ice, mud, rivers, swamps and marshes. The SSC program provides the functional replacement for the LCAC Class of ships, which begin reaching extended service life in 2015.

TEST AND TRAINING CRAFT:

Plans/Basic Construction:
TOTAL 227.9 (FY14 37.1)
Change Orders:
TOTAL 18.7 (FY14 8.5)
Electronics
TOTAL 8.3 (FY14 .4)
HM&E:
TOTAL 32.3 (FY14 7.8)
Other Support:
TOTAL 46.0 (FY14 6.4)
Ordnance
Total 0.0 (FY14 0.0)
Post Delivery/Outfitting:
TOTAL 4.2 (FY14 0.0)
Ship Total:
TOTAL 337.4 (FY14 60.2)

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3137: *SSC Construction*

CRAFT 101:
Basic Construction
TOTAL 51.0 (FY14 15.3)
Change Orders:
TOTAL 2.2 (FY14 1.1)
Electronics:
TOTAL: 2.2 (FY14 .1)
HM&E
TOTAL: 3.8 (FY14 0.0)
Other Support
TOTAL: 15.9(FY14 13.2)
Ordnance
TOTAL 0.0 (FY14 0.0)
Post Delivery/Outfitting
TOTAL 2.2 (FY14 0.0)
Ship Total:
TOTAL 77.3 (FY14 29.7)

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: SSC Construction	48.564	130.394	89.888
Articles:	0	1	0
FY 2012 Accomplishments: Milestone B approval; Award Detail Design and Construction Contract; Begin Detail Design and Construction planning efforts including software development and procurement of Contractor Furnished Equipment (CFE) Long Lead Time Material (LLTM) for the test and training craft.			
FY 2013 Plans: Continue Detail Design and Construction planning efforts; award contract option for Craft 101 and begin LLTM procurement and production planning.			
FY 2014 Plans: Continue Detail Design and Construction planning efforts; complete Craft 101 LLTM procurement and production planning; begin fabrication of Craft 101			
Accomplishments/Planned Programs Subtotals	48.564	130.394	89.888

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3137: *SSC Construction*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E,N 3133: *Ship to Shore Connectors Contract Design*	2.398	0.876	0.069		0.069	3.800	3.606	3.681	1.540	Continuing	Continuing
• SCN 5112: *Ship to Shore Connector*	0.000	0.000	0.000		0.000	90.948	231.459	287.446	392.200	Continuing	Continuing

Remarks

D. Acquisition Strategy

The first two craft will be designed and constructed with RDT&E funds. The Test and Training Craft (Craft 100) Detail Design and Construction contract includes options for follow craft to be procured with RDT&E and SCN funds.

E. Performance Metrics

Award options for follow on craft (Craft 101) and SCN funded craft
Deliver Test and Training Craft (Craft 100)
Deliver Craft 101

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3137: *SSC Construction*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Trng Craft Ship Design	C/CPFF	Alion:Washington, DC	2.670	6.190	Sep 2012	3.250	Oct 2012	4.748	Oct 2013	-		4.748	0.000	16.858	
Test & Trng Craft Detail Design/Construction	C/FPIF	Textron:New Orleans, LA	69.230	15.860	Jul 2012	66.080	Oct 2012	37.061	Oct 2013	-		37.061	0.000	188.231	
Test & Trng Craft Government Furnished Equipment (GFE)	Various	Various:Various	0.210	5.410	Sep 2012	1.490	Oct 2012	1.800	Oct 2013	-		1.800	0.000	8.910	
Test & Trng Craft Change Orders	C/FPIF	Textron:New Orleans, LA	0.000	0.600	Jul 2012	5.330	Oct 2012	8.460	Oct 2013	-		8.460	0.000	14.390	
Craft 101 Ship Design	C/CPFF	Alion:Washington, DC	0.000	0.000		2.900	Oct 2012	0.000		-		0.000	0.000	2.900	
Craft 101 LLTM & Construction Planning	C/FPIF	Textron:New Orleans, LA	0.000	0.000		21.160	Mar 2013	15.180	Oct 2013	-		15.180	0.000	36.340	
Craft 101 Government Furnished Equipment	Various	Various:Various	0.000	0.000		3.060	Mar 2013	0.070	Oct 2013	-		0.070	0.000	3.130	
Craft 101 Change Orders	C/FPIF	Textron:New Orleans, LA	0.000	0.000		1.120	Mar 2013	1.080	Oct 2013	-		1.080	0.000	2.200	
		Subtotal	72.110	28.060		104.390		68.399		0.000		68.399	0.000	272.959	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Craft 101 Studies and Analysis	Various	Various:Various	0.000	0.000		1.760	Oct 2012	1.856	Oct 2013	-		1.856	0.000	3.616	
Test & Trng Craft Integrated Logistics Support	WR	NSWC:Various	0.520	4.590	Aug 2012	5.410	Oct 2012	0.000		-		0.000	0.000	10.520	
Craft 101 Integrated Logistics Support	WR	NSWC:Various	0.000	0.000		0.000		6.020	Oct 2013	-		6.020	0.000	6.020	
Craft 100 Studies and Analysis	Various	Various:Various	0.000	1.620	Aug 2012	6.280	Oct 2012	3.770	Oct 2013	-		3.770	0.000	11.670	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3137: *SSC Construction*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	0.520	6.210		13.450		11.646		0.000		11.646	0.000	31.826	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Trng Craft Construction Test Program	Various	Various:Various	0.050	2.190	Dec 2012	1.850	Oct 2012	1.742	Oct 2013	-		1.742	Continuing	Continuing	Continuing
		Subtotal	0.050	2.190		1.850		1.742		0.000		1.742			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Trng Craft Contractor Engineering Support	C/CPFF	CSC/ Alion:Washington, DC	2.710	7.160	Jul 2012	7.394	Jun 2013	1.810	Jun 2014	-		1.810	0.000	19.074	
Travel	Various	Various:Various	0.000	0.060	Jul 2012	0.060	Oct 2012	0.060	Oct 2013	-		0.060	0.000	0.180	
Test & Trng Craft Government EngineeringSupport	WR	NSWC:Various	0.301	4.884	Aug 2012	3.250	Oct 2012	0.910	Oct 2013	-		0.910	0.000	9.345	
Craft 101 Contractor Engineering Services	C/CPFF	Alion:Washington, DC	0.000	0.000		0.000		2.871	Oct 2013	-		2.871	0.000	2.871	
Craft 101 Government Engineering Services	WR	NSWC:Various	0.000	0.000		0.000		2.450	Oct 2013	-		2.450	0.000	2.450	
		Subtotal	3.011	12.104		10.704		8.101		0.000		8.101	0.000	33.920	

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	75.691	48.564		130.394		89.888		0.000		89.888			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3137: *SSC Construction*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3137: *SSC Construction*

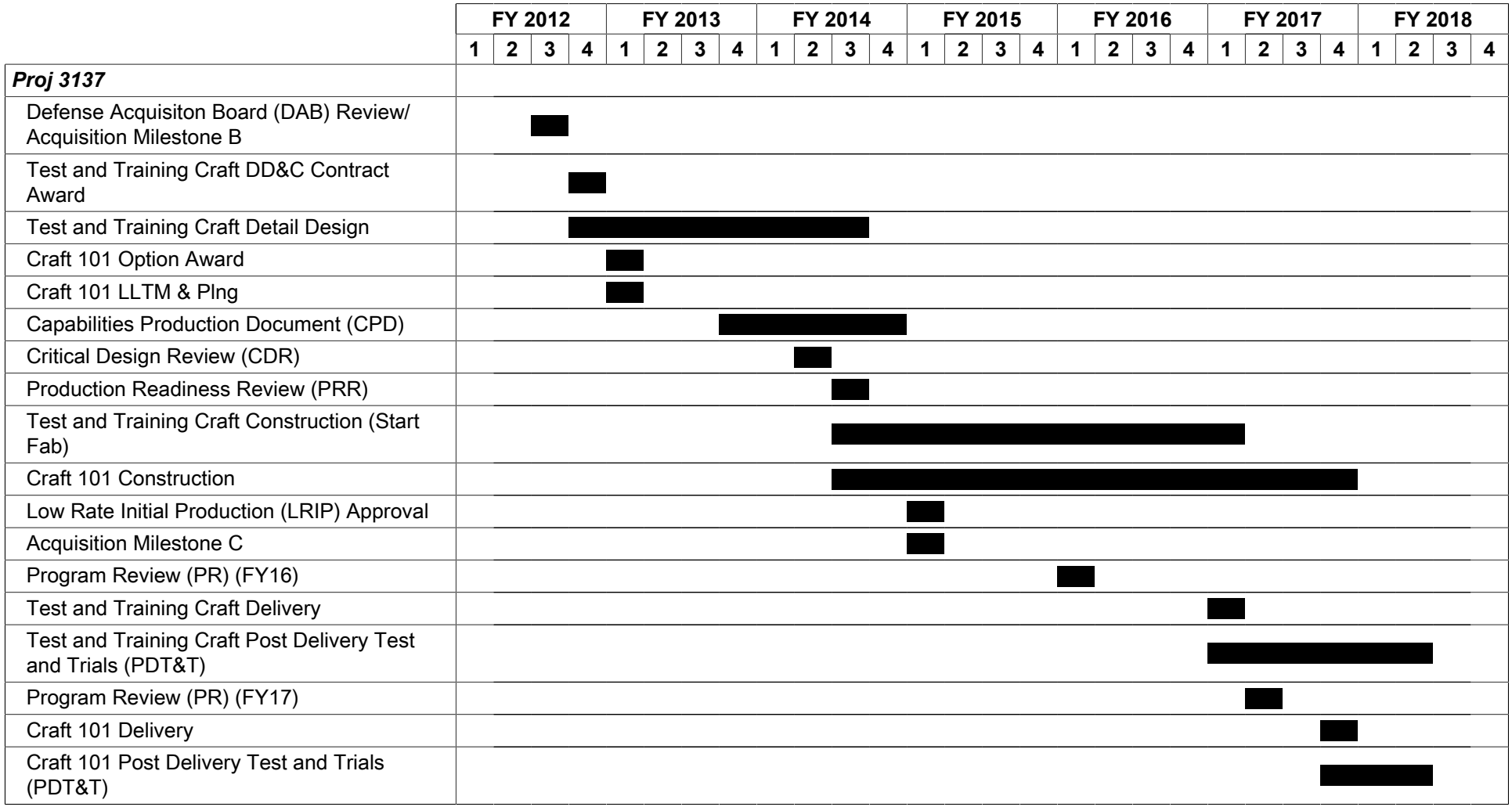


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3137: *SSC Construction*

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Full Rate Production (FRP) Program Review (PR) (FY18)																												■

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3137: *SSC Construction*

Schedule Details

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 3137				
Defense Acquisiton Board (DAB) Review/Acquisition Milestone B	3	2012	3	2012
Test and Training Craft DD&C Contract Award	4	2012	4	2012
Test and Training Craft Detail Design	4	2012	3	2014
Craft 101 Option Award	1	2013	1	2013
Craft 101 LLTM & Plng	1	2013	1	2013
Capabilities Production Document (CPD)	4	2013	4	2014
Critical Design Review (CDR)	2	2014	2	2014
Production Readiness Review (PRR)	3	2014	3	2014
Test and Training Craft Construction (Start Fab)	3	2014	1	2017
Craft 101 Construction	3	2014	4	2017
Low Rate Initial Production (LRIP) Approval	1	2015	1	2015
Acquisition Milestone C	1	2015	1	2015
Program Review (PR) (FY16)	1	2016	1	2016
Test and Training Craft Delivery	1	2017	1	2017
Test and Training Craft Post Delivery Test and Trials (PDT&T)	1	2017	2	2018
Program Review (PR) (FY17)	2	2017	2	2017
Craft 101 Delivery	4	2017	4	2017
Craft 101 Post Delivery Test and Trials (PDT&T)	4	2017	2	2018
Full Rate Production (FRP) Program Review (PR) (FY18)	4	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3179: *CVN-79 Total Ship Integration*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3179: *CVN-79 Total Ship Integration*	114.919	18.718	11.187	11.927	-	11.927	16.573	16.223	18.555	15.749	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Development and related testing of CVN 78 Class aircraft carrier specific technologies, the infusion of the ship technology base into existing and future aircraft carriers, and the potential realization of subsystem design capabilities not currently feasible. This project also funds the Contract Design efforts for the CVN 79. This project transitions the minimum sustaining technologies required to address obsolescence, critical survivability shortfalls as identified in CVN 78 Class testing, future requirements, and technologies which did not mature in time to support the CVN 78. All systems developed in this project have the potential to support emerging requirements and other promising systems technologies for insertion into new aircraft carrier designs. The emphasis is directed toward developing ship hull, mechanical, propulsion, electrical, aviation, warfare systems, and combat support systems, sub-systems and components to maintain aircraft carrier affordability, manpower requirements, survivability, and operational capabilities and to meet the requirements of existing and pending regulations and statutes critical to the operation of future aircraft carriers. This project also encompasses those tasks required to develop the contract data package necessary to support CVN 79 procurement, including, but not limited to, engineering support, programmatic and program support, logistics support, modeling and simulation, manpower and program related studies, and design support systems, such as the Integrated Digital Environment. In addition, this project focuses on significant procurement and life cycle cost reduction compared to the first ship of the class. Cost reductions are sought, developed and implemented in the areas of design, labor and material.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: CVN-79 Total Ship Integration	18.718	11.187	11.927
Articles:	0	0	0

FY 2012 Accomplishments:

FY 12 accomplishments included development and implementation of Business Case Analyses (BCA's) that resulted in reduced procurement and life cycle costs for CVN 79. BCA's implemented in FY 12 included the following: changing from hydraulic to electric aircraft elevators, removal of the Captain's gig and Admiral's barge, elimination of vinyl tile in non-essential spaces, elimination of decorative bulkheads and ships dress lighting, and replacing two paint coatings with one coat in foam-filled voids.

Other efforts included developing advanced material buy strategies that allowed the shipbuilder to purchase full ship sets of expensive items, (i.e. A/C plants), instead of buying only when needed during the construction cycle. This approach allowed for significantly reduced procurement costs for those items. Conducted an analysis of CVN 79 construction units (super lifts), and

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3179: *CVN-79 Total Ship Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
evaluated opportunities to increase pre-outfitting of those units to reduce labor costs. Reviewed and optimized the outfitting of 59 super lifts, resulting in significant man-hour savings. Continued CVN 78 Class shock, vibration, and electromagnetic interference (EMI) analysis efforts. Efforts supported the overall CVN 78 Class by validating the shock robustness and EMI compliance of components per the ship specification. ***FY 2013 Plans:*** Continue processing cost reduction ideas into BCA's and implementing BCA's into the cost model, thereby reducing the overall procurement cost of the ship. Multiple cost reduction ideas that challenge the ship specification will be further analyzed and developed into BCA's in FY13 and include the following: deletion of shipboard liquid oxygen plant, deletion of the pull test on lifting pads, deleting the requirement to demonstrate manual operation of stores elevators, deleting the requirement for aircraft tow bar stowage, and removal of the requirement for a helium storage system. Other more complex changes will also be worked on in FY13, including the deletion of SPN 46, deleting the fire insulation from the hangar bay and deleting the arc fault detection system on the ship. ***FY 2014 Plans:*** Conduct an analysis of GFE obsolescence prior to installation on the ship. Other projects include continuation of affordability efforts through analysis of build practices and identification of optimized build strategies based on lessons learned from CVN 78. Continuation of super lift reviews will identify further opportunities to move work out of the dry-dock and back onto the platen or component fabrication shops, reducing construction time and cost. Conduct an analysis of warfare system GFE. Projects in this area include the following: GFI review and comment (Schedule A-C input), Aviation LI-ION battery locker requirements analysis and aviation fuels operational sequencing system review. Continue efforts to fully integrate all aviation and land combat systems on ship with increased efficiency to support the warfighter.			
Accomplishments/Planned Programs Subtotals	18.718	11.187	11.927

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTEN/0605312N: *Project Units 2208, 4004*	58.163	97.534	74.641		74.641	39.740	43.340	40.650	39.234	Continuing	Continuing
• RDTEN/0603570N: *Propulsion Plant Development (PU 2692)*	65.808	62.020	57.499		57.499	56.693	0.000	0.000	0.000	0.000	1,526.874

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3179: *CVN-79 Total Ship Integration*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN/2001: *Carrier Replacement Program*	554.798	608.195	944.866		944.866	1,834.072	1,918.441	2,539.826	2,954.419	Continuing	Continuing
• SCN/5300: *Completion of Prior Year Shipbuilding Programs*	0.000	0.000	588.100		588.100	729.000	0.000	0.000	0.000	0.000	1,317.100

Remarks

D. Acquisition Strategy

The CVN 78 is the first ship of the CVN 78 Class of aircraft carriers designed to replace USS ENTERPRISE and the ships of the NIMITZ Class. The CVN 78 class will feature a new nuclear propulsion and electrical generation/distribution system, new electromagnetic aircraft launching system (EMALS), advanced arresting gear (AAG) system, all electric auxiliaries, warfare system improvements, survivability enhancements, improved weapons handling, and improved aircraft servicing. These design features will result in lower manpower and total ownership costs as compared to the NIMITZ Class. Additionally, the following war fighting benefits will be realized: increased sortie generation rate, improved ship self-defense capability, increased launch and recovery capability/flexibility, increased operational availability, and increased flexibility to support future upgrades.

E. Performance Metrics

Successfully complete system development efforts for designated new and modified shipboard system, including developmental test and evaluation documents. Successfully complete design related activities associated with integration of new and modified shipboard systems into the ship, including developmental test and evaluation documentation. Successfully perform system design and analysis studies. Successfully support design integration and analysis. Successfully complete or support feasibility and tradeoff studies on new and modified shipboard systems, technologies, and proposed modifications. Studies shall include requirements and engineering analysis; identification of subsystem, integration, and logistics impacts; cost estimates; analysis of construction schedule impacts; and conduct/ support of shipchecks. Successfully provide Manpower Workload Analysis associated with design and policy activities, and with integration of new and modified system/equipment. Successfully complete the development of multiple Business Case Analyses (BCAs) that demonstrate technology, process, requirements and/or infrastructure improvements that will reduce the man hours (or equivalent material costs) for CVN 79 Construction.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3179: *CVN-79 Total Ship Integration*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Total Ship Integration	C/CPAF	HII:VA	66.112	12.921	Dec 2011	7.797	Dec 2012	3.121	Nov 2013	-		3.121	Continuing	Continuing	Continuing
Total Ship Integration	WR	NSWC Carderock:MD	11.962	0.150	Nov 2011	0.000		0.711	Nov 2013	-		0.711	Continuing	Continuing	Continuing
Total Ship Integration	WR	NSWC Dahlgren:VA	7.400	0.411	Nov 2011	0.000		1.052	Nov 2013	-		1.052	Continuing	Continuing	Continuing
Total Ship Integration	WR	NAWCAD Pax River:MD	3.210	0.373	Nov 2011	0.000		1.185	Nov 2013	-		1.185	Continuing	Continuing	Continuing
Total Ship Integration	WR	SPAWAR:SD	2.812	0.337	Nov 2011	0.000		0.288	Nov 2013	-		0.288	Continuing	Continuing	Continuing
Total Ship Integration	C/CPFF	NAVSEA SEAPORT:DC	13.154	3.309	Nov 2011	3.390	Jan 2013	4.021	Nov 2013	-		4.021	Continuing	Continuing	Continuing
Total Ship Integration	C/CPAF	Raytheon:MA	4.633	0.825	Dec 2011	0.000		1.549	Dec 2013	-		1.549	Continuing	Continuing	Continuing
Total Ship Integration	WR	SSC Charleston:SC	0.232	0.038	Dec 2011	0.000		0.000		-		0.000	0.000	0.270	
Total Ship Integration	C/CPFF	SAIC:VA	0.551	0.000		0.000		0.000		-		0.000	0.000	0.551	
		Subtotal	110.066	18.364		11.187		11.927		0.000		11.927			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation	C/CPFF	FISC:VA	0.000	0.181	Oct 2011	0.000		0.000		-		0.000	0.000	0.181	
Developmental Test & Evaluation	WR	CARDEROCK:MD	4.549	0.173	Oct 2011	0.000		0.000		-		0.000	0.000	4.722	
Developmental Test & Evaluation	WR	NUWC NEWPORT:RI	0.123	0.000		0.000		0.000		-		0.000	0.000	0.123	
		Subtotal	4.672	0.354		0.000		0.000		0.000		0.000	0.000	5.026	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 3179: *CVN-79 Total Ship Integration*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Defense Acquisition Workforce	Various	Various:Mis	0.181	0.000		0.000		0.000		-		0.000	0.000	0.181	
		Subtotal	0.181	0.000		0.000		0.000		0.000		0.000	0.000	0.181	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	114.919	18.718		11.187		11.927		0.000		11.927			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604567N: *Ship Contract Design/ Live Fire T&E*	**PROJECT** 3179: *CVN-79 Total Ship Integration*

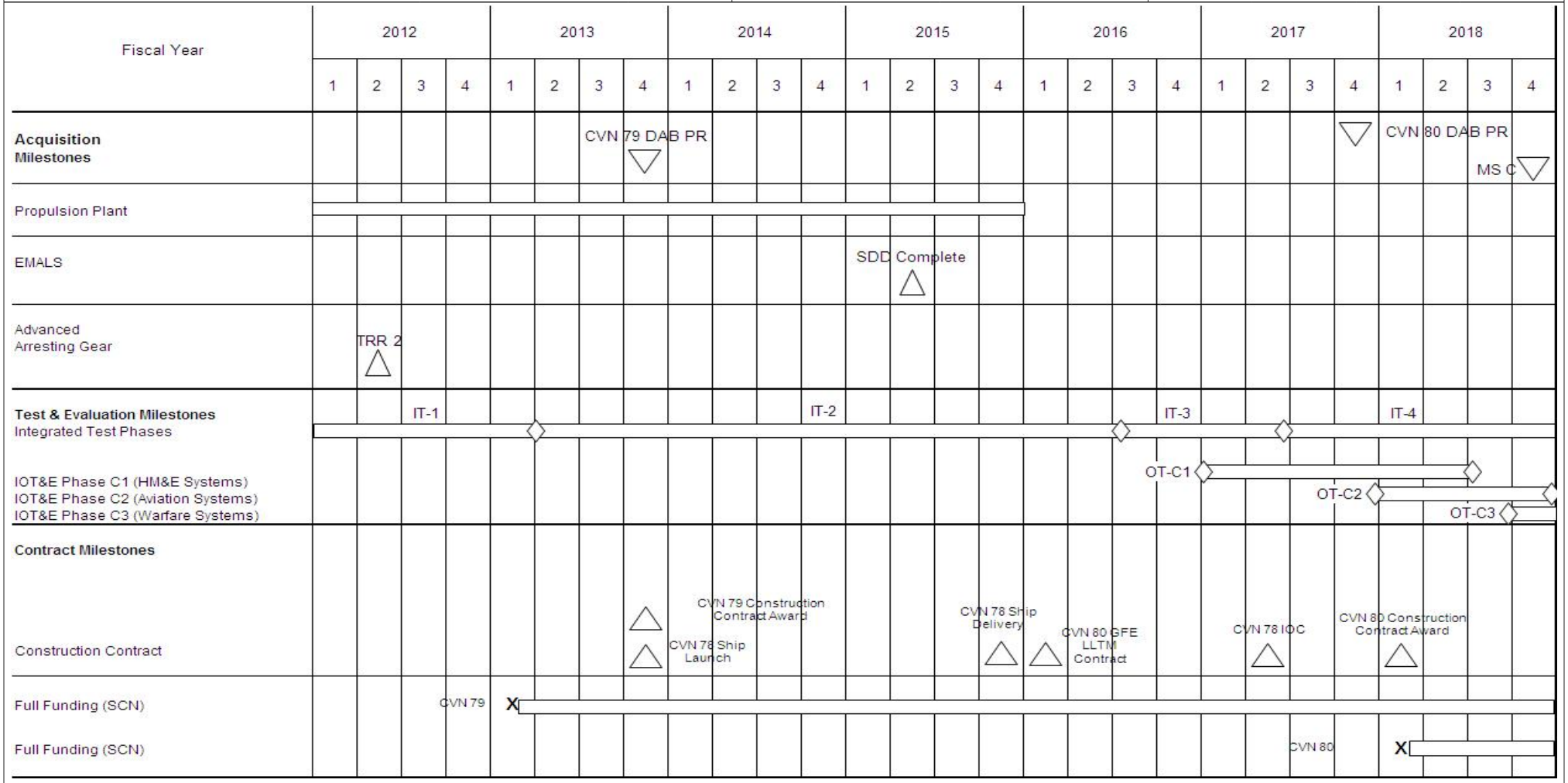


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604567N: *Ship Contract Design/ Live Fire T&E*	**PROJECT** 3179: *CVN-79 Total Ship Integration*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3179				
CVN 79 DAB PR	4	2013	4	2013
CVN 80 DAB PR	4	2017	4	2017
Milestone C	4	2018	4	2018
Propulsion Plant	1	2012	4	2015
EMALS SDD Complete	2	2015	2	2015
AAG TRR 2 (IT)	2	2012	2	2012
Integrated Tests 1 (IT-1)	1	2012	1	2013
Integrated Tests 2 (IT-2)	1	2013	3	2016
Integrated Tests 3 (IT-3)	3	2016	2	2017
Integrated Tests 4 (IT-4)	2	2017	4	2018
Initial Operational Test & Evaluation - Phase 1 (OT-C1)	1	2017	3	2018
Initial Operational Test & Evaluation - Phase 2 (OT-C2)	4	2017	4	2018
Initial Operational Test & Evaluation - Phase 3 (OT-C3)	3	2018	4	2018
CVN 78 Ship Launch	4	2013	4	2013
CVN 78 Ship Delivery	4	2015	4	2015
CVN 78 Initial Operational Capability (IOC)	2	2017	2	2017
CVN 79 Construction Contract Award	4	2013	4	2013
CVN 80 GFE LLTM Contract Award	1	2016	1	2016
CVN 80 Construction Contract Award	1	2018	1	2018
CVN 79 SCN Full Funding	1	2013	4	2018
CVN 80 SCN Full Funding	1	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 4007: *CVN 21 LFT&E*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
4007: *CVN 21 LFT&E*	50.820	1.607	2.675	3.645	-	3.645	3.792	5.092	4.330	4.391	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project encompasses Live Fire Test and Evaluation (LFT&E) efforts for the CVN 78 Class. Title 10, US Code, Section 2366, CVN 21 Operational Requirements Document (ORD) and the CVN 78 Class Test and Evaluation Master Plan (TEMP) 1610, prescribe requirements for LFT&E. The purpose of LFT&E is to evaluate covered systems in a realistic combat environment before proceeding beyond low-rate initial production. Since the application of the survivability testing required by 10 USC 2366 to a CVN 78 Class ship would be unreasonably expensive and impractical, the Secretary of Defense waived the live fire testing requirement in 2004 and submitted a certification of that determination to Congress. The CVN 78 Class LFT&E Management Plan details the testing, modeling and simulation, and engineering analyses that are being used to determine whether CVN 78 Class ships will be able to survive and carry out their missions against the threat weapons identified in the Surface Ship Capstone System Threat Assessment Report (CSTAR) that are likely to be encountered in combat. The results of these tests and analyses are documented in periodic Vulnerability Assessment Reports (VARs).

The CVN 78 Class VAR 3 was completed in the summer of 2007 and the CVN 78 Class VAR 4 is scheduled to be completed in FY 14.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: CVN 21 LFT&E	1.607	2.675	3.645
Articles:	0	0	0
FY 2012 Accomplishments: Continued the Ship Vulnerability Model (SVM) analyses and the Damage Scenario-Based Engineering Analyses (DSBEAs) for VAR 4. Began documenting these analyses for VAR 4. Completed the CVN 78 Magazine Fire Protection System (Detection and Suppression) Test Reports. Completed the CVN 78 LFT&E Management Plan, Revision B.			
FY 2013 Plans: Complete the DSBEAs and continue the SVM analyses and documentation for VAR 4. Work with Huntington Ingalls Industries, Newport News Shipbuilding (HII-NNS) to increase the fidelity of the CVN 78 structural Finite Element Model (FEM) in order to improve the accuracy of the Modeling and Simulation (M&S) results of the CVN 78's response to Underwater Explosive (UNDEX) events. Using these M&S results, begin the CVN 78 Analytical Bridge analyses.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 4007: *CVN 21 LFT&E*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Complete VAR 4 and route for signature. Continue the Analytical Bridge analyses of the CVN 78's response to UNDEX events, including Verification and Validation of the M&S results. Begin planning for the CVN 78 Total Ship Survivability Trial (TSST).			
Accomplishments/Planned Programs Subtotals	1.607	2.675	3.645

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTEN/0603512N: *Project Units 2208, 4004*	58.163	97.534	74.641		74.641	39.740	43.340	40.650	39.234	Continuing	Continuing
• RDTEN/0603570N: *Propulsion Plant Development (PU 2692)*	65.808	62.020	57.499		57.499	56.693	0.000	0.000	0.000	0.000	1,526.874
• SCN/2001: *Carrier Replacement Program*	554.798	608.195	944.866		944.866	1,834.072	1,918.441	2,539.826	2,954.419	Continuing	Continuing
• SCN/5300: *Completion of Prior Year Shipbuilding Programs*	0.000	0.000	588.100		588.100	729.000	0.000	0.000	0.000	0.000	1,317.100

Remarks

D. Acquisition Strategy

The CVN 78 is the first ship of the CVN 78 Class of aircraft carriers designed to replace USS ENTERPRISE and the ships of the NIMITZ Class. The CVN 78 will feature a new nuclear propulsion and electrical generation/distribution system, new electromagnetic aircraft launching system (EMALS), advanced arresting gear (AAG) system, all electric auxiliaries, warfare system improvements, survivability enhancements, improved weapons handling, and improved aircraft servicing. These design features will result in lower manpower and total ownership costs as compared to the NIMITZ Class. Additionally, the following war fighting benefits will be realized: increased sortie generation rate, improved ship self-defense capability, increased launch and recovery capability/flexibility, increased operational availability, and increased flexibility to support future upgrades.

E. Performance Metrics

Complete the update of the CVN 78 Class LFT&E Management Plan, Revision B and route for signature. Complete the refinement of the CVN 78 structural Finite Element Model (FEM), in support of the Analytical Bridge analyses. Successfully complete Vulnerability Assessment Report (VAR) 4.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604567N: *Ship Contract Design/ Live Fire T&E*	PROJECT 4007: *CVN 21 LFT&E*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Live Fire Test & Evaluation	WR	NSWC Carderock:MD	42.849	1.063	Oct 2011	2.263	Nov 2012	3.221	Nov 2013	-		3.221	Continuing	Continuing	Continuing
Live Fire Test & Evaluation	C/CPAF	HII:VA	7.961	0.544	Nov 2011	0.412	Dec 2012	0.424	Nov 2013	-		0.424	Continuing	Continuing	Continuing
		Subtotal	50.810	1.607		2.675		3.645		0.000		3.645			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Defense Acquisition Workforce	TBD	Various:Various	0.010	0.000		0.000		0.000		-		0.000	0.000	0.010	
		Subtotal	0.010	0.000		0.000		0.000		0.000		0.000	0.000	0.010	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	50.820	1.607		2.675		3.645		0.000		3.645			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604567N: *Ship Contract Design/ Live Fire T&E*	**PROJECT** 4007: *CVN 21 LFT&E*

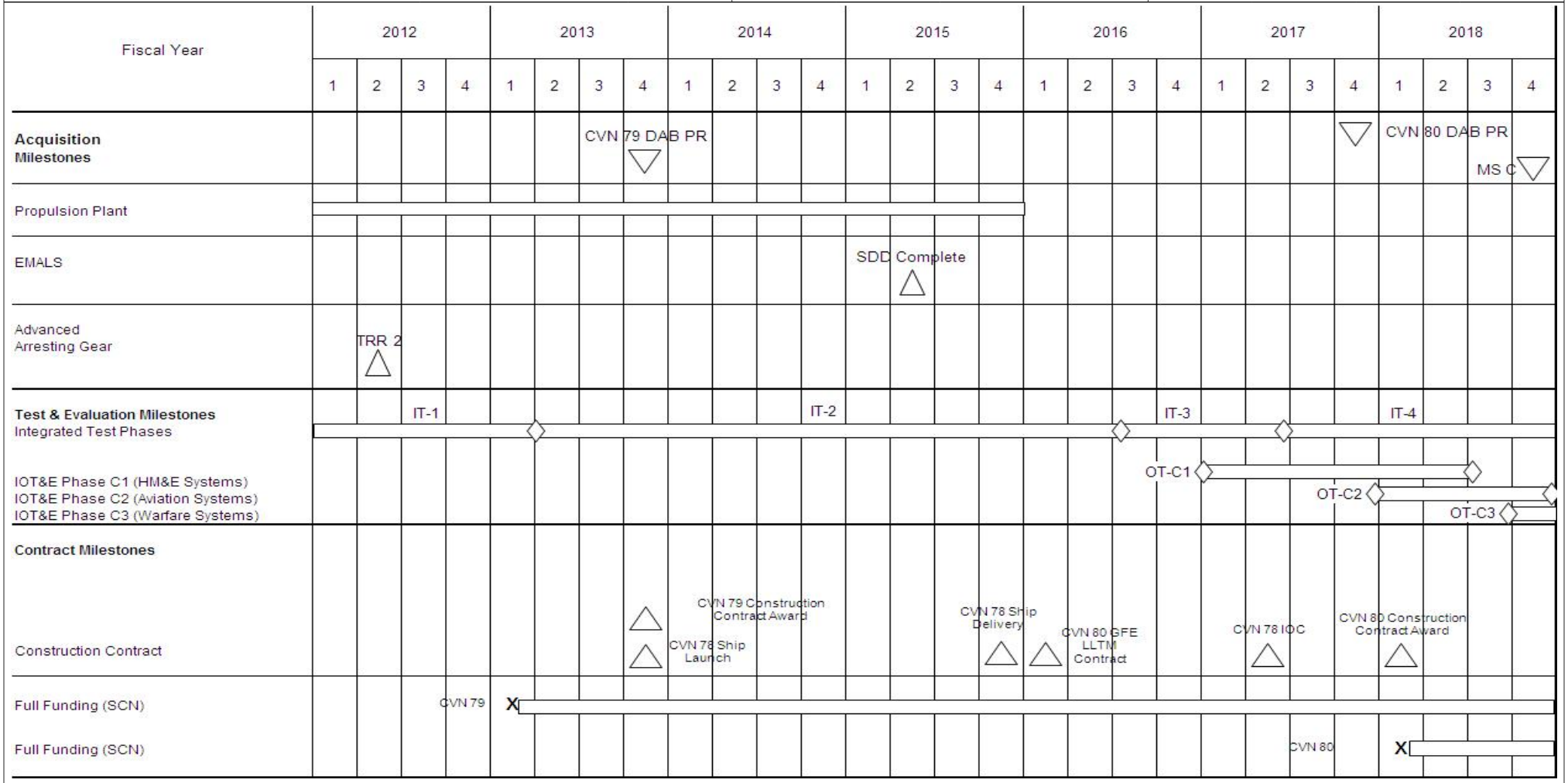


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604567N: *Ship Contract Design/ Live Fire T&E*	**PROJECT** 4007: *CVN 21 LFT&E*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 4007				
CVN 79 DAB PR	4	2013	4	2013
CVN 80 DAB PR	4	2017	4	2017
Milestone C	4	2018	4	2018
Propulsion Plant	1	2012	4	2015
EMALS SDD Complete	2	2015	2	2015
AAG TRR 2 (IT)	2	2012	2	2012
Integrated Tests 1 (IT-1)	1	2012	1	2013
Integrated Tests 2 (IT-2)	1	2013	3	2016
Integrated Tests 3 (IT-3)	3	2016	2	2017
Integrated Tests 4 (IT-4)	2	2017	4	2018
Initial Operational Test & Evaluation - Phase 1 (OT-C1)	1	2017	3	2018
Initial Operational Test & Evaluation - Phase 2 (OT-C2)	4	2017	4	2018
Initial Operational Test & Evaluation - Phase 3 (OT-C3)	3	2018	4	2018
CVN 78 Ship Launch	4	2013	4	2013
CVN 78 Ship Delivery	4	2015	4	2015
CVN 78 Initial Operational Capability (IOC)	2	2017	2	2017
CVN 79 Construction Contract Award	4	2013	4	2013
CVN 80 GFE LLTM Contract	1	2016	1	2016
CVN 80 Construction Contract Award	1	2018	1	2018
CVN 79 SCN Full Funding	1	2013	4	2018
CVN 80 SCN Full Funding	1	2018	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604574N: *Navy Tactical Computer Resources*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	11.191	3.003	3.889	3.689	-	3.689	4.477	4.548	4.632	4.711	Continuing	Continuing
1353: *Standard Hardware*	11.191	3.003	3.889	3.689	-	3.689	4.477	4.548	4.632	4.711	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Common Processing System (CPS) and Common Display System (CDS) programs are being executed to bring open architecture hardware and technology utilization into a common configuration in a competitive sourcing environment. CPS provides the computer processing and memory, data storage and extraction, and Input/Output (I/O) interface to support hosting Navy combat system software applications and management of computing resources in support of the AEGIS Modernization program, the CVN 78 program and other SSDS MK 2 ships. CDS provides common human machine interface (Combat Information Center (CIC) consoles) to the AEGIS Open Architecture (OA) computing environment and provides war fighter team situational awareness in support of the AEGIS Modernization program. CDS also provides the same capabilities to DDG 1000, SSDS MK 2 ships (CVN, LHD, LHA, LSD). CPS provides technical replacements of obsolete processing equipment (such as AN/UYQ-70 and Mission Critical Enclosure (MCE)) supporting multiple platforms including AEGIS new construction Destroyers and Cruisers/Destroyers undergoing modernization, the CVN 78 program and other SSDS MK 2 ships.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	3.848	3.889	3.958	-	3.958
Current President's Budget	3.003	3.889	3.689	-	3.689
Total Adjustments	-0.845	0.000	-0.269	-	-0.269
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.750	0.000			
• SBIR/STTR Transfer	-0.095	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.269	-	-0.269

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604574N: *Navy Tactical Computer Resources*	PROJECT 1353: *Standard Hardware*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1353: *Standard Hardware*	11.191	3.003	3.889	3.689	-	3.689	4.477	4.548	4.632	4.711	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Common Processing System (CPS) and Common Display System (CDS) programs are being executed to bring open architecture hardware and technology utilization into a common configuration in a competitive sourcing environment. CPS provides the computer processing and memory, data storage and extraction, and I/O interface to support hosting Navy combat system software applications and management of computing resources in support of the AEGIS Modernization program, the CVN 78 program and other SSDS MK 2 ships. CDS provides common human machine interface (Combat Information Center (CIC)) consoles to the AEGIS Open Architecture (OA) computing environment and provides war fighter team situational awareness in support of the AEGIS Modernization program. CDS also provides the same capabilities to DDG 1000, SSDS MK 2 ships (CVN, LHD, LHA, LSD). CPS provides technical replacements of obsolete processing equipment (such as AN/UYQ-70 and Mission Critical Enclosure (MCE)) supporting multiple platforms including AEGIS new construction Destroyers and Cruisers/Destroyers undergoing modernization, the CVN 78 program and other SSDS MK 2 ships.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Systems Engineering	3.003	3.889	3.689
Articles:	0	0	0
FY 2012 Accomplishments: - Continued fielding and in-service support of CDS Baseline 1 in multiple platforms including AEGIS Destroyers and Cruisers undergoing modernization, DDG restart, AEGIS Ashore, CVN CV-TSC, DDG 1000, CVN/Amphib SSDS and other ships. Performed design and qualification of technology insertion of CDS Baseline 2 equipment including recompete of CDS contract. - Continued fielding and in-service support CPS baseline 1 equipment in multiple platforms including AEGIS Destroyers and Cruisers undergoing modernization, DDG restart, AEGIS Ashore, CVN CV-TSC, and CVN/Amphib SSDS installation and other ships. Continued development of technology insertion of CPS Baseline 2 equipment.			
FY 2013 Plans: - Continue in-service support of CDS Baseline 1 in multiple platforms including AEGIS Destroyers and Cruisers undergoing modernization, DDG restart, AEGIS Ashore, CVN CV-TSC, DDG 1000, CVN/Amphib SSDS and other ships. Begin technology insertion through production of CDS Baseline 2 equipment under new contract.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604574N: *Navy Tactical Computer Resources*	PROJECT 1353: *Standard Hardware*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Continue fielding of CPS Baseline 1 to support multiple platforms including AEGIS Destroyers and Cruisers undergoing modernization, DDG restart, AEGIS Ashore, CVN CV-TSC, and CVN/Amphib SSDS installation and other ships. Complete development and qualification and begin production of technology insertion for CPS Baseline 2 equipment. ***FY 2014 Plans:*** - Continue in-service support of CDS Baseline 1 in multiple platforms including AEGIS Destroyers and Cruisers undergoing modernization, DDG restart, AEGIS Ashore, CVN CV-TSC, DDG 1000, CVN/Amphib SSDS and other ships. Begin technology insertion through production of CDS Baseline 2 equipment under new contract. - Continue fielding of CPS Baseline 1 to support multiple platforms including AEGIS Destroyers and Cruisers undergoing modernization, DDG restart, AEGIS Ashore, CVN CV-TSC, and CVN/Amphib SSDS installation and other ships. Complete development and qualification and begin production of technology insertion for CPS Baseline 2 equipment.			
Accomplishments/Planned Programs Subtotals	3.003	3.889	3.689

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Contracts:
CDS Indefinite Delivery Indefinite Quantity (IDIQ) Production continues FY12-FY16.
CPS IDIQ Production continues FY12-FY16.

E. Performance Metrics

CDS Performance Metrics

FY12 Funding:
- Conducted quarterly CDS Tech Refresh/Technical Insertion WG meetings with prime contractors and users to identify technology refresh priorities, user requirements, future technology trends, and obsolescence problems.
- Conducted CDS Technical Interchangeable Meetings on an as-needed basis to explore and resolve emergent technical design issues.
- Successfully completed CDS TREQ testing, as required.
- Successfully completed required Tech Refresh research for CDS contract recompete November 2012.

FY13 Funding:
- Successfully complete CDS Baseline 2 Preliminary Design Review (PDR).

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604574N: *Navy Tactical Computer Resources*	PROJECT 1353: *Standard Hardware*

- Successfully complete CDS Baseline 2 Critical Design Review (CDR).
- Successfully complete CDS Baseline 2 Test Readiness Review (TRR).
- Conduct TIMs on an as-needed basis to explore and resolve emergent technical design issues.
- Successfully complete CDS Baseline 2 Production Readiness Review (PRR).
- Successfully complete CDS TR/TI SRR, as required.
- Conduct quarterly CDS TR/TI WG Mtgs with prime contractors and users to identify technology refresh priorities, user requirements, future technology trends and obsolescence problems.

CPS Performance Metrics

FY12 Funding:
- Successfully complete CPS TR/TI PDR, as required.
- Conduct Quarterly CPS TR/TI WG meetings with prime contractors and customers to identify technology refresh priorities, customer requirements, future technology trends, and obsolescence problems.
-Conduct CPS TIMs to explore and resolve emergent technical design issues.

FY13 Funding:
- Conduct quarterly CPS TR/TI WG Mtgs with prime contractors and users to identify technology refresh priorities, user requirements, future technology trends and obsolescence problems.
- Technical Insertion and Milestones as required.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604574N: *Navy Tactical Computer Resources*	PROJECT 1353: *Standard Hardware*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NSWC:PHD	0.180	0.000		0.039	Nov 2012	0.000		-		0.000	0.000	0.219	
Systems Engineering	WR	NSWC:Dahlgren	4.177	0.828	Jan 2012	0.847	Nov 2012	3.502	Oct 2013	-		3.502	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC:Crane	0.799	0.000		0.000		0.000		-		0.000	0.000	0.799	
Systems Engineering	C/CPFF	General Dynamics:Fairfax, VA	2.750	2.000	Jan 2012	1.585	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering	C/CPFF	DRS Technologies:Gaithersburg, MD	0.478	0.000		0.000		0.000		-		0.000	0.000	0.478	
Systems Engineering	C/CPIF	Global Technical Systems:Virginia Beach, VA	2.401	0.000		1.234	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Enginering	Various	Various:Various	0.097	0.000		0.000		0.000		-		0.000	0.000	0.097	
		Subtotal	10.882	2.828		3.705		3.502		0.000		3.502			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Services	Various	Various:Various	0.309	0.175	Feb 2012	0.184	Dec 2012	0.187	Oct 2013	-		0.187	0.100	0.955	
		Subtotal	0.309	0.175		0.184		0.187		0.000		0.187	0.100	0.955	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	11.191	3.003		3.889		3.689		0.000		3.689			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604574N: *Navy Tactical Computer Resources*	PROJECT 1353: *Standard Hardware*

Exhibit R-4, RDT&E Schedule Profile: 2013 Navy		DATE: August 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 05: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604574N: *Navy Tactical Computer Resources*	PROJECT 1353: *Standard Hardware*

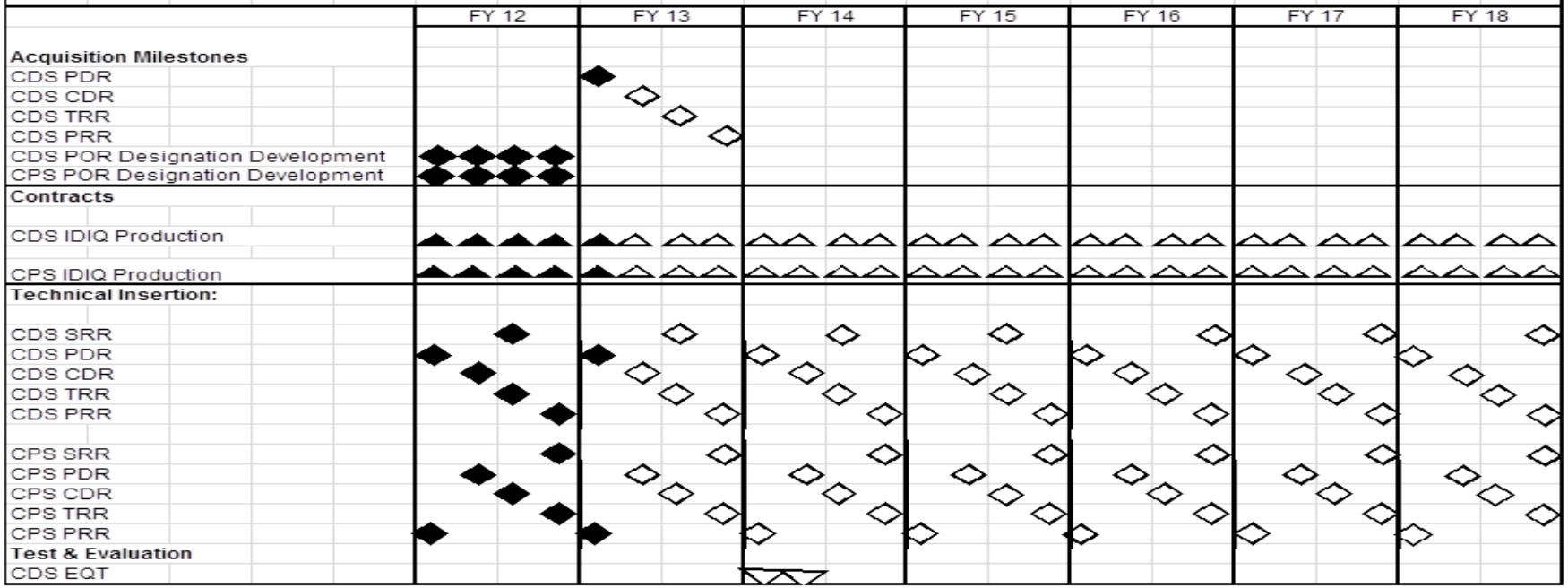


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604574N: *Navy Tactical Computer Resources*	**PROJECT** 1353: *Standard Hardware*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1353				
Acquisition Milestones CDS PDR	1	2013	1	2013
Acquisition Milestones CDS CDR	2	2013	2	2013
Acquisition Milestones CDS TRR	3	2013	3	2013
Acquisition Milestones CDS PRR	4	2013	4	2013
Develop required documentation to support CDS POR designation	1	2012	4	2012
Develop required documentation to support CPS POR designation	1	2012	4	2012
CDS Indefinite Delivery/Indefinite Quantity (IDIQ) Production	1	2012	4	2018
CPS IDIQ Production	1	2012	4	2018
FY12 Technical Insertion CDS SRR, as required	3	2012	3	2012
FY13 Technical Insertion CDS SRR, as required	3	2013	3	2013
FY14 Technical Insertion CDS SRR, as required	3	2014	3	2014
FY15 Technical Insertion CDS SRR, as required	3	2015	3	2015
FY16 Technical Insertion CDS SRR, as required	4	2016	4	2016
FY17 Technical Insertion CDS SRR, as required	4	2017	4	2017
FY18 Technical Insertion CDS SRR, as required	4	2018	4	2018
FY12 Technical Insertion CDS PDR, as required	1	2012	1	2012
FY13 Technical Insertion CDS PDR, as required	1	2013	1	2013
FY14 Technical Insertion CDS PDR, as required	1	2014	1	2014
FY15 Technical Insertion CDS PDR, as required	1	2015	1	2015
FY16 Technical Insertion CDS PDR, as required	1	2016	1	2016
FY17 Technical Insertion CDS PDR, as required	1	2017	1	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604574N: *Navy Tactical Computer Resources*	PROJECT 1353: *Standard Hardware*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FY18 Technical Insertion CDS PDR, as required	1	2018	1	2018
FY12 Technical Insertion CDS CDR, as required	2	2012	2	2012
FY13 Technical Insertion CDS CDR, as required	2	2013	2	2013
FY14 Technical Insertion CDS CDR, as required	2	2014	2	2014
FY15 Technical Insertion CDS CDR, as required	2	2015	2	2015
FY16 Technical Insertion CDS CDR, as required	2	2016	2	2016
FY17 Technical Insertion CDS CDR, as required	2	2017	2	2017
FY18 Technical Insertion CDS CDR, as required	2	2018	2	2018
FY12 Technical Insertion CDS TRR, as required	3	2012	3	2012
FY13 Technical Insertion CDS TRR, as required	3	2013	3	2013
FY14 Technical Insertion CDS TRR, as required	3	2014	3	2014
FY15 Technical Insertion CDS TRR, as required	3	2015	3	2015
FY16 Technical Insertion CDS TRR, as required	3	2016	3	2016
FY17 Technical Insertion CDS TRR, as required	3	2017	3	2017
FY18 Technical Insertion CDS TRR, as required	3	2018	3	2018
FY12 Technical Insertion CDS PRR, as required	4	2012	4	2012
FY13 Technical Insertion CDS PRR, as required	4	2013	4	2013
FY14 Technical Insertion CDS PRR, as required	4	2014	4	2014
FY15 Technical Insertion CDS PRR, as required	4	2015	4	2015
FY16 Technical Insertion CDS PRR, as required	4	2016	4	2016
FY17 Technical Insertion CDS PRR, as required	4	2017	4	2017
FY18 Technical Insertion CDS PRR, as required	4	2018	4	2018
FY12 Technical Insertion CPS SRR, as required	4	2012	4	2012
FY13 Technical Insertion CPS SRR, as required	4	2013	4	2013
FY14 Technical Insertion CPS SRR, as required	4	2014	4	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604574N: *Navy Tactical Computer Resources*	PROJECT 1353: *Standard Hardware*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FY15 Technical Insertion CPS SRR, as required	4	2015	4	2015
FY16 Technical Insertion CPS SRR, as required	4	2016	4	2016
FY17 Technical Insertion CPS SRR, as required	4	2017	4	2017
FY18 Technical Insertion CPS SRR, as required	4	2018	4	2018
FY12 Technical Insertion CPS PDR, as required	2	2012	2	2012
FY13 Technical Insertion CPS PDR, as required	2	2013	2	2013
FY14 Technical Insertion CPS PDR, as required	2	2014	2	2014
FY15 Technical Insertion CPS PDR, as required	2	2015	2	2015
FY16 Technical Insertion CPS PDR, as required	2	2016	2	2016
FY17 Technical Insertion CPS PDR, as required	2	2017	2	2017
FY18 Technical Insertion CPS PDR, as required	2	2018	2	2018
FY12 Technical Insertion CPS CDR, as required	3	2012	3	2012
FY13 Technical Insertion CPS CDR, as required	3	2013	3	2013
FY14 Technical Insertion CPS CDR, as required	3	2014	3	2014
FY15 Technical Insertion CPS CDR, as required	3	2015	3	2015
FY16 Technical Insertion CPS CDR, as required	3	2016	3	2016
FY17 Technical Insertion CPS CDR, as required	3	2017	3	2017
FY18 Technical Insertion CPS CDR, as required	3	2018	3	2018
FY12 Technical Insertion CPS TRR, as required	4	2012	4	2012
FY13 Technical Insertion CPS TRR, as required	4	2013	4	2013
FY14 Technical Insertion CPS TRR, as required	4	2014	4	2014
FY15 Technical Insertion CPS TRR, as required	4	2015	4	2015
FY16 Technical Insertion CPS TRR, as required	4	2016	4	2016
FY17 Technical Insertion CPS TRR, as required	4	2017	4	2017
FY18 Technical Insertion CPS TRR, as required	4	2018	4	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604574N: *Navy Tactical Computer Resources*	**PROJECT** 1353: *Standard Hardware*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FY12 Technical Insertion CPS PRR, as required	1	2012	1	2012
FY13 Technical Insertion CPS PRR, as required	1	2013	1	2013
FY14 Technical Insertion CPS PRR, as required	1	2014	1	2014
FY15 Technical Insertion CPS PRR, as required	1	2015	1	2015
FY16 Technical Insertion CPS PRR, as required	1	2016	1	2016
FY17 Technical Insertion CPS PRR, as required	1	2017	1	2017
FY18 Technical Insertion CPS PRR, as required	1	2018	1	2018
CDS Environmental Qualification Testing (EQT)	1	2014	2	2014

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604601N: *Mine Development*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	195.595	3.874	8.335	5.041	-	5.041	4.127	3.670	3.741	3.803	Continuing	Continuing
0267: *Mine Improvements*	195.595	3.874	8.335	5.041	-	5.041	4.127	3.670	3.741	3.803	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project is the only R&D program for mine systems, and is the sole support for the capability to maintain the effectiveness of mines facing new threat targets and increasing emphasis on major regional conflicts and littoral warfare in shallow water. Project tasks are grouped into several areas: (1) Threat Modeling/Analysis, which collects, analyzes, and develops digital models of data on current priority threat target characteristics to support computer simulations; (2) Target Detection and Response, which uses target models to develop optimal mine designs, settings, and firing algorithms; and (3) Developing and upgrading Tactical Decision Aids (TDAs) to assist the warfighter in planning and placing more effective minefields.

Data Recorders: Mine data recorders record mine target detection and mine fire data during in-water reliability testing. Current recorders are no longer supportable and cannot be used with the Quickstrike Mod 3. New recorders will work with the programmable Target Detecting Device MK 71 used in the Mod 3. They will support in-water testing of all in-service Quickstrike Mods (0, 1, and 3).

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	3.933	8.335	5.071	-	5.071
Current President's Budget	3.874	8.335	5.041	-	5.041
Total Adjustments	-0.059	0.000	-0.030	-	-0.030
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.059	0.000			
• Program Adjustments	0.000	0.000	-0.003	-	-0.003
• Rate/Misc Adjustments	0.000	0.000	-0.027	-	-0.027

Change Summary Explanation

Total Adjustments: FY14 -$0.030 for Program/Misc. Adjustments.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604601N: *Mine Development*	PROJECT 0267: *Mine Improvements*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0267: *Mine Improvements*	195.595	3.874	8.335	5.041	-	5.041	4.127	3.670	3.741	3.803	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project is the only R&D program for mine systems, and is the sole support for the capability to maintain the effectiveness of mines facing new threat targets and increasing emphasis on major regional conflicts and littoral warfare in shallow water. Project tasks are grouped into several areas: (1) Threat Modeling/Analysis, which collects, analyzes, and develops digital models of data on current priority threat target characteristics to support computer simulations; (2) Target Detection and Response, which uses target models to develop optimal mine designs, settings, and firing algorithms; and (3) Developing and upgrading Tactical Decision Aids (TDAs) to assist the warfighter in planning and placing more effective minefields.

Data Recorders: Mine data recorders record mine target detection and mine fire data during in-water reliability testing. Current recorders are no longer supportable and cannot be used with the Quickstrike Mod 3. New recorders will work with the programmable Target Detecting Device MK 71 used in the Mod 3. They will support in-water testing of all in-service Quickstrike Mods (0, 1, and 3).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Product Development	2.240	4.144	2.667
Articles:	0	0	0

FY 2012 Accomplishments:

Software Development: Modified algorithms based on testing results. Began generating operational data (OPDATA) for the Fast Patrol Boat, Air Cushioned Vehicle, and large ship algorithms. Continued to work action items assigned by Navy and Air Force fuse safety boards. Continued modifications to mine data recorder design. Worked with P-8 Aircraft mission planning software designers to include transfer of MEDAL data to their system.

FY 2013 Plans:

Software Development: Modify algorithms based on testing results. Continue generating OPDATA for fast patrol boat, air cushioned vehicle, and large ship algorithms. Continue to work action items assigned by Navy and Air Force fuse safety boards. Complete modification to mine data recorder design. Continue to work with P-8 Aircraft mission planning software designers to include transfer of MEDAL data to their system. Perform trade study for mine standoff delivery (Wing Kit Development) capability and develop modification to existing system.

FY 2014 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604601N: *Mine Development*	PROJECT 0267: *Mine Improvements*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Modify algorithms based on testing results. Continue generating OPDATA for the Fast Patrol Boat, Air cushioned Vehicle, and large ship algorythms.			
Title: Support	0.050	0.100	0.050
Articles:	0	0	0
FY 2012 Accomplishments: Integrated Logistics Support			
FY 2013 Plans: Integrated Logistics Support			
FY 2014 Plans: Integrated Logistics Support			
Title: Management:	0.256	0.500	0.304
Articles:	0	0	0
FY 2012 Accomplishments: Program Management Support and Travel			
FY 2013 Plans: Program Management Support and Travel			
FY 2014 Plans: Program Management Support and Travel			
Title: Test and Evaluation	1.328	3.591	2.020
Articles:	0	0	0
FY 2012 Accomplishments: Conducted second in-water test of developed algorithms and begin analysis. Continued Aircraft certification.			
FY 2013 Plans: Conduct one in-water test to determine baseline reliability of the Quickstrike MK 65 Mod 3 system. Continue Aircraft certification (to include F/A-18 and B-52). Perform test and evaluation on the MINES standoff (Wing Kit) capabiltiy.			
FY 2014 Plans: Continue Aircraft certification (to include F/A-18 and B-52).			
Accomplishments/Planned Programs Subtotals	3.874	8.335	5.041

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604601N: *Mine Development*	PROJECT 0267: *Mine Improvements*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• WPN 3231: *Quickstrike Mine*	5.770	6.852	7.800		7.800	10.477	10.244	9.704	9.870	0.000	72.191

Remarks

D. Acquisition Strategy

Procurement of Target Detecting Device (TDD) Mk 71 and associated components.

E. Performance Metrics

Successfully develop new mine data recorders to work with the programmable TDD MK 71 used in the Mod 3.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604601N: *Mine Development*	PROJECT 0267: *Mine Improvements*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	NSWC PC:WX	112.801	0.653	Nov 2011	2.844	Nov 2012	1.500	Nov 2013	-		1.500	Continuing	Continuing	Continuing
Ancillary Hardware Development	C/CPAF	Various:Various	2.658	0.500	Nov 2011	0.200	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Ship Suitability	WR	NSWC PC:WX	2.467	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
GFE	C/CPAF	Various:Various	4.790	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Software Development	C/CPAF	Various:WX	15.449	1.106	Nov 2011	1.100	Nov 2012	1.167	Nov 2013	-		1.167	0.000	18.822	
Future Mines	C/CPAF	Various:Various	0.000	0.000	Nov 2011	0.000		0.000		-		0.000	0.000	0.000	
		Subtotal	138.165	2.259		4.144		2.667		0.000		2.667			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	NSWC PC:WX	0.572	0.050	Nov 2011	0.100	Nov 2012	0.050	Nov 2013	-		0.050	Continuing	Continuing	Continuing
		Subtotal	0.572	0.050		0.100		0.050		0.000		0.050			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	WR	NSWC PC:WX	20.231	1.328	Nov 2011	3.591	Nov 2012	2.020	Nov 2013	-		2.020	0.000	27.170	
		Subtotal	20.231	1.328		3.591		2.020		0.000		2.020	0.000	27.170	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604601N: *Mine Development*	PROJECT 0267: *Mine Improvements*	

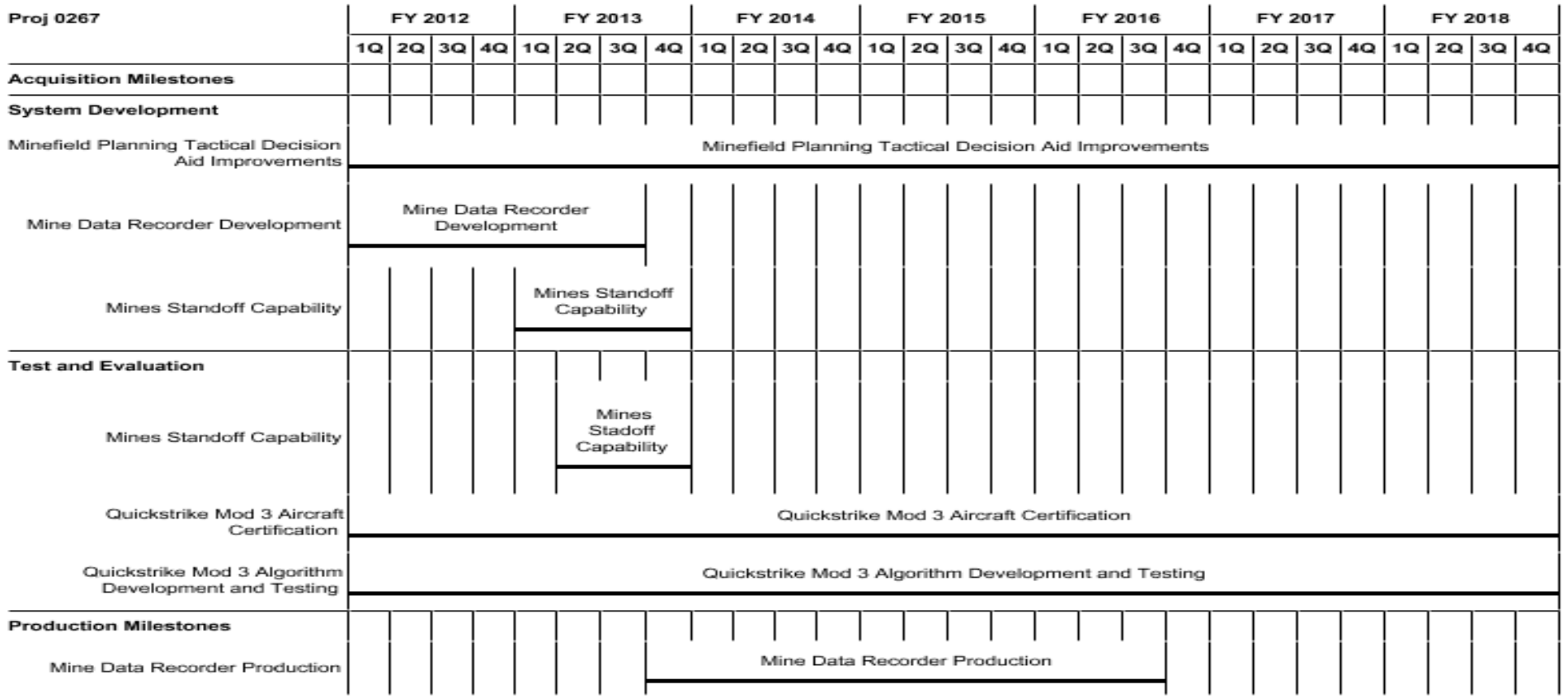
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	C/CPAF	Various:Various	35.831	0.221	Nov 2011	0.500	Nov 2012	0.304	Nov 2013	-		0.304	0.000	36.856	
Program Management Support	C/CPAF	Various:Various	0.728	0.000	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Travel	Various	NAVSEA:PD	0.058	0.016	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
DAWDF	Various	Various:Various	0.010	0.000	Nov 2011	0.000		0.000		-		0.000	0.000	0.010	
		Subtotal	36.627	0.237		0.500		0.304		0.000		0.304			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	195.595	3.874		8.335		5.041		0.000		5.041			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604601N: *Mine Development*	PROJECT 0267: *Mine Improvements*



2014DON - 0604601N - 0267

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604601N: *Mine Development*	PROJECT 0267: *Mine Improvements*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0267				
System Development: Minefield Planning Tactical Decision Aid Improvements:	1	2012	4	2018
System Development: Mine Data Recorder Development:	1	2012	3	2013
System Development: Mines Standoff Capability:	1	2013	4	2013
Test and Evaluation: Mines Standoff Capability:	2	2013	4	2013
Test and Evaluation: Quickstrike Mod 3 Aircraft Certification:	1	2012	4	2018
Test and Evaluation: Quickstrike Mod 3 Algorithm Development and Testing:	1	2012	4	2018
Production Milestones: Mine Data Recorder Production:	4	2013	3	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	179.068	25.457	49.818	26.444	-	26.444	29.999	22.765	20.323	20.570	Continuing	Continuing
2234: *Lightweight Hybrid Torpedo*	179.068	25.457	49.818	26.444	-	26.444	29.999	22.765	20.323	20.570	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Lightweight Torpedo Program designs, integrates and tests the Lightweight Torpedo (LWT, MK54). The LWT provides performance improvements in shallow water, counter-measure environments. The Engineering Development Model (EDM) contract was awarded to Raytheon Systems Company in June 1996. The EDM contract has delivered twenty-one EDM units to support the in-water test program. Initial Operating Capability (IOC) of the MK 54 Mod 0 was achieved in 2004. IOC of the MK 54 equipped VLA was achieved in 2010.

Budget supports Pre-Planned Product Improvement (P3I) Program using an incremental developmental acquisition approach combining hardware and Advanced Processor Build (APB) software upgrades to enable rapid fielding of improvements to the Fleet. The P3I program will focus on common LWT and Heavyweight Torpedo (HWT) hardware and software architecture enhancements that will provide re-architecture, broadband array improvements, Block Upgrade (BUG), and APB software improvements. Future APB software builds will utilize the common torpedo software to deliver software and tactics to both the MK 48 Advanced Capability (ADCAP) and MK 54 Lightweight torpedoes. The P3I program will also support development of enhanced weapon delivery methods, including the high altitude launch of the MK 54 from Maritime Patrol Aircraft (MPA) with the High Altitude Anti-Submarine Warfare Weapon Capability (HAAWC).

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	32.592	49.818	38.249	-	38.249
Current President's Budget	25.457	49.818	26.444	-	26.444
Total Adjustments	-7.135	0.000	-11.805	-	-11.805
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-6.364	0.000			
• SBIR/STTR Transfer	-0.771	0.000			
• Program Adjustments	0.000	0.000	-4.021	-	-4.021
• Rate/Misc Adjustments	0.000	0.000	-7.784	-	-7.784

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*

Change Summary Explanation

Technical: Rephasing of Technology Insertion (TI-1) funds for APB-5 design, development, test, and evaluation from FY14 to FY15 and FY16 (-$4.021). Rephasing of HAAWC funds for contractor design, development, and qualification of high altitude capability from FY 14 to FY 15 (-$7.407), in addition to other miscellaneous adjustments (-$0.377).

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*	PROJECT 2234: *Lightweight Hybrid Torpedo*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2234: *Lightweight Hybrid Torpedo*	179.068	25.457	49.818	26.444	-	26.444	29.999	22.765	20.323	20.570	Continuing	Continuing
Quantity of RDT&E Articles	0	20	21	14		14	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The program designs, integrates and tests the LWT, MK54. The LWT provides performance improvements in shallow water, counter-measure environments. The EDM contract was awarded to Raytheon Systems Company in June 1996. IOC of the MK54 Mod 0 achieved in 2004. IOC of MK 54 equipped VLA MK 54 MOD 1 achieved in 2010.

FY 2012 delivery includes 18 TI-1 POM
FY 2012 achievement of BUG/TURF Software IOC
FY 2012 achievement of Anti-Torpedo Demo
FY 2013 delivery includes 20 HAAWC POD units
FY 2013 achievement of BUG IOC
FY 2014 HAAWC Contract delivery of 14 POM Units

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: MK54 Pre-Planned Product Improvement	25.457	49.818	26.444
Articles:	20	21	14
Description: MK54 Pre-Planned Product Improvement (P3I) includes the MK54 VLA Integration and HAAWC programs.			
FY 2012 Accomplishments: Developed hardware/software improvements for P3I program. Developed MK 54 high altitude launch capability from MPA. A modification to the MK54 P3I program was directed by CNO to address a Fleet Urgent Operational Need (UON), which enabled the early fielding of specific BUG capabilities. The development of these changes was being accomplished under the software program and are referred to as the Torpedo UON Rapid Fielding (TURF) effort. TURF development and testing, was accomplished through a Quick Reaction Assessment (QRA), resuting in TURF fleet release in Jan 2012. A modification to the MK54 P3I program was directed to accomplish a technical feasibility demonstration of the MK54 as an Anti-Torpedo Torpedo (ATT). These efforts were initiated in FY11 and scheduled to conclude in 1Q FY13.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*	PROJECT 2234: *Lightweight Hybrid Torpedo*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Conducted BUG Operational Testing. ***FY 2013 Plans:*** Continue development of hardware/software improvements for P3I program. Continue development of MK54 high altitude launch capability from MPA. Complete Block Upgrade testing, and field BUG. Achievement of Production Readiness Review (PRR) of hardware improvements (112 element array) on MK54 MOD 1. ***FY 2014 Plans:*** Continue development of hardware/software improvements for P3I program. Continue development of MK54 high altitude launch capability from MPA. Conduct MK54 MOD 1 Development Testing.			
Accomplishments/Planned Programs Subtotals	25.457	49.818	26.444

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• WPN/3215,WPN/3215,WPN/3215: *MK54 Torpedo Mods,MK54 Torpedo Mods,MK54 Torpedo Mods*	76.605	74.487	125.898		125.898	150.569	198.236	201.883	205.259	Continuing	Continuing

Remarks

D. Acquisition Strategy

The EDM contract held by Raytheon Systems Company supports an incremental upgrade strategy to counter evolving threats. The award of EDM contracts among qualified producers includes both hardware and software upgrades. The contract was awarded as a Cost-Plus-Award Fee in June 1996, and was converted to Cost-Plus-Incentive Fee in December 1998. Sole Source Production Contract awarded in FY 2004 for MK48 ADCAPS MODS/CBASS and MK54 Lightweight Torpedoes. The MK54 Lightweight Torpedo Kit Fixed-Price-Incentive (Firm Target) procurement contract was awarded in September 2011 to Raytheon Systems Company. The TI-1 Cost-Plus-Fixed-Fee contract was awarded to Progeny in September 2008.

E. Performance Metrics

Milestone Reviews.
System Engineering Technical Review.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*	PROJECT 2234: *Lightweight Hybrid Torpedo*

Earned Value Management Reviews.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*	PROJECT 2234: *Lightweight Hybrid Torpedo*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Development	WR	NUWC:Newport/ Keyport	37.948	2.761	Oct 2011	2.534	Oct 2012	2.219	Oct 2013	-		2.219	Continuing	Continuing	Continuing
Hardware Development	C/CPAF	Raytheon:Not Specified	3.530	0.000		0.000		0.000		-		0.000	0.000	3.530	
Hardware Development	WR	NSWC:Indian Head, MD	0.882	1.573	Oct 2011	0.600	Oct 2012	0.990	Oct 2013	-		0.990	Continuing	Continuing	Continuing
Systems Engineering	WR	NUWC:Newport/ Keyport	18.489	0.156	Dec 2011	0.317	Oct 2012	0.375	Oct 2013	-		0.375	Continuing	Continuing	Continuing
Systems Engineering	SS/FP	Lockheed Martin - VLA:Akron, OH	2.501	0.000		0.000		0.000		-		0.000	0.000	2.501	
Systems Engineering	WR	PEO-IWS 3,:Dahlgren, VA	2.882	0.000		0.000		0.000		-		0.000	0.000	2.882	
Systems Engineering	WR	PEO-IWS 5,:Dahlgren, VA	2.223	0.000		0.000		0.000		-		0.000	0.000	2.223	
Systems Engineering	WR	NSWC PMA 290:Paxtuxent, MD	5.167	0.440	Oct 2011	1.250	Oct 2012	1.250	Oct 2013	-		1.250	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWCWD:China Lake	1.173	0.962	Dec 2011	1.250	Oct 2012	1.400	Oct 2013	-		1.400	0.000	4.785	
Systems Engineering	SS/FP	SPA Inc.:Not Specified	0.640	0.000		0.000		0.000		-		0.000	0.000	0.640	
Hardware Development	SS/FP	Progeny Systems:Not Specified	24.394	0.000		0.000		0.000		-		0.000	0.000	24.394	
Hardware Development	C/CPAF	TBD for HAAWC:Not Specified	22.278	9.164	Mar 2013	27.591	Mar 2013	10.197	Apr 2014	-		10.197	Continuing	Continuing	Continuing
System Test & Evaluation	WR	NUWC:Newport/ Keyport	18.313	1.080	Oct 2011	0.384	Oct 2012	0.770	Oct 2013	-		0.770	Continuing	Continuing	Continuing
Systems Engineering	WR	Naval Operational Logistics Support Center (NOLSC):Not Specified	0.025	0.000		0.000		0.000		-		0.000	0.000	0.025	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*	PROJECT 2234: *Lightweight Hybrid Torpedo*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Enginnering	C/CPFF	John Hopkins University:Baltimore, MD	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	
Software Development	C/CPFF	MIT:Boston, MA	0.000	0.300	Oct 2011	0.309	Oct 2012	0.045	Oct 2013	-		0.045	0.000	0.654	
		Subtotal	140.495	16.436		34.235		17.246		0.000		17.246			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Test and Evaluation	WR	NUWC:Newport/ Keyport	20.847	0.992	Oct 2011	2.416	Oct 2012	2.405	Oct 2013	-		2.405	Continuing	Continuing	Continuing
Systems Engineering	WR	NUWC:Newport/ Keyport	0.000	0.120	Oct 2011	0.120	Oct 2012	0.000		-		0.000	0.000	0.240	
Program Management Support	WR	NUWC:Newport/ Keyport	0.000	1.875	Oct 2011	1.957	Oct 2012	1.466	Oct 2013	-		1.466	0.000	5.298	
Hardware Development	WR	NUWC:Newport/ Keyport	0.000	0.750	Oct 2011	1.200	Oct 2012	1.100	Oct 2013	-		1.100	0.000	3.050	
Program Management Support	Various	NAVSEA:Not Specified	0.000	0.044	Nov 2011	0.038	Oct 2012	0.015	Oct 2013	-		0.015	0.000	0.097	
Program Management Support	C/BA	ARL/ PSU:Philadephia, PA	0.000	0.441	Dec 2011	0.000		0.000		-		0.000	0.000	0.441	
		Subtotal	20.847	4.222		5.731		4.986		0.000		4.986			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NSWC:Carderock	0.090	0.000		0.000		0.000		-		0.000	0.000	0.090	
System Test and Evaluation	WR	OPTEVFOR:Not Specified	1.272	0.813	Oct 2011	1.555	Oct 2012	0.500	Oct 2013	-		0.500	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*	PROJECT 2234: *Lightweight Hybrid Torpedo*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Test and Evaluation	WR	NUWC:Newport/ Keyport	13.832	3.272	Oct 2011	7.644	Oct 2012	3.053	Oct 2013	-		3.053	Continuing	Continuing	Continuing
System Test and Evaluation	C/CPIF	ARL/ PSU:Philadephia, PA	0.000	0.068	Mar 2012	0.000	Oct 2012	0.000		-		0.000	0.000	0.068	
		Subtotal	15.194	4.153		9.199		3.553		0.000		3.553			

Management Services ($ in Millions)

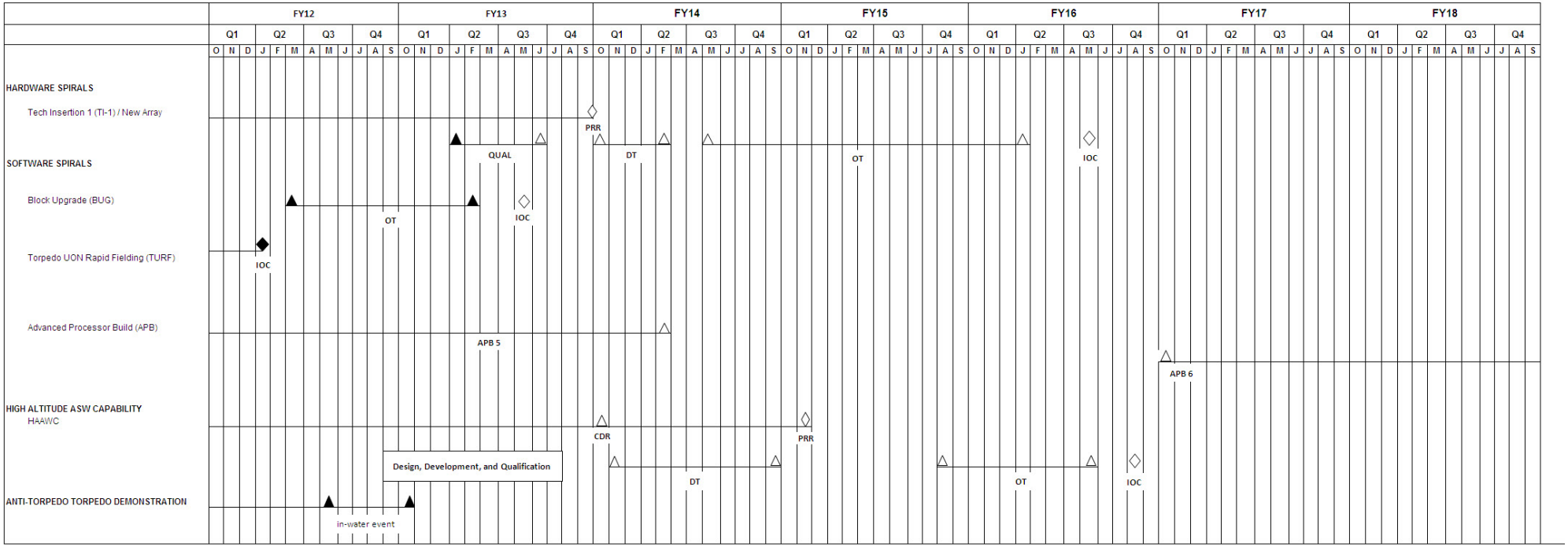
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Alion Science:Not Specified	1.905	0.435	Dec 2011	0.462	Oct 2012	0.462	Oct 2013	-		0.462	Continuing	Continuing	Continuing
Travel	WR	NAVSEA:Not Specified	0.308	0.050	Nov 2011	0.025	Oct 2012	0.026	Oct 2013	-		0.026	Continuing	Continuing	Continuing
Acquisition Workforce Fund	Various	Various:Various	0.226	0.000		0.000		0.000		-		0.000	0.000	0.226	
Program Management Support	C/CPFF	ARL/ PSU:Philadephia, PA	0.000	0.161	Oct 2011	0.166	Oct 2012	0.171	Oct 2013	-		0.171	0.000	0.498	
Program Management Support	Various	NAVSEA:Not Specified	0.093	0.000	Nov 2011	0.000		0.000		-		0.000	0.000	0.093	
		Subtotal	2.532	0.646		0.653		0.659		0.000		0.659			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	179.068	25.457		49.818		26.444		0.000		26.444			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*	PROJECT 2234: *Lightweight Hybrid Torpedo*

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: February 2013
APPROPRIATION/BUDGET ACTIVITY *1319: Research, Development, Test & Evaluation, Navy* *BA 05: Development & Demonstration*	R-1 ITEM NOMENCLATURE *PE 0604610N: Lightweight Torpedo Development*	PROJECT *2234: Lightweight Hybrid Torpedo*



- ATT = Anti-Torpedo Torpedo
- CDR = Critical Design Review
- DT = Development Testing
- IOC = Initial Operation Capability
- OT = Operational Testing

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604610N: *Lightweight Torpedo Development*	PROJECT 2234: *Lightweight Hybrid Torpedo*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2234				
Tech Insertion 1 (TI-1) /New Array Production Readiness Review (PRR):	1	2014	1	2014
Tech Insertion 1 (TI-1)/New Array Developmental Testing (DT):	1	2014	2	2014
Tech Insertion 1 (TI-1) /New Array OT:	3	2014	2	2016
Tech Insertion 1 (TI-1) /New Array IOC:	3	2016	3	2016
Software Spirals BUG/CAT OT:	2	2012	2	2013
Software Spirals BUG/CAT OT: Software Spirals BUG/CAT IOC: Schedule Detail	3	2013	3	2013
Software Spirals BUG/CAT OT: Torpedo UON Rapid Fielding (TURF): Schedule Detail	1	2012	2	2012
Software Spirals BUG/CAT OT: Torpedo UON Rapid Fielding IOC:	2	2012	2	2012
Software Spirals BUG/CAT OT: Anti-Torpedo Torpedo (ATT) Demonstration: Schedule Detail	1	2012	1	2013
Software Spirals BUG/CAT OT: APB 5:	1	2012	2	2014
Software Spirals BUG/CAT OT: APB 6:	1	2017	4	2018
Software Spirals BUG/CAT OT: HAAWC Design/Development/Qualification:	1	2012	1	2015
Software Spirals BUG/CAT OT: HAAWC Production Readiness Review (PRR):	1	2015	1	2015
Software Spirals BUG/CAT OT: HAAWC DT:	1	2014	4	2014
Software Spirals BUG/CAT OT: HAAWC OT:	4	2015	3	2016
Software Spirals BUG/CAT OT: HAAWC IOC:	4	2016	4	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604654N: *JT Service EOD*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	254.482	11.954	10.099	8.897	-	8.897	10.304	10.413	10.655	10.797	Continuing	Continuing
1829: *Expl Ord Disp Proc*	254.482	11.954	10.099	8.897	-	8.897	10.304	10.413	10.655	10.797	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

DOD Directive 5160.62 assigned to the Secretary of the Navy (SECNAV) the responsibility of Single Manager for Explosive Ordnance Disposal (EOD) Technology and Training (T&T). It also assigns to the Executive Manager for EODT&T the responsibility to provide for technical development, validation, preparation, Joint Service approval, and distribution of all EOD procedures texts, graphic aids, manuals, and bulletins. This program provides for the development of validated EOD render-safe procedures (RSPs), key identification features, and safety information used by EOD personnel in all four military services when performing their mission of rendering safe and disposing of both domestic and foreign explosive ordnance and Improvised Explosive Devices (IEDs) that pose a threat to military operations, installations, personnel, and materials. In addition, EOD render-safe procedures for foreign ordnance must be developed as soon as possible after gaining knowledge of its existence. This effort requires exploitation and analysis of the foreign ordnance prior to development of the procedures. The program also provides for the development and evaluation of prototypical EOD Tier Two solutions sets for threats Identified in the National Response Framework. This effort also provides resources necessary for the Foreign Threat Mine Acquisition/Exploitation (FTMA/E) program. This effort includes acquisition, inert certification, intelligence and operational exploitation, analysis, procedure development, and disposition of the highest priority foreign threat naval mines.

This program is a non-acquisition program (without traditional acquisition milestones) with on-going, continuous delivery of urgent and periodic documented procedures and identification guides.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0604654N: *JT Service EOD*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	13.460	10.099	10.128	-	10.128
Current President's Budget	11.954	10.099	8.897	-	8.897
Total Adjustments	-1.506	0.000	-1.231	-	-1.231
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.246	0.000			
• SBIR/STTR Transfer	-0.260	0.000			
• Program Adjustments	0.000	0.000	-0.031	-	-0.031
• Rate/Misc Adjustments	0.000	0.000	-1.200	-	-1.200

Change Summary Explanation

Program Adjustments: FY14 $1.231K in Total MISC Adjustments.

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604654N: *JT Service EOD*	PROJECT 1829: *Expl Ord Disp Proc*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1829: *Expl Ord Disp Proc*	254.482	11.954	10.099	8.897	-	8.897	10.304	10.413	10.655	10.797	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

DOD Directive 5160.62 assigned to the Secretary of the Navy (SECNAV) the responsibility of Single Manager for Explosive Ordnance Disposal (EOD) Technology and Training (T&T). It also assigns to the Executive Manager for EODT&T the responsibility to provide for technical development, validation, preparation, Joint Service approval, and distribution of all EOD procedures texts, graphic aids, manuals, and bulletins. This program provides for the development of validated EOD render-safe procedures (RSPs), key identification features, and safety information used by EOD personnel in all four military services when performing their mission of rendering safe and disposing of both domestic and foreign explosive ordnance and Improvised Explosive Devices (IEDs) that pose a threat to military operations, installations, personnel, and materials. In addition, EOD render-safe procedures for foreign ordnance must be developed as soon as possible after gaining knowledge of its existence. This effort requires exploitation and analysis of the foreign ordnance prior to development of the procedures. The program also provides for the development and evaluation of prototypical EOD Tier Two solutions sets for threats Identified in the National Response Framework. This effort also provides resources necessary for the Foreign Threat Mine Acquisition/Exploitation (FTMA/E) program. This effort includes acquisition, inert certification, intelligence and operational exploitation, analysis, procedure development, and disposition of the highest priority foreign threat naval mines.

This program is a non-acquisition program (without traditional acquisition milestones) with on-going, continuous delivery of urgent and periodic documented procedures and identification guides.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Render-Safe Procedures (RSP) Development	3.694	4.239	4.237
Articles:	0	0	0
FY 2012 Accomplishments: Analyzed and exploited foreign ordnance items resulting in the development of render-safe procedures for use by the EOD Community.			
FY 2013 Plans: Analyze and exploit foreign ordnance items and develop render-safe procedures for new ordnance domestic and foreign.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604654N: *JT Service EOD*	PROJECT 1829: *Expl Ord Disp Proc*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Identify, reverse engineer, analyze and exploit ordnance items for the purpose of developing EOD Render-Safe procedures.			
Title: Improvised Nuclear Device (IND) Countermeasures	2.702	3.093	2.588
Articles:	0	0	0
FY 2012 Accomplishments: Developed specialized procedures for EOD response elements to stay ahead of the response to IND and WMD threats.			
FY 2013 Plans: Develop procedures and information for EOD responders to IND and WMD incidents and maintain technologies to stay ahead of the evolving IND and WMD threats.			
FY 2014 Plans: Analyze and exploit IND and WMD threats for the purpose of developing EOD procedures to combat those threats.			
Title: Foreign Mine Acquisition	2.058	2.767	2.072
Articles:	0	0	0
FY 2012 Accomplishments: Acquired high priority foreign mines for exploitation and analyses leading to development of procedures to counter these threats.			
FY 2013 Plans: Acquire and analyze foreign mines of the highest priority for exploitation and development of countermeasures procedures.			
FY 2014 Plans: Acquire acquisition of foreign mines resulting for analysis and exploitation resulting in countermeasure procedures.			
Title: Joint Service EOD Speical Missions OCO	3.500	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: OCO: Joint Service EOD Special Mission Support - Platoons supporting SOF/NAVSOF have unique mission requirements per CONPLAN 0300. There are unique tools for these forces that need to be developed and/or modified from COTS to provide agile counter WMD and counter proliferation capability when supporting COCOM contingency. These forces are deployed in direct support of SOF/NAVSOF in AF/IZ and must have this expanded capability if directed by COCOM. All technology will be developed and operationally tested within 12 months.			
Accomplishments/Planned Programs Subtotals	11.954	10.099	8.897

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604654N: *JT Service EOD*	PROJECT 1829: *Expl Ord Disp Proc*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

This is a non-acquisition program.

E. Performance Metrics

Analyzed and exploited foreign and domestic ordnance resulting in the development of 140 validated render-safe procedures and the development of 1,554 procedures providing ordnance key identification features, safety information and other technical details for the Joint Service EOD community. Also developed and validated 299 IED / WMD countermeasures procedures.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604654N: *JT Service EOD*	PROJECT 1829: *Expl Ord Disp Proc*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Foreign Mine Acquisition	WR	NSWCPC:PANAMA CITY, FL	0.000	2.236	Oct 2011	2.752	Oct 2012	2.057	Oct 2013	-		2.057	Continuing	Continuing	Continuing
Special Mission OCO	WR	EODTD:Indian Head, MD	0.000	3.500	Oct 2011	0.000		0.000		-		0.000	0.000	3.500	
RSP Development	WR	EODTD:Indian Head, MD	171.978	3.409	Oct 2011	3.714	Oct 2012	4.137	Oct 2013	-		4.137	Continuing	Continuing	Continuing
IND Countermeasures	WR	EODTD:Indian Head, MD	40.092	2.444	Oct 2011	2.806	Oct 2012	2.338	Oct 2013	-		2.338	Continuing	Continuing	Continuing
Foreign Mine Acquisition	WR	ONI:Suitland, MD	23.355	0.015	Oct 2011	0.015	Oct 2012	0.015	Oct 2013	-		0.015	Continuing	Continuing	Continuing
Program Management Personnel	WR	EODTD:Indian Head, MD	3.455	0.250	Oct 2011	0.250	Oct 2012	0.250	Oct 2013	-		0.250	Continuing	Continuing	Continuing
Miscellaneous	WR	EODTD:Indian Head, MD	15.602	0.100	Oct 2011	0.562	Oct 2012	0.100	Oct 2013	-		0.100	Continuing	Continuing	Continuing
		Subtotal	254.482	11.954		10.099		8.897		0.000		8.897			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	254.482	11.954		10.099		8.897		0.000		8.897			

Remarks

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	10.098	12.552	7.348	6.233	-	6.233	7.669	7.793	7.926	8.069	Continuing	Continuing
1822: *Manpower Pers & Human Fact System*	10.098	12.552	7.348	6.233	-	6.233	7.669	7.793	7.926	8.069	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This non-acquisition category program provides funds for continued (but less risky) R&D for broader application of advanced technologies to transition successful research proof-of-concept demonstrations into operational use. Development of prototype systems to support and/or improve operational requirements of manpower and personnel sponsors is the primary goal of this Engineering Development Program. The R&D Program features the use of a broad range of technologies from cognitive science, human systems integration, learning management, content management & delivery, learning and ability testing techniques, mathematical modeling and optimization, statistical and econometric forecasting, intelligent systems, data visualization, data mining, simulation, decision support systems, and new services oriented architectures to include applications, databases and communications configuration. This non-acquisition category program provides funds for continued R&D for broader application of advanced training technologies and the science of learning to transition successful research proof of concept demonstrations and rapid prototyping of Commercial off the Shelf/Government off the Shelf (COTS/GOTS) technologies into operational use.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	12.992	7.348	7.514	-	7.514
Current President's Budget	12.552	7.348	6.233	-	6.233
Total Adjustments	-0.440	0.000	-1.281	-	-1.281
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.440	0.000			
• Rate/Misc Adjustments	0.000	0.000	-1.281	-	-1.281

Change Summary Explanation

Technical: Not applicable.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604703N: *Personnel, Trng, Sim, & Human Factors*

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	PROJECT 1822: *Manpower Pers & Human Fact System*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1822: *Manpower Pers & Human Fact System*	10.098	12.552	7.348	6.233	-	6.233	7.669	7.793	7.926	8.069	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

L1822/Manpower, Personnel, Training, Sim, and Human Factors. This non-acquisition category program provides funds for continued (but less risky) R&D for broader application of advanced technologies to transition successful 6.3 research proof-of-concept demonstrations into operational use. Development of prototype systems to support and/or improve operational requirements of manpower and personnel sponsors is the primary goal of this Engineering Development Program. The 6.5 R&D Program features the use of a broad range of technologies from cognitive science and ability testing techniques, mathematical modeling and optimization, statistical and econometric forecasting, intelligent systems, data visualization, data mining, simulation, decision support systems, and new database and communications configuration.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Manpower Pers & Human Fact System	12.552	7.348	6.233
Articles:	9	6	6

Description: This program is funded under RDT&E operational systems development because it encompasses engineering and development of new end-items prior to production approval decision, and the upgrading and enhancement of existing MPTE decision support systems, tools and models.

FY 2012 Accomplishments:

- Continued transitioning of Future Naval Warfighter Capabilities (FNWC) Capable Manpower products.
- Completed transition of Integrated System for Language Education and Training (ISLET).
- Continued Training and Supply Chain Management Decision Support Systems integration and transition.
- Continued Improved Manpower and Personnel Integration Tool.
- Continued transition of Future Naval Warfighter Capabilities (FNWC) Capable Manpower (CM) Refresh of early prototypes.
- Continued development of Training Capacity Tradeoff Model.
- Continued enhancement of products delivered via World Class Modeling.
- Completed transition of DARPA Digital Tutor to Center for Information Dominance for IT Training.
- Started Virtual World Virtual Training.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	PROJECT 1822: *Manpower Pers & Human Fact System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Started GFMDI implementation. - Started Fleet Ride Reserve Component (RC) to Active Component (AC). - Small Business Innovative Research (SBIR). ***FY 2013 Plans:*** - Continue transitioning of Future Naval Warfighter Capabilities (FNWC) Capable Manpower products. - Continue Training and Supply Chain Management Decision Support Systems integration and transition. - Complete Improved Manpower and Personnel Integration Tool. - Continue transition of Future Naval Warfighter Capabilities (FNWC) Capable Manpower (CM) Refresh of early prototypes. - Continue development of Training Capacity Tradeoff Model. - Continue enhancement of products delivered via World Class Modeling. - Complete Virtual World Virtual Training. - Transfer GFMDI project to PE 0605013N. - Completed Fleet Ride Reserve Component (RC) to Active Component (AC). - Start CNRC Applicant Relationship Management (ARM). - Small Business Innovative Research (SBIR). ***FY 2014 Plans:*** - Complete transitioning of Future Naval Warfighter Capabilities (FNWC) Capable Manpower products. - Continue Training and Supply Chain Management Decision Support Systems integration and transition. - Continue transition of Future Naval Warfighter Capabilities (FNWC) Capable Manpower (CM) Refresh of early prototypes. - Continue development of Training Capacity Tradeoff Model. - Continue enhancement of products delivered via World Class Modeling. - Complete CNRC Applicant Relationship Management (ARM). - Start transition of Performance Shaping Functions. - Small Business Innovative Research (SBIR).			
Accomplishments/Planned Programs Subtotals	12.552	7.348	6.233

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	PROJECT 1822: *Manpower Pers & Human Fact System*

E. Performance Metrics

This PE provides funding to support the transition of models and decision support tools from RDT&E funded research, Science and Technology (6.2-6.3), to production and into the hands of analysts and program managers throughout the Manpower, Personnel, Training and Education enterprise. The PE also supports the application of proven industry models, tools and methodologies to Navy MPTE problems where GOTS solutions are non-existent. One goal of this PE is to transition 90% of successful S&T products to production and eventual use within the Navy. An acceptable metric will be to successfully transition 80% of the products. The second goal of the PE is to successfully implement 90% of the industry-standard tools that are attempted to be used in Navy applications.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	PROJECT 1822: *Manpower Pers & Human Fact System*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Sofftware Development	C/IDIQ	Acuitus:Palo Alto, CA	4.800	8.000	Sep 2013	0.000		0.000		-		0.000	0.000	12.800	
		Subtotal	4.800	8.000		0.000		0.000		0.000		0.000	0.000	12.800	

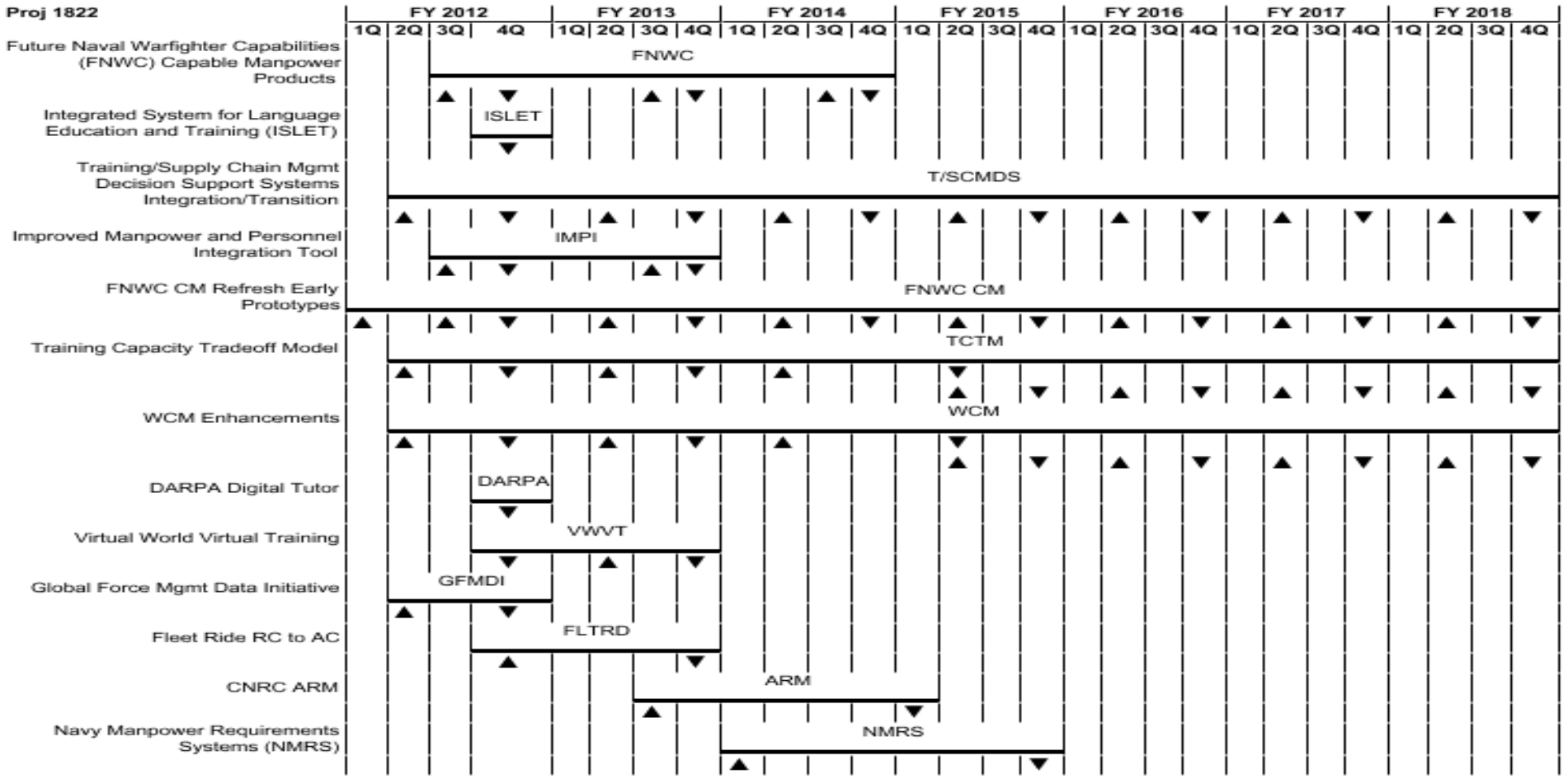
Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	Allot	NPRST:Millington, TN	2.540	1.700	Aug 2012	1.700	Mar 2013	2.700	Mar 2014	-		2.700	Continuing	Continuing	Continuing
Development Support	Allot	CNP:Washington, DC	1.823	0.007	Aug 2012	2.848	Mar 2013	1.483	Mar 2014	-		1.483	Continuing	Continuing	Continuing
Development Support	Allot	NPC PMW-240:Millington, TN	0.935	0.395	Aug 2012	0.000		0.000		-		0.000	0.000	1.330	
Development Support	Allot	NAWC-TSD:Orlando, FL	0.000	0.500	Aug 2012	0.000		0.000		-		0.000	0.000	0.500	
Development Support	SS/IDIQ	SLC:New London, CT	0.000	0.950	Aug 2012	0.900	Mar 2013	0.000		-		0.000	0.000	1.850	
Development Support	Allot	NPC, HP Texas:Millington, TN	0.000	1.000	Aug 2012	0.200	Apr 2013	0.000		-		0.000	0.000	1.200	
Development Support	Allot	CNRC PMW 240:Millington, TN	0.000	0.000		1.700	Apr 2013	1.800	Apr 2014	-		1.800	0.000	3.500	
Development Support	Allot	NAVMAC PMW 240:Millington, TN	0.000	0.000		0.000		0.250	Apr 2014	-		0.250	0.000	0.250	
		Subtotal	5.298	4.552		7.348		6.233		0.000		6.233			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	10.098	12.552		7.348		6.233		0.000		6.233			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	PROJECT 1822: *Manpower Pers & Human Fact System*



2014PB - 0604703N - 1822 Up=Demonstration; Down=Prototype & Documenation

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	**PROJECT** 1822: *Manpower Pers & Human Fact System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 1822				
Future Naval Warfighter Capabilities (FNWC) Capable Manpower Products: Future Naval Warfighter Capabilities (FNWC) Capable Manpower Products	3	2012	4	2014
Future Naval Warfighter Capabilities (FNWC) Capable Manpower Products: FNWC 1	3	2012	3	2012
Future Naval Warfighter Capabilities (FNWC) Capable Manpower Products: FNWC 2	4	2012	4	2012
Future Naval Warfighter Capabilities (FNWC) Capable Manpower Products: FNWC 3	3	2013	3	2013
Future Naval Warfighter Capabilities (FNWC) Capable Manpower Products: FNWC 4	4	2013	4	2013
Future Naval Warfighter Capabilities (FNWC) Capable Manpower Products: FNWC 5	3	2014	3	2014
Future Naval Warfighter Capabilities (FNWC) Capable Manpower Products: FNWC 6	4	2014	4	2014
Integrated System for Language Education and Training (ISLET): Integrated System for Language Education and Training (ISLET)	4	2012	4	2012
Integrated System for Language Education and Training (ISLET): ISLET 1	4	2012	4	2012
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: Training/Supply Chain Mgmt Decision Support Systems Integration/Transition	2	2012	4	2018
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/SCMDS 1	2	2012	2	2012
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/SCMDS 2	4	2012	4	2012
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/SCMDS 3	2	2013	2	2013
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/SCMDS 4	4	2013	4	2013
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/SCMDS 5	2	2014	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	PROJECT 1822: *Manpower Pers & Human Fact System*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/ SCMDS 6	4	2014	4	2014
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/ SCMDS 7	2	2015	2	2015
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/ SCMDS 8	4	2015	4	2015
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/ SCMDS 9	2	2016	2	2016
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/ SCMDS I0	4	2016	4	2016
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/ SCMDS I1	2	2017	2	2017
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/ SCMDS I2	4	2017	4	2017
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/ SCMDS I3	2	2018	2	2018
Training/Supply Chain Mgmt Decision Support Systems Integration/Transition: T/ SCMDS I4	4	2018	4	2018
Improved Manpower and Personnel Integration Tool: Improved Manpower and Personnel Integration Tool	3	2012	4	2013
Improved Manpower and Personnel Integration Tool: IMPI 1	3	2012	3	2012
Improved Manpower and Personnel Integration Tool: IMPI 2	4	2012	4	2012
Improved Manpower and Personnel Integration Tool: IMPI 3	3	2013	3	2013
Improved Manpower and Personnel Integration Tool: IMPI 4	4	2013	4	2013
FNWC CM Refresh Early Prototypes: FNWC CM Refresh Early Prototypes	1	2012	4	2018
FNWC CM Refresh Early Prototypes: FNWC CM 1	1	2012	1	2012
FNWC CM Refresh Early Prototypes: FNWC CM 2	3	2012	3	2012
FNWC CM Refresh Early Prototypes: FNWC CM 3	4	2012	4	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	PROJECT 1822: *Manpower Pers & Human Fact System*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FNWC CM Refresh Early Prototypes: FNWC CM 4	2	2013	2	2013
FNWC CM Refresh Early Prototypes: FNWC CM 5	4	2013	4	2013
FNWC CM Refresh Early Prototypes: FNWC CM 6	2	2014	2	2014
FNWC CM Refresh Early Prototypes: FNWC CM 7	4	2014	4	2014
FNWC CM Refresh Early Prototypes: FNWC CM 8	2	2015	2	2015
FNWC CM Refresh Early Prototypes: FNWC CM 9	4	2015	4	2015
FNWC CM Refresh Early Prototypes: FNWC CM 10	2	2016	2	2016
FNWC CM Refresh Early Prototypes: FNWC CM 11	4	2016	4	2016
FNWC CM Refresh Early Prototypes: FNWC CM 12	2	2017	2	2017
FNWC CM Refresh Early Prototypes: FNWC CM 13	4	2017	4	2017
FNWC CM Refresh Early Prototypes: FNWC CM 14	2	2018	2	2018
FNWC CM Refresh Early Prototypes: FNWC CM 15	4	2018	4	2018
Training Capacity Tradeoff Model: Training Capacity Tradeoff Model	2	2012	4	2018
Training Capacity Tradeoff Model: TCTM 1	2	2012	2	2012
Training Capacity Tradeoff Model: TCTM 2	4	2012	4	2012
Training Capacity Tradeoff Model: TCTM 3	2	2013	2	2013
Training Capacity Tradeoff Model: TCTM 4	4	2013	4	2013
Training Capacity Tradeoff Model: TCTM 5	2	2014	2	2014
Training Capacity Tradeoff Model: TCTM 6	2	2015	2	2015
Training Capacity Tradeoff Model: TCTM 7	2	2015	2	2015
Training Capacity Tradeoff Model: TCTM 8	4	2015	4	2015
Training Capacity Tradeoff Model: TCTM 9	2	2016	2	2016
Training Capacity Tradeoff Model: TCTM 10	4	2016	4	2016
Training Capacity Tradeoff Model: TCTM 11	2	2017	2	2017
Training Capacity Tradeoff Model: TCTM 12	4	2017	4	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	PROJECT 1822: *Manpower Pers & Human Fact System*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Training Capacity Tradeoff Model: TCTM 13	2	2018	2	2018
Training Capacity Tradeoff Model: TCTM 14	4	2018	4	2018
WCM Enhancements: WCM Enhancements	2	2012	4	2018
WCM Enhancements: WCM 1	2	2012	2	2012
WCM Enhancements: WCM 2	4	2012	4	2012
WCM Enhancements: WCM 3	2	2013	2	2013
WCM Enhancements: WCM 4	4	2013	4	2013
WCM Enhancements: WCM 5	2	2014	2	2014
WCM Enhancements: WCM 6	2	2015	2	2015
WCM Enhancements: WCM 7	2	2015	2	2015
WCM Enhancements: WCM 8	4	2015	4	2015
WCM Enhancements: WCM 9	2	2016	2	2016
WCM Enhancements: WCM 10	4	2016	4	2016
WCM Enhancements: WCM 11	2	2017	2	2017
WCM Enhancements: WCM 12	4	2017	4	2017
WCM Enhancements: WCM 13	2	2018	2	2018
WCM Enhancements: WCM 14	4	2018	4	2018
DARPA Digital Tutor: DARPA Digital Tutor	4	2012	4	2012
DARPA Digital Tutor: DARPA 1	4	2012	4	2012
Virtual World Virtual Training: Virtual World Virtual Training	4	2012	4	2013
Virtual World Virtual Training: VWVT 1	4	2012	4	2012
Virtual World Virtual Training: VWVT 2	2	2013	2	2013
Virtual World Virtual Training: VWVT 3	4	2013	4	2013
Global Force Mgmt Data Initiative: Global Force Mgmt Data Initiative	2	2012	4	2012
Global Force Mgmt Data Initiative: GFMDI 1	2	2012	2	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604703N: *Personnel, Trng, Sim, & Human Factors*	PROJECT 1822: *Manpower Pers & Human Fact System*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Global Force Mgmt Data Initiative: GFMDI 2	4	2012	4	2012
Fleet Ride RC to AC: Fleet Ride RC to AC	4	2012	4	2013
Fleet Ride RC to AC: FLTRD 1	4	2012	4	2012
Fleet Ride RC to AC: FLTRD 2	4	2013	4	2013
CNRC ARM: CNRC ARM	3	2013	1	2015
CNRC ARM: ARM 1	3	2013	3	2013
CNRC ARM: ARM 2	1	2015	1	2015
Navy Manpower Requirements Systems (NMRS): Navy Manpower Requirements Systems (NMRS)	1	2014	4	2015
Navy Manpower Requirements Systems (NMRS): NMRS 1	1	2014	1	2014
Navy Manpower Requirements Systems (NMRS): NMRS 2	4	2015	4	2015

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604727N: *Joint Standoff Weapon Systems*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	869.513	7.303	5.518	0.442	-	0.442	0.425	0.426	0.452	0.459	2.400	886.938
2068: *Joint Standoff Weapon (JSOW)*	869.513	7.303	5.518	0.442	-	0.442	0.425	0.426	0.452	0.459	2.400	886.938
MDAP/MAIS Code(s): 766												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Joint Standoff Weapon (JSOW) is an air-to-ground weapon designed to attack a variety of targets during day, night, and adverse weather conditions. JSOW will enhance aircraft survivability as compared to current interdiction weapon systems by providing the capability for launch aircraft to standoff outside the range of most target area surface-to-air threat systems. The JSOW launch-and-leave capability will allow several target kills per aircraft sortie. The JSOW program first developed a baseline weapon for use against fixed area targets. JSOW is a Navy-led joint Navy/Air Force program.

The JSOW Baseline (AGM-154A) variant includes a kinematically efficient airframe, an integrated Inertial/Global Positioning System navigation capability, and a BLU-97/B or BLU-111 payload. This weapon was designed up front for pre-planned product improvements. Procurement of JSOW-A in the FYDP is deferred pending a fix to the Unexploded Ordnance issue or a change in the inventory levels. The JSOW BLU-108 (AGM-154B) variant incorporates the Sensor Fuze Weapon submunition (BLU-108) into the baseline vehicle. Planned production of the JSOW/BLU-108 is deferred pending a change in the threat. The JSOW Unitary (AGM-154C) variant has a terminal seeker, Autonomous Target Acquisition capability, and a Broach lethal package to enable the attack of blast/fragmentation and penetration type targets. The JSOW Unitary provides increased accuracy and lethality and the capability for aimpoint selection. Operational Testing of the JSOW-C was successfully completed in December 2004. Approval for Milestone-III/Full Rate Production was granted on 20 December 2004. JSOW-C Initial Operational Capability was achieved in February 2005.

FY 2012-2014 includes funding for development, integration, qualification and follow-on developmental and operational test and evaluation of a Network Enabled Weapon moving maritime target capability into the JSOW Unitary weapon (AGM-154C-1). The moving maritime target capability is currently being integrated as an Engineering Change Proposal beginning with FY 2009 procured JSOW-C weapons. The new AGM-154C-1 capability will enable the weapon to be integrated with the network and attack sea moving maritime targets via real-time pre-and post-launch targeting updates. JSOW will continue to conduct analysis and development of solutions to system integration challenges, and continual enhancement of warfighter effectiveness in the employment of the JSOW weapon system. JSOW funding will provide enhancements to include the analysis of extended range and future improvements to the JSOW-C configuration to improve capability. In addition, FY 2012-2014 includes funding to integrate new functionality of the Common Unique Planning Component into the Joint Mission Planning Systems and Precision Guided Munitions Planning System.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604727N: *Joint Standoff Weapon Systems*

JSOW utilizes a "common truck" for both AGM-154A and AGM-154C variants. Through adherence to international standards for weapons interfaces, weight, and dimension considerations, JSOW is compatible with Air Force and NATO aircraft.

This program is funded under System Development and Demonstration because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	7.506	5.518	0.444	-	0.444
Current President's Budget	7.303	5.518	0.442	-	0.442
Total Adjustments	-0.203	0.000	-0.002	-	-0.002
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.054	0.000			
• SBIR/STTR Transfer	-0.149	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.002	-	-0.002

Change Summary Explanation

Schedule:

(1) JSOW C-1 IOC changed from 3Q FY13 to 4Q FY14 as a result of the integration with the final F/A-18 H10 Operational Flight Program which has been delayed.

(2) OTRR changed from 4Q FY12 to 3Q FY14 as a result of the integration with the final F/A-18 H10 Operational Flight Program which has been delayed.

The change in schedule as a result of the final F/A-18 H10 Operational Flight Program has forced the realignment of the JSOW C-1 integrated test events.
(3) IT-I moved from starting in 1Q FY12 to 3Q FY12.
(4) IT-II moved from starting in 1Q FY12 to 4Q FY12.
(5) IT-III moved from starting in 2Q FY12 to 4Q FY12.
(6) IT-IV moved from starting n 3Q FY12 to 4Q FY12.
(7) OT IIIB was moved from starting in 1Q FY13 to 3Q FY14.
(8) OT Final Report was changed from 2Q FY13 to 1Q FY15.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604727N: *Joint Standoff Weapon Systems*	PROJECT 2068: *Joint Standoff Weapon (JSOW)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2068: *Joint Standoff Weapon (JSOW)*	869.513	7.303	5.518	0.442	-	0.442	0.425	0.426	0.452	0.459	2.400	886.938
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Includes RDT&E funds for the development of a weapon to be employed by aircraft to attack targets during day, night, and adverse weather conditions. The Joint Standoff Weapon System (JSOW) design will capitalize on aircraft sensor capabilities and minimize individual weapon sophistication, reducing unit cost and provides a significant increase in strike warfare capability. Excludes civilian and military manpower and their related costs and military construction costs which are included in appropriate management and support elements in this program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Network Enabled Weapon (NEW)	7.303	5.420	0.342
Articles:	0	0	0
Description: Develop and integrate the NEW moving maritime target capability into JSOW-C, termed AGM-154C-1.			
FY 2012 Accomplishments: Continued weapon qualification and follow-on Developmental/Operational Test efforts.			
FY 2013 Plans: Continuing weapon qualification and follow-on Operational Test efforts.			
FY 2014 Plans: Complete weapon qualification and follow-on Operational Test efforts and continue support for software integration associated with future obsolescence, software improvements and regression testing on NEW moving maritime target capability.			
Title: JSOW Common Unique Planning Component (CUPC)	0.000	0.098	0.100
Articles:		0	0
Description: Plan new functions into the JSOW maritime CUPC and develop new software releases. Address new mission planning functionality related to the incorporation of the NEW moving target capability into the JSOW-C-1 weapons.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604727N: *Joint Standoff Weapon Systems*	PROJECT 2068: *Joint Standoff Weapon (JSOW)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Resume interoperability efforts for JSOW C-1. ***FY 2014 Plans:*** Continue interoperability efforts for JSOW C-1.			
Accomplishments/Planned Programs Subtotals	7.303	5.518	0.442

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• USN WP,N BLI 223000: *JSOW*	131.722	127.609	136.794		136.794	167.984	170.438	173.448	197.309	1,048.835	3,935.257

Remarks

D. Acquisition Strategy

The contracting strategy for JSOW is planned to be sole source for the life of the program. Cost type contracts are utilized for the Engineering and Manufacturing Development and follow-on modification program (i.e., Block II (AGM-154C), AGM-154C-1) efforts. Component breakout is used, when possible, to promote full and open competition.

Fixed price type contracts are utilized for production.

E. Performance Metrics

The JSOW C-1 program is meeting the cost schedule, performance, funding and life cycle sustainment in accordance with the Acquisition Program Baseline.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604727N: *Joint Standoff Weapon Systems*	PROJECT 2068: *Joint Standoff Weapon (JSOW)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPFF	Raytheon Systems:Tucson, AZ	76.904	2.997	Nov 2011	0.000		0.000		-		0.000	0.000	79.901	79.901
System Engineering	MIPR	National Security Agency:Maryland	0.699	0.115	Feb 2012	0.111	Feb 2013	0.000		-		0.000	0.000	0.925	0.925
System Engineering	WR	Naval Research Lab:Maryland	0.945	0.140	Nov 2011	0.143	Nov 2012	0.000		-		0.000	0.000	1.228	
System Engineering	WR	NAWCWD:China Lake, CA	109.068	0.935	Nov 2011	0.322	Aug 2013	0.242	Nov 2013	-		0.242	0.000	110.567	
System Engineering Various	WR	Various:Various	0.000	0.050	Nov 2011	0.000		0.000		-		0.000	0.000	0.050	
Prior year Prod Dev cost no longer funded in the FYDP	Various	Various:Various	601.305	0.000		0.000		0.000		-		0.000	0.000	601.305	
		Subtotal	788.921	4.237		0.576		0.242		0.000		0.242	0.000	793.976	

Remarks

(1) The target value of the contract exceeds the JSOW funding because the Harpoon Block III (PE0604227N PU1843) program shares a portion of the Strike Common Weapons Data Link (SCWDL).

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development - JMPS	SS/CPFF	Lockheed Martin Systems Integration:King of Prussia, PA	5.620	0.000		0.098	Jun 2013	0.100	Dec 2013	-		0.100	4.956	10.774	10.774
Prior year Support cost no longer funded in the FYDP	Various	Various:Various	8.007	0.000		0.000		0.000		-		0.000	0.000	8.007	
		Subtotal	13.627	0.000		0.098		0.100		0.000		0.100	4.956	18.781	

Remarks

(1) Funding in previous years was sent to Raytheon Systems. Starting in FY13 a new contract will be utilized through Lockheed Martin Systems Integration.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604727N: *Joint Standoff Weapon Systems*	PROJECT 2068: *Joint Standoff Weapon (JSOW)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Int Test and Evaluation	WR	NAWCWD:China Lake, CA	30.646	3.016	Nov 2011	0.000		0.000		-		0.000	0.000	33.662	
Oper Test and Evaluation	WR	COMOPTEVFOR:Norfolk, VA	10.815	0.050	Nov 2011	4.844	Aug 2013	0.100	May 2014	-		0.100	0.000	15.809	
		Subtotal	41.461	3.066		4.844		0.100		0.000		0.100	0.000	49.471	

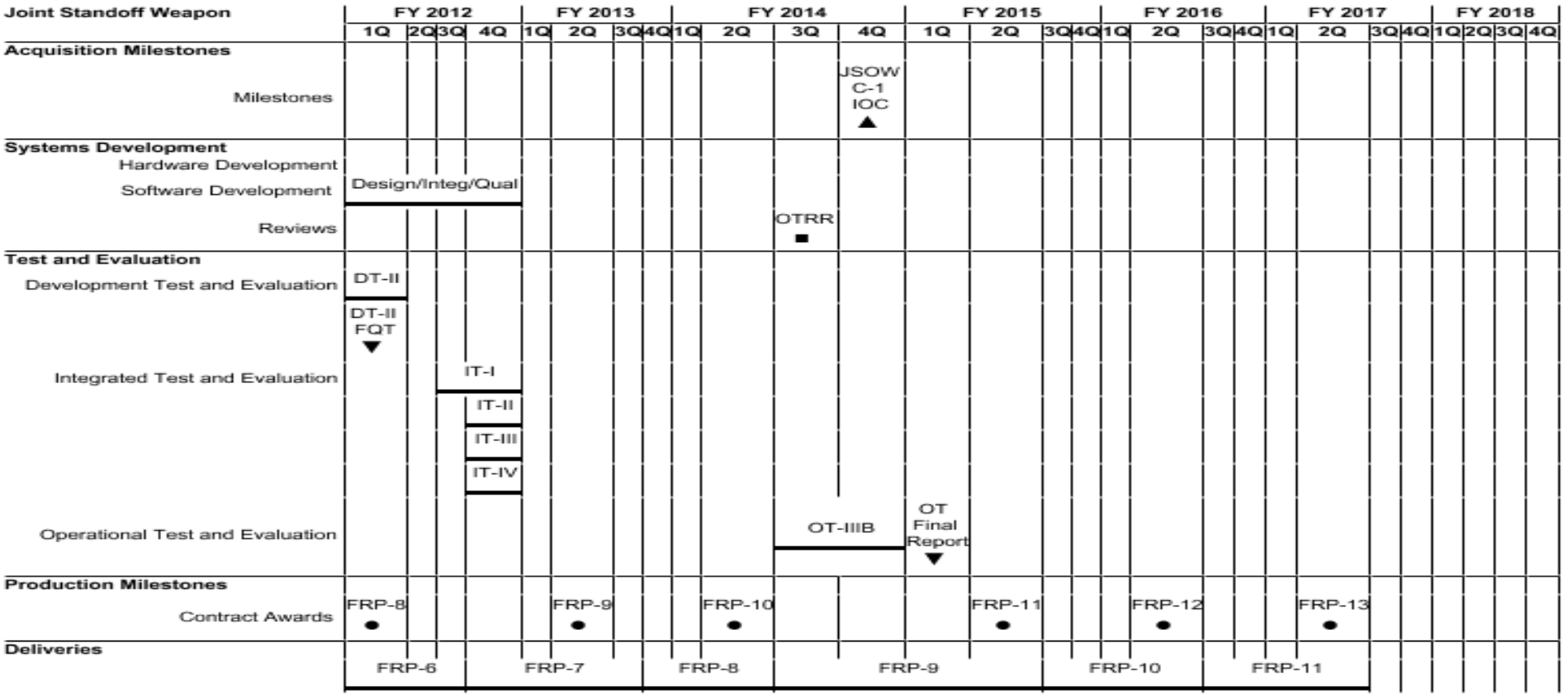
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior year Mgmt cost no longer funded in the FYDP	Various	Various:Various	25.504	0.000		0.000		0.000		-		0.000	0.000	25.504	
		Subtotal	25.504	0.000		0.000		0.000		0.000		0.000	0.000	25.504	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	869.513	7.303		5.518		0.442		0.000		0.442	4.956	887.732	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604727N: *Joint Standoff Weapon Systems*	PROJECT 2068: *Joint Standoff Weapon (JSOW)*



2014PB - 0604727N - 2068 OT Final Report refers to AGM-154C-1 Operational Test Agency Follow On Evaluation OT-IIIB Final Report
FRP-8 contract award occurred in December 2011
FRP-8 delivery schedule adjusted to a nine-month schedule to realign the JSOW production cycle FRP-9 and beyond. Prior variations in delivery schedules and contract award dates caused the production cycle misalignment.

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604727N: *Joint Standoff Weapon Systems*	PROJECT 2068: *Joint Standoff Weapon (JSOW)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Joint Standoff Weapon				
Acquisition Milestones: Milestones: Inital Operational Capability C-1	4	2014	4	2014
Systems Development: Software Development: Network Enabled Weapon/Moving Target/AGM-154C-1 Design/Integration/Qual	1	2012	4	2012
Systems Development: Reviews: Operational Test Readiness Review	3	2014	3	2014
Test and Evaluation: Development Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Development Test (DT-II)	1	2012	1	2012
Test and Evaluation: Development Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Development Test Final Qualification Test (DT-II)	1	2012	1	2012
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-I)	3	2012	4	2012
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-II)	4	2012	4	2012
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-III)	4	2012	4	2012
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-IIII)	4	2012	4	2012
Test and Evaluation: Operational Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Development Test (OT-IIIB)	3	2014	4	2014
Test and Evaluation: Operational Test and Evaluation: AGM-154C-1 JSOW Operational Test Agency Follow-On Evaluation Report OT-IIIB Final Report	1	2015	1	2015
Production Milestones: Contract Awards: FRP-8 Award AGM-154C-1	1	2012	1	2012
Production Milestones: Contract Awards: FRP-9 Award AGM-154C-1	2	2013	2	2013
Production Milestones: Contract Awards: FRP-10 Award AGM-154C-1	2	2014	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604727N: *Joint Standoff Weapon Systems*	PROJECT 2068: *Joint Standoff Weapon (JSOW)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Production Milestones: Contract Awards: FRP-11 Award AGM-154C-1	2	2015	2	2015
Production Milestones: Contract Awards: FRP-12 Award AGM-154C-1	2	2016	2	2016
Production Milestones: Contract Awards: FRP-13 Award AGM-154C-1	2	2017	2	2017
Deliveries: FRP-6 Deliveries- AGM-154C-1	1	2012	3	2012
Deliveries: FRP-7 Deliveries- AGM-154C-1	4	2012	3	2013
Deliveries: FRP-8 Deliveries- AGM-154C-1	4	2013	2	2014
Deliveries: FRP-9 Deliveries- AGM-154C-1	3	2014	2	2015
Deliveries: FRP-10 Deliveries- AGM-154C-1	3	2015	2	2016
Deliveries: FRP-11 Deliveries- AGM-154C-1	3	2016	2	2017

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	662.132	71.094	87.662	130.360	-	130.360	118.266	122.347	80.626	69.848	Continuing	Continuing
2178: *QRCC*	642.184	68.161	81.106	117.232	-	117.232	110.786	117.317	75.586	65.238	Continuing	Continuing
3172: *Joint Non-Lethal Weapons*	19.948	1.308	5.379	10.849	-	10.849	5.141	2.658	2.682	2.725	Continuing	Continuing
3306: *Integrated Swimmer Defense (ISD)*	0.000	1.625	1.177	1.198	-	1.198	1.219	1.242	1.265	1.285	Continuing	Continuing
3358: *SSDS Training Improvement Program*	0.000	0.000	0.000	1.081	-	1.081	1.120	1.130	1.093	0.600	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program element consolidates currently ongoing and planned programmatic efforts related to Detect & Control aspects of Ship Self Defense (SSD) to facilitate effective planning and management of these efforts and to exploit the synergistic relationship inherent in each. Analysis and demonstration have established that surface SSD based on single-sensor detection point-to-point control architecture is inadequate against current and projected Anti-Ship Cruise Missile (ASCM) threats. The supersonic seaskimming ASCM reduces the effective battle space to the horizon and the available reaction time-line to less than 30 seconds from first opportunity to detect until the ASCM impacts its target ship. Against such a threat, multi-sensor integration is required for effective detection, and parallel processing is essential to reduce reaction time to acceptable levels and to provide vital coordination/integration of hardkill and softkill assets. These SSD projects address and coordinate the detect and control functions necessary to meet the rigorous SSD requirements.

DETECTION: Improvements in coordinated sensor performance to increase the probability of detecting low altitude, low observable targets are to be achieved through the synergism gained from the integration of dissimilar sensor sources. Multi-sensor integration is being addressed through the efforts of Quick Reaction Combat Capability (QRCC, PU 2178). This provides improvements to both active and passive detection.

CONTROL: Multi-sensor integration, parallel processing and the coordination of hardkill/softkill capabilities in an automated, doctrine-based response to the ASCM threats are the cornerstones of Ship Self Defense System (SSDS) being developed through QRCC (PU 2178) efforts. In addition, this project provides for the central system engineering management for the integration of SSD developments, including efforts required to integrate SSDS with the Advanced Combat Direction System (ACDS) functionality for those ships having a CDS with the Open Architecture Computing Environment and with advanced sensor, weapon and C4I upgrades. The SSDS Training Improvement Program (PU 3358) is for the integration of Total Ship Training Capability (TSTC) improvements into the SSDS Advanced Capability Build (ACB) and Technology Insertion (TI) efforts under QRCC (PU 2178).

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*

Integrated Swimmer Defense (ISD, PU3306) scope is to provide the Navy Expeditionary security forces with capabilities of a portable marine integrated swimmer defense system (ISDS) to engage combat swimmers/divers or unknown individuals underwater once they have been detected.

Non-Lethal Weapons (PU 3172) provides a long range laser warning and dazzle systems for use in the maritime environment. Optical warning and distraction has been identified by the services as a possible technology solution to mitigate and/or address several known joint non-lethal capability gaps.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	71.222	87.662	73.032	-	73.032
Current President's Budget	71.094	87.662	130.360	-	130.360
Total Adjustments	-0.128	0.000	57.328	-	57.328
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.604	0.000			
• SBIR/STTR Transfer	-1.732	0.000			
• Program Adjustments	0.000	0.000	58.064	-	58.064
• Rate/Misc Adjustments	0.000	0.000	-0.736	-	-0.736

Change Summary Explanation

$5.4M was added in FY12 to project 2178 for product development of SSDS MK2 Link16 software improvements to support the Accelerated Mid-Term Interoperability Improvement effort (AMIIP) for AEGIS Wholeness. This addresses Fleet interoperability issues with code corrections centered on enhanced correlation processing and non-material solutions such as tactics, techniques and procedures.

$54.760M was added in FY14 to project 2178 to initiate product development for SSDS MK2 ACB-16 warfighting improvements based on a competitive acquisition strategy; and for technology refresh of the SSDS MK2 TI-12 Open Architecture Computing Environment equipment, designated as TI-16.

$2.295M was added in FY14 to the SSDS MK2 development test and evaluation for Combat system certification testing ashore for SSDS MK2-based Carrier and Amphibious ship combat systems.

$1.081M was added in FY14 under project 3358 for the integration of SSDS MK2 Total Ship Training Capability improvements into the SSDS MK2 ACB-16 and TI-16 efforts.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 2178: *QRCC*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2178: *QRCC*	642.184	68.161	81.106	117.232	-	117.232	110.786	117.317	75.586	65.238	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Quick Reaction Combat Capability (QRCC) project implements an evolutionary acquisition of improved ship self defense capabilities against Anti-Ship Cruise Missiles (ASCMs) for selected ships. The Ship Self Defense System (SSDS) is the integrating element of QRCC. The design integrates several existing stand-alone Anti-Air Warfare (AAW) systems that do not individually provide the complete detection, control, and engagement capabilities needed against low flying, high speed ASCMs with low radar cross sections. The SSDS integration concept fulfills the need for an automated detection, quick reaction and multi-target engagement capability emphasizing performance in the littoral environment. SSDS replaces manual control of several self-defense systems with a single integrated capability under the computer-aided control of ship operators. System design emphasizes use of non-developmental items, commercial standards, commercial processors, computer program reuse and open system architecture. SSDS is a physically distributed, open system architecture computer network consisting of commercially available or previously developed hardware. It includes the Navy's standard displays (AN/UYQ-70 and Common Display System) and command table for human-system interface, commercially based local area network access units and interface units, and commercially available fiber optic cabling.

SSDS MK1 integrates the SPS-49A(V)1 radar, SPS-67(V)1 radar, AN/SLQ-32A/B electronic warfare system, Combat Identification Friend or Foe-Self Defense (CIFF-SD), Rolling Airframe Missile (RAM) and Phalanx Close-In Weapon System and is installed on LSD41/49 class ships. SSDS MK1 successfully completed Operational Evaluation in June 1997. SSDS received Milestone III Approval for Full Rate Production (Mar 98) and authority to integrate with ACDS and Cooperative Engagement Capability (CEC) on CVN, LPD-17, LHD and LHA ship classes.

SSDS MK2 facilitates the incremental evolution and implementation of follow-on modifications. Development of SSDS MK2 leveraged critical experiments and re-use of technology and software from SSDS MK1. SSDS MK2 integrates other ship self defense elements, such as AN/SPQ-9B radar, NATO Sea-sparrow system, CEC and Tactical Data Links for joint interoperability. SSDS MK2 provides enhanced capabilities for Self Defense against air, and surface threats using both ownship and remote data to address AAW Capstone requirements. SSDS MK2 becomes the integrated, coherent real time Command and Control System for Aircraft Carriers and Amphibious ships. It will increase operational capabilities; improve combat readiness and Strike Group/Expeditionary Strike Group Interoperability; and promote standardization. It introduces new shipboard tactical displays and support equipment via Tech Insertion and warfighting capability improvements via Advanced Capability Builds (ACB). ACBs integrate advanced systems such as Dual Band Radar, Evolved Sea-Sparrow Missile (ESSM), RAM Block 2 missile, SLQ-32 SEWIP Block 2 and MH-60R Helicopter to implement the warfighting capability improvements and Total Ship Training Capability (TSTC) improvements.

In order to meet the Navy's warfighting capabilities and modernization concepts described in SEA POWER 21, Navy Open Architecture (OA) is being introduced in conjunction with SSDS P3I Commercial off the Shelf (COTS) Tech Refresh. This is the first step in unifying a set of war fighting functions into a common architecture

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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shared among many ship classes. This principle of commonality is a major mechanism for cost control and avoidances in the Navy's future war fighting systems. Starting in 2008, SSDS MK 2 was rehosted existing tactical computer program applications to the Open Architecture Computing Environment (OACE) specifications with equipment suites concurrent with P3I COTS Tech Insertion (TI) cycles, prior to migration and integration with other OA applications for implementation on future new construction ships or during future ship modernization. Tech Insertion cycles and equipment tech refresh are driven by COTS obsolescence. In FY09, system development was initiated for SSDS MK1 Technology Refresh for the LSD 41/49 class ships. The effort will transition these ships to an SSDS MK OACE and SSDS MK 2 single source library. New system designation is SSDS MK2 Mod 5C. The system development effort encompasses tech insertion of new OA computing and display equipment (Common Processor System (CPS) and Common Display System (CDS)), modifications and additions to the SSDS MK 2 software for an upgraded interface with the Phalanx Closed-In-Weapon System (CIWS) Block 1B Baseline 2 and Battle Force Tactical Trainer (BFTT), and other unique LSD SSDS interfaces and functionality. The first LSD SSDS MK 2 Mod 5C is programmed for FY14 installation after land-based Combat System Integration and Certification Testing with IOC in FY15. In FY10, SSDS MK 2 system development commenced for the first phase of migration to the Navy OA objective functional architecture designated as SSDS MK 2 ACB-12/TI-12. ACB-12/TI-12 encompasses: implementation of common product line software component for System Track Management; integration of the product line System Track Management components and associated data model with other SSDS software components and Combat System interfaces (e.g. CEC, Dual Band Radar, ESSM and JUWL up-link, RAM Block 2 and CV-TSC); integration of new interfaces with SEWIP Block 2 ES, MH-60R and Global Command & Control System-Maritime (GCCS-M) via Consolidated-Afloat Network and Enterprise Services (CANES); integration of Common Processors System and Common Display System; and expansion of SSDS MK 2 Local Area Network (LAN) to OA Combat System LAN. ACB-12/TI-12 is planned for IOC in the CVN 78, CVN 72 in FY16, and Amphibious Assault Ships in FY17. In FY12-FY13, planning, analysis, and top level requirements definition will be undertaken for SSDS MK 2 ACB-16/TI-16. ACB-16 warfighting improvement integration plan includes SEWIP Block 2 with automated radar designation decoy launch, CIWS and SPS-48G Sensor Integration, interoperability of IFF Mode 5/S and Joint Strike Fighter, advanced MH-60R integration, Total Ship Training Capability (TSTC) updates and GCCS-M Data Exchange via CANES. TI-16 will include common enterprise COTS Hardware / Software products for computing, storage, display, network switching, conversion, and information assurance devices to support system and equipment modernization driven by COTS obsolescence. Funds were added in FY13 for the integration and test of SSDS MK2 Link16 interoperability improvements to address critical Strike Group interoperability issues under the AEGIS Wholeness Initiative.

The SSDS MK2 Development Test and Evaluation (DT&E) provides for comprehensive testing of SSDS MK2-based Combat System hardware/software upgrades for the CVN, LPD 17, LHD, LHA 6 and LSD ship classes. This includes Land Based testing at Wallops Island and At-Sea testing in the lead ships for specific ship class Combat System configuration and testing in the Self Defense Test Ship. The DT&E encompasses test preparation, integration, engineering and development tests, data collection and analysis, and resolution and verification of deficiency corrections. The SSDS MK 2 T&E support Combat System certification, the SSDS Test and Evaluation Master Plan (TEMP) and the Air Warfare Ship Self Defense CAPSTONE Enterprise TEMP.

The initial Development Test and Evaluation (DT&E) and Follow On Operational Test and Evaluation (FOT&E) for SSDS MK 2 was conducted with the CVN 76 SSDS MK 2 Mod 1 configuration in FY05. In FY07, the SSDS MK 2 FOT&E requirements were linked with the Air Warfare Ship Self Defense Enterprise T&E initiative to combine At-Sea Combat System element DT&E and OT&E requirements to synergize the resources required for testing in the SSDS MK 2 ships and the Self Defense Test Ship. The LPD-17 class SSDS MK 2 Mod 2 FOT&E was conducted in FY07/FY08 as part of the Enterprise T&E initiative. Live fire, Combat System end-to-end testing was conducted against Anti Ship Cruise Missile targets in the Self Defense Test Ship in FY07/08/09 in the CVN/LHD/LPD configurations. FOT&E of ESSM integration with SSDS MK 2 was initiated in the CVN class in FY08 and will extend through FY14. FOT&E for the CVN class SSDS MK 2 Mod 1B P3I OACE COTS Tech Insertion was conducted in FY09. Future FOT&E includes the LHA 6 SSDS MK 2 Mod 4B configuration with the RAM Block 2 missile and ESSM; the LSD SSDS

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MK 2 Mod 5C configuration with the Phalanx CIWS 1B Baseline 2 system and RAM Block2; and CVN 78 SSDS MK 2 Mod 6C configuration with the Dual Band Radar, SEWIP Block 2 ES, ESSM with JUWL up-link, and RAM Block 2.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: SSDS MK2 Development Test & Evaluation	17.341	21.463	22.102
Articles:	0	0	0

FY 2012 Accomplishments:

For CVN71/LPD24/LHA 6 SSDS MK2 Mod 1B/2B/4B Configurations with RAM Block 2, ESSM integration and Linux OACE:
- Complete Land Based system integration and engineering test at Wallops Island for LPD24;
- Initiate Land Based system integration and engineering tests at Wallops Island for LHA6.

For LSD SSDS MK2 Mod 5C configuration with the Phalanx CIWS Block 1B Baseline 2, RAM Block 2 and OACE equipment (CPS, CDS, and Combat System LAN):
- Conduct Land Based system integration and engineering tests at Wallops Island for LSD50.

For CVN78 SSDS MK2 Mod 6C configuration with Dual Band Radar, Product Line System Track Manager (PL STM) and OACE equipment:
- Complete Land Based system integration and engineering test for CVN78 SSDS MK2 Engineering Software Releases for DBR Common Array Power and Cooling System integration at Raytheon (Andover MA); and for PL STM and OACE equipment at Wallops Island.

FY 2013 Plans:

For CVN71/LPD24/LHA 6 SSDS MK2 Mod 1B/2B/4B Configurations with RAM Block 2 integration and Linux OACE:
- Conduct Land Based system integration and engineering test at Wallops Island for LHA 6;
- Conduct Live Fire At Sea Testing for LHA 6 in the Self Defense Test Ship (SDTS) - Enterprise Test 05 Phase 1.

For LSD SSDS MK2 Mod 5C configuration with the Phalanx CIWS Block 1B Baseline 2, RAM Block 2 and CPS/CDS equipment:
- Complete Engineering Test, Development Test #1, and initiate Combat System Test (CST) at Wallops Island for LSD50.

For CVN78 SSDS MK2 Mod 6C configuration with Dual Band Radar, CEC, UPX-29, PL STM and OACE equipment:
- Initiate Land Based system integration and engineering tests for CVN78 SSDS MK2 Engineering Software Releases for DBR Track and UPX-29 IFF Mode 5 capabilities at Wallops Island. This includes integration with CEC, TPX-42, and PL STM.

FY 2014 Plans:

For CVN71/LPD24/LHA 6 SSDS MK2 Mod 1B/2B/4B Configurations with RAM Block 2 integration and Linux OACE:

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Conduct Land Based DT at Wallops Island for LHA 6 - Conduct Live Fire At Sea Testing for LHA 6 in SDTS - Enterprise Test 05 Phase 2 - Conduct DT/OT (IIIH Phase3 / ET08) and CSSQT on LHA6. For LSD SSDS MK2 Mod 5C configuration with the Phalanx CIWS Block 1B Baseline 2, RAM Block 2 and CPS/CDS equipment: - Complete Engineering Tests, Development Test # 2/Operation Assessment, and Combat System Test (CST) at Wallops Island for LSD50. For CVN78 SSDS MK2 Mod 6C configuration with full Combat System (Dual Band Radar, CEC, TPX-42, PL STM, UPX-29, ESSM, MK29 launcher, RAM Block2, SEWIP Block2, TPX-42, and CV-TSC). - Conduct Land Based system integration and engineering tests for CVN78 SSDS MK2 Engineering Software Releases at Wallops Island for the fire control loop including CEC, UPX-29, ESSM, MK-29 launcher, RAM Block 2 and SEWIP Block 2. This includes missile integration testing of ESSM X-Band JUWL uplink/downlink with the SSDS MK2 MOD6C, and Dual Band Radar. The testing will also includes integration test with CV-TSC, TPX-42, TADIL and Air Control. - Conduct Combat System Certification Testing ashore at the Integrated Combat System Test Facility, NSWC-Dahlgren or SCSC Wallops Island for SSDS MK2-based carrier and amphibious ships combat systems.			
Title: SSDS MK2 Product Development-Advanced Capability Builds (ACB)/Technology Insertion	50.820	59.643	95.130
Articles:	0	0	0
FY 2012 Accomplishments: Perform SSDS MK 2 System Development including integration of government furnished hardware and software to provide Warfighting Capability Improvements via Advanced Capability Builds (ACB), and Open Architecture Computing Environment (OACE) improvements and COTS obsolescence refresh via Technology Insertional Refresh. Product development encompasses studies and analysis, modeling and simulation, system requirements engineering, critical experiments, hardware and software design, software code development, Engineering Development Model (EDM) units, hardware/software integration, factory system integration testing, factory qualification testing, and system pre and post certification support during Combat System Integration Testing, Combat System Certification testing, Development Test and Evaluation (land-based and at-sea). For LSD SSDS MK 2 Mod 5C Tech Insertion, complete Factory System Integration Test and Factory Qualification Testing and initiate pre and post certification support for Land Based engineering tests, development tests, and Combat System certification test. For CVN 78 SSDS MK 2 Mod 6C, complete hardware CDR and software code and integration test for phase 1 of software development for product line system track manager integration, DBR Track capability and OACE (CPS, CDS and Combat System			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
LAN); and complete software IPRs for phase 2 for integration of UPX-29 Mode 5, ESSM with JUWL up-link, RAM Block2, SEWIP Block 2 ES, CV-TSC, TADIL, Air Control, and OACE. This includes the development and integration of product line software components (Product Line System Track Manager/Track Server) within SSDS MK2; the required modifications to existing SSDS MK2 software for implementation of the common software components, and supporting modifications for the new Combat System architecture and interfaces. For SSDS MK2 AMIIP for designated fielded CVNs, conduct integration and test of SSDS MK2 software engineering releases for Link 16 interoperability improvements in support of Strike Group interoperability improvements as part of the AEGIS Wholeness Initiative. For ACB-16/TI-16, conduct planning and analysis and define top level requirements including total system training capability improvements. ***FY 2013 Plans:*** Perform SSDS MK 2 System Development including integration of government furnished hardware and software to provide Warfighting Capability Improvements via Advanced Capability Builds (ACB), and Open Architecture Computing Environment (OACE) improvements and COTS obsolescence refresh via Technology Insertional Refresh. Product development encompasses studies and analysis, modeling and simulation, system requirements engineering, critical experiments, hardware and software design, software code development, Engineering Development Model (EDM) units, hardware/software integration, factory system integration testing, factory qualification testing, and system pre and post certification support during Combat System Integration Testing, Combat System Certification testing, Development Test and Evaluation (land-based and at-sea). For LSD SSDS MK 2 Mod 5C Tech Insertion, conduct pre and post certification support for Land Based engineering tests, development tests, and Combat System certification test. For CVN 78 SSDS MK 2 Mod 6C, complete software code and unit test for phase 1 of software development for DBR track capability integration; and complete software IPRs for the design of phase 2 software for integration of ESSM with JUWL up-link, RAM Block2, SEWIP Block 2 ES, CV-TSC, TADIL and Air Control. Initiate development of operator and maintenance training courses for SSDS MK 2 Mod 6C ACB-12/TI-12. For SSDS MK2 AMIIP for designated fielded carriers, complete software development and integration of SSDS MK2 Link 16 improvements. Transition to Combat System interoperability and certification testing.			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
For ACB-16/TI-16, define and generate documentation for Combat System / SSDS MK2 system requirements for software and hardware development. ***FY 2014 Plans:*** Perform SSDS MK 2 System Development including integration of government furnished hardware and software to provide Warfighting Capability Improvements via Advanced Capability Builds (ACB), and Open Architecture Computing Environment (OACE) improvements and COTS obsolescence refresh via Technology Insertional Refresh. Product development encompasses studies and analysis, modeling and simulation, system requirements engineering, critical experiments, hardware and software design, software code development, Engineering Development Model (EDM) units, hardware/software integration, factory system integration testing, factory qualification testing, and system pre and post certification support during Combat System Integration Testing, Combat System Certification testing, Development Test and Evaluation (land-based and at-sea). For CVN 78 SSDS MK 2 Mod 6C, complete SSDS MK2 software design, code, test, and integration for all software releases for the CVN78 Combat System Light-off baseline. Complete FSIT and FQT and initiate pre and post certification support for Land Based integration and engineering tests. Continue development of operator and maintenance training courses for SSDS MK 2 Mod 6C ACB-12/TI-12. For SSDS MK2 AMIIP for designated fielded carriers, provide software support for shipboard integration and testing. For SSDS MK2 ACB-16/TI-16, initiate full scale development of SSDS MK2 ACB16 warfighting improvements, including integration of Total Ship Training Capabilities (TSTC) improvements, based on planned award of competitive contract. Conduct System Requirements Review (SRR) for ACB-16 software development. For TI-16, conduct SRR, System Functional Review (SFR), and Preliminary Design Review (PDR) for SSDS MK2 TI-16 physical architecture and equipment.			
Accomplishments/Planned Programs Subtotals	68.161	81.106	117.232

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/5239: *SSDS*	54.324	55.371	51.858		51.858	71.423	79.389	66.641	67.826	Continuing	Continuing
• RDTEN/0603382N: *Advanced Combat System Technology*	1.107	1.506	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• RDTEN/0603658N: *Cooperative Engagement*	54.422	56.512	68.312		68.312	66.001	87.766	77.204	78.532	Continuing	Continuing

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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTEN/0603582N: *Combat System Integration*	35.989	41.854	18.040		18.040	24.347	26.975	30.621	33.345	Continuing	Continuing
• RDTEN/0604307N: *Surface Combatant Cmbt Sys Eng*	211.968	260.616	236.528		236.528	195.914	312.413	217.682	243.334	Continuing	Continuing

Remarks

D. Acquisition Strategy

The first SSDS MK 2 system procurements took place under a Cost Plus Award Fee (CPAF) contract in FY99 for the CVN 76, LPD 17, LPD 18 and CVN 69. Follow-on equipment procurements for additional ships of the CVN, LPD and LHD classes were awarded on Firm Fixed Price (FFP) contracts. For those ships that will be receive P3I OACE COTS tech Refresh hardware suites, the initial system Tech Refresh Development occurred under a CPAF type contract, with ship COTS conversion equipment/kits procured on FFP contracts.

A system engineering/design agent and Life Cycle Maintenance Cost Plus Fixed Fee (CPFF) contract was awarded in FY05 and a follow-on cost type contract (with incentives), N00024-08-C-5122, was awarded on 30 Sept 2008, to support SSDS MK 2 system/software maintenance and system upgrades through FY13 including the P3I COTS Tech Insertion. A follow on contract to N00024-08-C-5122 will be awarded on a sole source basis for the FY14-FY17 timeframe for the completion of the development, test, certification of SSDS MK2 (ACB12/TI12) for CVN78, CVN72, and Amphibious Assault Ships. For the SSDS MK2 ACB16 software development, including integration of TSTC software improvements, and the software migration to TI-16, a competitive Combat System Engineering Agent (CSEA) / SSDS Design Agent (DA) contract is planned for award in the third quarter of FY14. For TI-16, the SSDS project will leverage common enterprise COTS Open Architecture Computing Environment (OACE) products for computing, storage, display, network, conversion, and information assurance.

E. Performance Metrics

Requirement Documents
- Ship Self Defense System (SSDS) Operational Requirement Document (ORD) approved April 1995 and validated in 1997.
- SSDS MK2 KPPs were promulgated in OPNAV N76 letter SER N766/1S649367 of 18 Dec 01.
* Subject: Ship Self Defense System (SSDS) Requirement Clarification of Key Performance Parameters (KPP) and Measures of Suitability.
* Included the Interoperability KPP for CVN/LPD/LHD
- SSDS MK2 KPPs were clarified in OPNAV N86 letter SER N86F/7U178266 of 13 Nov 07.
* Subject: Ship Self Defense System (SSDS) Requirement Clarification of Key Performance Parameters (KPPs) and Measures of Suitability and Effectiveness
* Included Force Protection and Survivability KPPs
- Test and Evaluation Master Plan (TEMP No. 1400) For Ship Self Defense System (SSDS) Revision B, 5 Mar 2008.

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Background
- SSDS MK1 OPEVAL was successfully completed June 1997 with a Milestone III approval in March 1998
- SSDS MK2 MOD 1 FOT&E was conducted on CVN 76 in 2005. All KPP thresholds were met. However, the system was assessed as not suitable and not effective by COMOPTEVFOR based on the identification of SSDS MK2 and Combat Systems deficiencies (24major, 37 minor deficiencies).
- SSDS MK 2 Mod 2 FOT&E was conducted in LPD 17-19 in 2007/2008. All KPPs thresholds were met and the system was assessed OPERATIONALLY EFFECTIVE and OPERATIONALLY SUITABLE by COMOPTEVFOR in the 12 Feb 2010 report. 10 major and minor deficiencies were identified against SSDS MK 2. (Also, major Warfare effects deficiencies were identified against the LPD 17 class Combat System).
- SSDS MK 2 Mod 3A FOT&E was conducted in LHD 8 in Feb 2010. All KPPs thresholds were met and the system was assessed OPERATIONALLY EFFECTIVE and OPERATIONALLY SUITABLE by COMOPTEVFOR in the 13 Dec 2010 report. 10 major deficiencies were identified against SSDS MK 2. (Also, major Warfare effects deficiencies were identified against the LHD 8 Combat System).

Status
- The Director, Operational Test and Evaluation (DOT&E) FY 2011 Annual Report identified ship self-defense mission deficiencies based on operational testing. The report is a compilation of multiple reports from Commander, Operational Test Force (COTF) including shipboard testing on the CVN 76, CVN 70, LPD 17, LPD 18, LPD 19, LHD 8; and enterprise testing on the Self-Defense Test Ship (SDTS) and in the Probability of Raid Annihilation (PRA) test-bed.
- SSDS was assessed Operationally Effective and Operationally Suitable for the LPD 17 Class and LHD 8. The Combat Systems (CVN, LPD, LHD) were assessed Not Operationally Effective against several Anti-Ship Cruise Missiles (ASCM). There are system of systems performance issues and design limitations. The issues are divided into four categories: detect, engage, test resources, and threat representation.
- All of the major training deficiencies have been addressed and are pending Verification of Correction of Deficiency (VCD) by COTF upon release of SSDS NTSP (Q3, FY12).
- OPNAV N96 is working with PEO IWS, DASN, and COTF to address the shortfalls in performance testing with the following initiatives:
a. Continue to test and field combat system improvements: High Diver improvements to SPS-48E and CEC; RAM Blk 2; SPQ-9B tracking improvements; SEWIP Blk 2 integration; Evolved Sea Sparrow Missile (ESSM) and North Atlantic Treaty Organization (NATO) Seasparrow Surface Missile System (NSSMS) MK 9 Target Illuminator improvements; and NULKA improvements.
b. Expand the use of Modeling and Simulation. Exploit the PRA test-bed model for system engineering and predictive analysis.

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c. Consider high return self-defense improvements through the POM process.
- Corrective actions will be validated by follow-on testing during the FY13 to FY16 time period: CVN 68 class / LHA 6 Self-Defense Test Ship (SDTS) events; verification of Correction of Deficiencies (VCD); new targets & threat representations; and expansion of PRA test-bed to the CVN 78 and LHA 6 ship classes.

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CSEA / ACB-12 SW Dev	SS/CPIF	RSC (TBD):San Diego, CA	0.000	0.000		0.000		29.774	Dec 2013	-		29.774	0.000	29.774	
Systems Eng/Dev/ Integrate (5110)	SS/CPAF	RSC (5110):San Diego, CA	50.100	33.351	Nov 2011	41.550	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Eng/Dev/ Integrate	SS/CPAF	RSC (5202):Portsmouth, RI	0.000	0.000		1.794	Nov 2012	0.000	Nov 2013	-		0.000	Continuing	Continuing	Continuing
Sys Eng/Safety (Dahlgren)	WR	NSWC DD:Dalhgren, VA	47.795	4.874	Nov 2011	4.480	Oct 2012	10.345	Oct 2013	-		10.345	Continuing	Continuing	Continuing
Systems Engineering (JHU)	SS/FP	JHU/APL:Laurel, MD	46.630	6.666	Apr 2012	7.333	Nov 2012	6.018	Dec 2013	-		6.018	Continuing	Continuing	Continuing
Sys Eng/Training Dev (PHD)	WR	NSWC PHD:Pt Hueneme, CA	19.916	2.407	Nov 2011	0.450	Oct 2012	1.823	Oct 2013	-		1.823	Continuing	Continuing	Continuing
Sys Eng/ILS (CDSA)	WR	CDSA DN:Dam Neck, VA	15.225	2.407	Nov 2011	1.554	Oct 2012	8.795	Oct 2013	-		8.795	Continuing	Continuing	Continuing
Systems Eng/Dev/ Integrate (5100)	SS/CPAF	Gen. Dyn. (5100):Fairfax, VA	2.000	0.000		0.834	Nov 2012	0.536	Dec 2013	-		0.536	Continuing	Continuing	Continuing
Systems Eng	SS/CPAF	Lockheed Martin:Moorestown, NJ	0.000	0.000		0.500	Dec 2012	0.250	Dec 2013	-		0.250	0.000	0.750	
Systems Engineering (Corona)	WR	NSWC Corona:Corona, CA	0.644	0.200	Jan 2012	0.247	Oct 2012	0.000		-		0.000	Continuing	Continuing	Continuing
TI-16 EDM HW Proc / Install	C/CPFF	Various:Various	0.000	0.000		0.000		3.200	Dec 2013	-		3.200	0.000	3.200	
TI-16 HW Devt / Qual Test	C/CPFF	Various:Various	0.000	0.000		0.000		0.000	Dec 2013	-		0.000	0.000	0.000	
ACB-16 SW Dev / CSEA	C/CPIF	TBD:TBD	0.000	0.000		0.000		29.952	Mar 2014	-		29.952	0.000	29.952	
ACB-16 PL / SW Dev	C/CPFF	Various:Various	0.000	0.000		0.000		2.145	Dec 2013	-		2.145	0.000	2.145	
Systems Engineering (IH)	WR	NSWC IH:Indian Head, MD	3.056	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Display Development Kits	SS/FP	Lockheed Martin:St Paul, MN	3.958	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Eng/Dev/ Integrate (5132)	SS/CPAF	RSC (5132):San Diego, CA	20.576	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Award Fees (5132)	SS/CPAF	RSC (5132):San Diego, CA	3.603	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Eng/Dev/ Integrate (5108)	SS/CPAF	RSC (5108):San Diego, CA	98.646	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Eng/Dev/ Integrate (5466)	SS/CPAF	RSC (5466):San Diego, CA	20.353	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Eng/Dev/ Integrate (5104)	SS/CPFF	RSC (5104):San Diego, CA	23.685	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Award Fees (5108)	SS/CPAF	RSC (5108):San Diego, CA	11.208	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Award Fees (5466)	SS/CPAF	RSC (5466):San Diego, CA	2.163	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
RisK Reduction/EMD	Various	Various:Various	76.366	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Misc.	Various	Various:Various	4.513	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	450.437	49.905		58.742		92.838		0.000		92.838			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
QA/RMA	WR	NSWC Corona:Corona, CA	9.954	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	9.954	0.000		0.000		0.000		0.000		0.000			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 2178: *QRCC*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation (PHD)	WR	NSWC PHD:Port Hueneme, CA	74.294	6.517	Nov 2011	6.645	Oct 2012	5.594	Oct 2013	-		5.594	Continuing	Continuing	Continuing
Development Test & Evaluation (SCSC-WI)	WR	SCSC-WI:Wallops Is, VA	39.772	5.944	Jan 2012	4.922	Oct 2012	5.362	Oct 2013	-		5.362	Continuing	Continuing	Continuing
Development Test & Evaluation (JHU)	SS/CPFF	JHU/APL:Laurel, MD	15.122	1.100	Apr 2012	1.637	Nov 2012	2.239	Dec 2013	-		2.239	Continuing	Continuing	Continuing
Development Test & Evaluation (Corona)	WR	NSWC Corona:Corona, CA	3.798	1.070	Jan 2012	1.061	Oct 2012	1.394	Oct 2013	-		1.394	Continuing	Continuing	Continuing
Development Test & Evaluation	SS/CPAF	RSC (5202):St. Pete, FL	0.000	0.000		0.900	Nov 2012	1.516	Dec 2013	-		1.516	Continuing	Continuing	Continuing
DT&E (RAM & ESSM)	WR	NAWC:China Lake, CA	0.000	0.000		1.150	Oct 2012	0.535	Dec 2013	-		0.535	Continuing	Continuing	Continuing
DT&E (RAM & ESSM)	SS/CPFF	RSC(5432):Tucson, AZ	2.180	0.000		0.800	Nov 2012	0.966	Dec 2013	-		0.966	Continuing	Continuing	Continuing
Development Test & Evaluation (5110)	SS/CPFF	RSC(5110):San Diego, CA	10.754	1.000	Nov 2011	0.562	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Development Test & Eval	SS/CPIF	RSC:San Diego, CA	0.000	0.000		0.000		0.000	Nov 2013	-		0.000	0.000	0.000	
Development Test & Evaluation (DD)	WR	NSWC DD:Dahlgren, VA	5.760	0.205	Nov 2011	0.462	Oct 2012	2.568	Oct 2013	-		2.568	Continuing	Continuing	Continuing
Development Test & Evaluation (COTF)	WR	OPTEVFOR:Norfolk, VA	3.250	0.412	Feb 2012	0.310	Oct 2012	0.052	Oct 2013	-		0.052	Continuing	Continuing	Continuing
Development Test & Evaluation (CDSA)	WR	CDSA DN:Dam Neck, VA	1.461	0.205	Nov 2011	0.786	Nov 2012	0.322	Oct 2013	-		0.322	Continuing	Continuing	Continuing
Development Test & Evaluation	SS/CPAF	RSC (5412):Portsmouth, RI	0.000	0.000		1.326	Nov 2012	0.644	Oct 2013	-		0.644	Continuing	Continuing	Continuing
Miscellaneous	Various	Various:Not Specified	5.546	0.000	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	161.937	16.453		20.561		21.192		0.000		21.192			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 2178: *QRCC*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPAF	Not Specified:Not Specified	19.856	1.803	Apr 2012	1.803	Nov 2012	3.202	Dec 2013	-		3.202	Continuing	Continuing	Continuing
		Subtotal	19.856	1.803		1.803		3.202		0.000		3.202			

Remarks

Program Management Support includes three SEAPORT contracts, Alion (01D7013), TASC (01D7026), and SAIC (04D4119). These contracts provide services in the areas of financial management planning, configuration management, test and evaluation, and engineering support.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	642.184	68.161		81.106		117.232		0.000		117.232			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 2178: *QRCC*

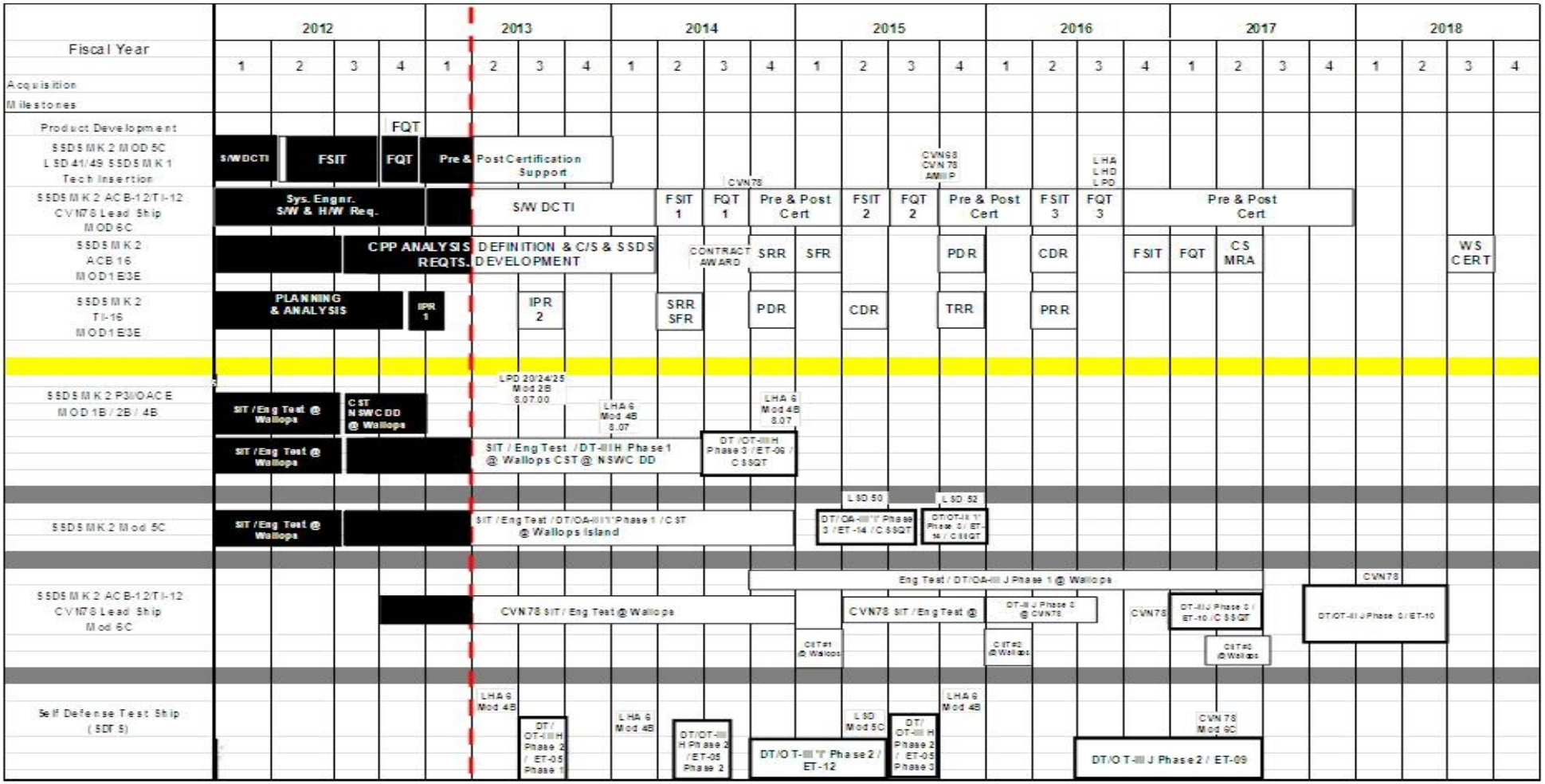


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604755N: *Ship Self Def (Detect & Cntrl)*	**PROJECT** 2178: *QRCC*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2178				
SSDS MK 2 MOD 5C (LSD) - DESIGN/CODE/TEST/INTEGRATION (DCTI)	1	2012	2	2012
SSDS MK 2 MOD 5C (LSD) - FACTORY SYS INTEGRATION TEST (FSIT)	2	2012	3	2012
SSDS MK 2 MOD 5C (LSD) - FACTORY QUALIFICATION TEST (FQT)	4	2012	4	2012
SSDS MK 2 MOD 5C (LSD) - PRE&POST CERT SUPPORT	4	2012	4	2013
SSDS MK 2 MOD 5C (LSD) - T&E - SIT/ENG TEST/CST AT WALLOPS	1	2012	4	2014
SSDS MK 2 MOD 5C (LSD) - T&E - LSD 50 DT/CSSQT	1	2015	3	2015
SSDS MK 2 MOD 5C (LSD) - T&E - LSD 52 DT/OT/CSSQT	3	2015	4	2015
SDTS-SSDS MK 2 MOD 5C T&E DT/OT III I/ET12 PHASE 2	4	2014	2	2015
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - SYS ENG/SW/HW REQTS	1	2012	4	2012
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - SYS ENG/SW/HW REQTS/S/W INTERIM PROGRASS REVIEW (IPR 1)	1	2012	1	2012
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - SYS ENG/SW/HW REQTS-S/W (IPR 2)	2	2012	2	2012
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - SYS ENG/SW/HW REQTS-H/W CDR/ SW (IPR 3)	3	2012	3	2012
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - DCTI	1	2013	1	2014
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - DCTI S/W (IPR 4)	1	2013	1	2013
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - DCTI S/W (IPR 5)	2	2013	2	2013
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - DCTI S/W (IPR 6)	3	2013	3	2013
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 -DCTI S/W (IPR 7)	1	2014	1	2014
SSDS MK2 MOD 6C - CVN 68 ACB12/TI12 - FACTORY SYS INTEGRATION TEST (FSIT 1)	2	2014	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 2178: *QRCC*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
SSDS MK2 MOD 6C - CVN 68 ACB12/TI12 - FACTORY QUALIFICATION TEST (FQT 1)	3	2014	3	2014
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - PRE & POST CERT SUPPORT	4	2014	1	2015
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12-T&E-SIT/ENG TEST AT WALLOPS	4	2012	4	2014
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12-T&E ET/DT/OA III J AT WALLOPS	4	2014	2	2017
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12-T&E CST # 1 AT WALLOPS	1	2015	1	2015
SSDS MK2 MOD 6C - CVN68/CVN78 AMIIP ACB12/TI12-FACTORY SYS INTEGRATION TEST (FSIT 2)	2	2015	2	2015
SSDS MK2 MOD 6C - CVN68/CVN78 AMIIP ACB12/TI12-FACTORY QUALIFICATION TEST (FQT 2)	3	2015	3	2015
SSDS MK2 MOD 6C - CVN68./CVN78 AMIIP ACB12/TI12 - PRE & POST CERT SUPPORT	4	2015	1	2016
SSDS MK2 MOD 6C - CVN 78 ACB12/TI12 - T&E-CST # 2 AT WALLOPS	1	2016	1	2016
SSDS MK 2 MOD 6C-CVN78 ACB12/TI12/T&E DT III J PHASE 3 (ON CVN78)	1	2016	3	2016
SDTS SSDS MK 2 MOD 6C-CVN78 ACB12/TI12 T&E DT/OT III J/ET09/PHASE 2	3	2016	2	2017
SSDS MK 2 MOD 6C-CVN78 ACB12/TI12-T&E DT III J PHASE 3/ET10/CSSQT	1	2017	2	2017
SSDS MK 2 MOD 6C-CVN78 ACB12/TI12-T&E CST #3 AT WALLOPS	1	2017	3	2017
SSDS MK 2 MOD 6C-CVN78 ACB12/TI12-T&E DT/OT III J PHASE 3/ET-10	3	2017	2	2018
LHA/LHD/LPD SSDS MK 2 ACB12/TI12-FACTORY SYS INTEGRATION TEST (FSIT3)	2	2016	2	2016
LHA/LHD/LPD SSDS MK 2 ACB12/TI12-FACTORY QUALIFICATION TEST (FQT3)	3	2016	3	2016
LHA/LHD/LPD SSDS MK 2 ACB12/TI12-PRE & POST CERT SPT	4	2016	1	2017
SSDS MK 2 MOD 1E/3E/ACB 16/CPP ANALYSIS/DEFINITION & C/S SSDS REQTS DEVELOPMENT	1	2012	1	2014
SSDS MK 2 MOD 1E/3E/ACB 16/CONTRACT AWARD	2	2014	2	2014
SSDS MK 2 MOD 1E/3E/ACB 16/SRR	4	2014	4	2014
SSDS MK 2 MOD 1E/3E/ACB 16/SFR	1	2015	1	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604755N: *Ship Self Def (Detect & Cntrl)*	**PROJECT** 2178: *QRCC*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SSDS MK 2 MOD 1E/3E/ACB 16/PDR	4	2015	4	2015
SSDS MK 2 MOD 1E/3E/ACB 16/CDR	2	2016	2	2016
SSDS MK 2 MOD 1E/3E/ACB 16/FACTORY SYS INTEGRATION TEST (FSIT)	4	2016	4	2016
SSDS MK 2 MOD 1E/3E/ACB 16/FACTORY QUALIFICATION TEST (FQT)	1	2017	1	2017
SSDS MK 2 MOD 1E/3E/ACB 16/COMBAT SYSTEM (C/S) MATERIAL READINESS ASSESSMENT (MRA)	2	2017	2	2017
SSDS MK 2 MOD 1E/3E/ACB 16/WARFARE SYSTEM (WS) CERT	3	2018	3	2018
SSDS MK 2 MOD 1E/3E/TI 16/PLANNING & ANALYSIS	1	2012	3	2012
SSDS MK 2 MOD 1E/3E/TI 16 HW IPR # 1	4	2012	4	2012
SSDS MK 2 MOD 1E/3E/TI 16 HW IPR # 2	3	2013	3	2013
SSDS MK 2 MOD 1E/3E/TI 16 SRR/SFR	2	2014	2	2014
SSDS MK 2 MOD 1E/3E/TI 16 HW PDR	4	2014	4	2014
SSDS MK 2 MOD 1E/3E/TI 16HW CDR	2	2015	2	2015
SSDS MK 2 MOD 1E/3E/TI 16/HW TRR	4	2015	4	2015
SSDS MK 2 MOD 1E/3E/TI 16/PRODUCTION READINESS REVIEW (PRR)	2	2016	2	2016
SSDS MK 2 P3I OACE MOD 2B 8.07 (LPD 20/24/25) T&E-SIT/ENG TEST AT WI	1	2012	2	2012
SSDS MK 2 P3I OACE MOD 2B 8.07 (LPD 20/24/25) CST AT NSWC DD	3	2012	4	2012
SSDS MK 2 P3I OACE MOD 4B (LHA6) T&E-SIT/ENG TEST/DT-III H PHASE 1 AT WI/CST @ NSWC DD	1	2012	1	2014
SSDS MK 2 P3I OACE MOD 4B (LHA6) T&E DT/OT III I/ET06/CSSQT	3	2014	4	2014
SDTS-SSDS MK 2 P3I OACE MOD 4B (LHA6) T&E DT/OT/ET05 PHASE 1	3	2013	3	2013
SDTS-SSDS MK 2 P3I OACE MOD 4B (LHA6) T&E DT/OT/ET05 PHASE 2	2	2014	3	2014
SDTS-SSDS MK 2 P3I OACE MOD 4B (LHA6) T&E DT/OT III H/ET05 PHASE 3	3	2015	3	2015
SSDS MK2 MOD 6C-CVN78 ACB12/TI12-SIT/ENG TEST AT WALLOPS	2	2015	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3172: *Joint Non-Lethal Weapons*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3172: *Joint Non-Lethal Weapons*	19.948	1.308	5.379	10.849	-	10.849	5.141	2.658	2.682	2.725	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Funding for Integrated Swimmer Defense (ISD) moved to project 3306 starting in FY12.

A. Mission Description and Budget Item Justification

The scope of this project is to provide the fleet Expeditionary (specifically the Maritime Expeditionary Security Force) units with the capability of a portable maritime system to engage contacts of interest once they have been detected. Long Range Ocular Interruption (LROI) consists of efforts to develop and demonstrate a long range laser warning and dazzle system for use in maritime environment. The device is designed to issue clear and unambiguous optically dazzling warnings at long ranges (in excess of 1000m) to personnel, vehicles, vessels, (and potentially aircraft) approaching Navy, Coast Guard, or Army ships, ground assets, and critical maritime infrastructure.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Non-Lethal Weapons Development	0.408	3.979	8.849
Articles:	0	0	0
FY 2012 Accomplishments: Support program planning for technology investment resulting from the Analysis of Alternatives (AoA). Develop non-lethal, vessel-entanglement technologies to stop small and medium sized vessels in response to CENTCOM JUONS CC-0371. Effort will involve design and fabrication of launchers and payloads (i.e. nets used for entanglement of vessels' propellers). ***FY 2013 Plans:*** Support design refinement for the Long Range Ocular Interrupter (LROI) and other systems resulting from the Analysis of Alternatives (AoA). ***FY 2014 Plans:*** Support design refinement for the Long Range Ocular Interrupter (LROI) and other systems resulting from the Analysis of Alternatives (AoA).			
Title: Non-Lethal Weapons Testing	0.900	1.400	2.000
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3172: *Joint Non-Lethal Weapons*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Complete development of Request For Proposal (RFP) package to support system production Post Milestone C. Also plan to test non-lethal, vessel-entanglement technologies on various representative vessels. ***FY 2013 Plans:*** Test Long Range Ocular Interrupter (LROI) components and other Non-lethal capabilities resulting from Analysis of Alternatives (AoA). ***FY 2014 Plans:*** Test Long Range Ocular Interrupter (LROI) components and other Non-lethal capabilities resulting from Analysis of Alternatives (AoA).			
Accomplishments/Planned Programs Subtotals	1.308	5.379	10.849

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/8128: *NCW Forces Active*	0.600	0.600	0.600		0.600	2.016	5.496	7.335	8.245	Continuing	Continuing

Remarks

D. Acquisition Strategy

The acquisition strategy includes the assessment of mature technologies, strategies and potential system capabilities matched against identified capability gaps that can be used in a flexible response posture. Selected capabilities will be based on AoA and best material approach to meet expeditionary and afloat force protection requirements. Technology development will occur in FY12-13 culminating in an Engineering and Manufacturing Development (EMD) phase commencing in FY14. Successful capabilities will require cross-integration onto existing Navy platforms and ensure compatibility/interoperability within the expeditionary context. Multiple solutions could be output based on overall satisfaction of technical and operational requirements, acquisition life cycle costs, and forecasted procurement quantity needs.

E. Performance Metrics

Complete material solution analysis and technical development strategy. Conduct Capability Development Document (CDD) process.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3172: *Joint Non-Lethal Weapons*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering	WR	NSWC Dahlgren:Dahlgren VA	5.956	0.500	Feb 2012	2.779	Feb 2013	7.849	Feb 2014	-		7.849	Continuing	Continuing	Continuing
System Engineering	WR	NSWC Port Hueneme:Port Hueneme CA	0.400	0.228	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
System Engineering	WR	NSWC Crane:Crane IN	0.400	0.180	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	6.756	0.908		2.779		7.849		0.000		7.849			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services (NSWC)	WR	NSWC Dahlgren:Dahlgren, VA	0.000	0.000		1.000	Feb 2013	1.000	Feb 2014	-		1.000	0.000	2.000	
Program Management	WR	NUWC Newport:Newport, RI	2.857	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Engineering Services (NSWC)	WR	NSWC Panama City:Panama City, FL	1.200	0.000		0.000		0.000		-		0.000	0.000	1.200	
		Subtotal	4.057	0.000		1.000		1.000		0.000		1.000			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	WR	NSWC Carderock:Bethesda MD	0.300	0.000		0.000		0.000		-		0.000	0.000	0.300	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3172: *Joint Non-Lethal Weapons*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	MIPR	Military Sealift Command:Washington DC	2.200	0.000		0.000		0.000		-		0.000	0.000	2.200	
Test and Evaluation	WR	COMOPTEVFOR:Norfolk VA	3.325	0.100	Feb 2012	1.000	Feb 2013	1.000	Feb 2014	-		1.000	Continuing	Continuing	Continuing
		Subtotal	5.825	0.100		1.000		1.000		0.000		1.000			

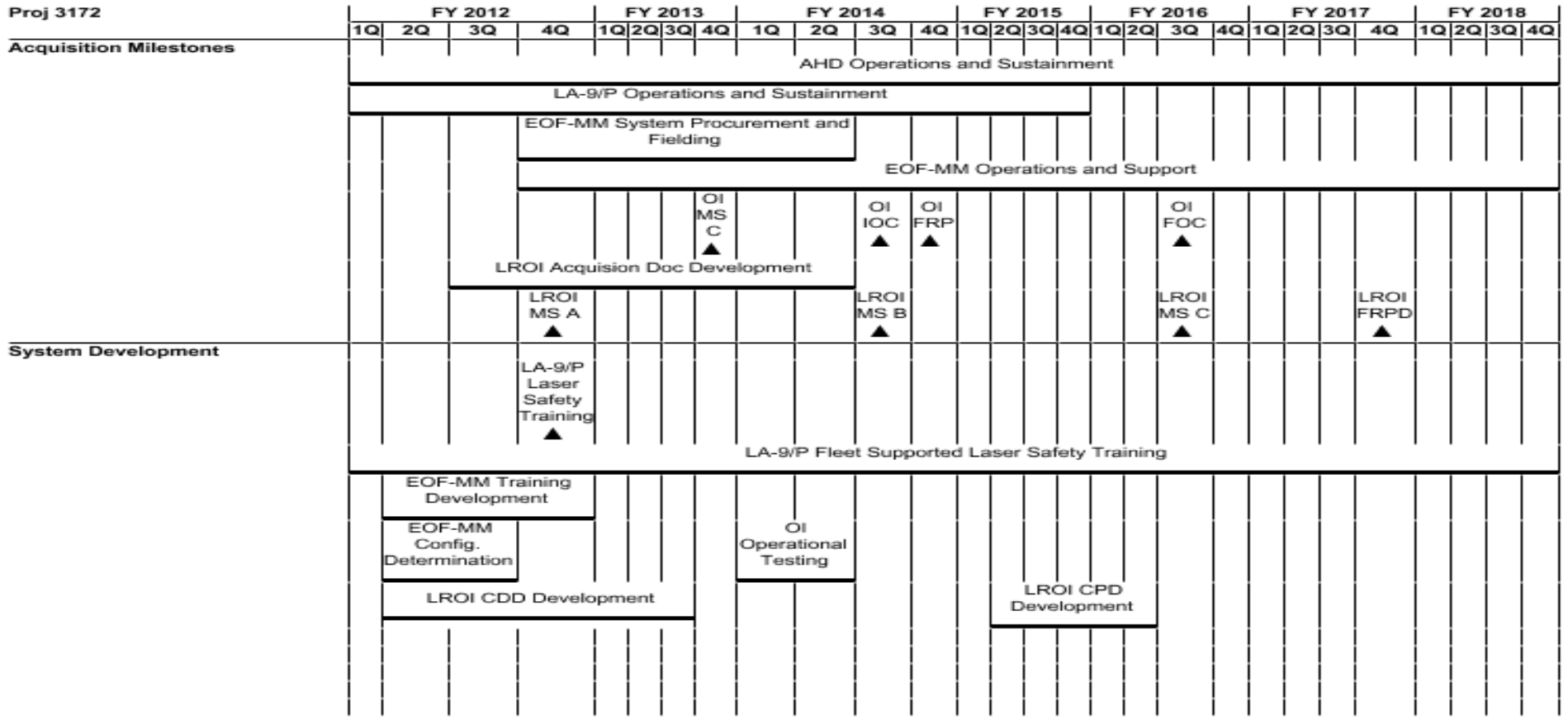
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	WR	NSWC Dahlgren:Dahlgren VA	3.292	0.300	Feb 2012	0.600	Feb 2013	1.000	Feb 2014	-		1.000	Continuing	Continuing	Continuing
DAWDF	Various	Not Specified:Not Specified	0.018	0.000		0.000		0.000		-		0.000	0.000	0.018	
		Subtotal	3.310	0.300		0.600		1.000		0.000		1.000			

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	19.948	1.308		5.379		10.849		0.000		10.849			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3172: *Joint Non-Lethal Weapons*



2014DON - 0604755N - 3172

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3172				
Acquisition Milestones: Acoustic Hailing Devices (AHD)	1	2012	4	2018
Acquisition Milestones: LA-9/P Handheld Laser Dazzlers Operations and Sustainment	1	2012	4	2015
Acquisition Milestones: Escalation of Force Mission Module (EOF-MM) System Procurement and Fielding	4	2012	2	2014
Acquisition Milestones: Escalation of Force Mission Module (EOF-MM) Operations and Support	4	2012	4	2018
Acquisition Milestones: Ocular Interrupter (OI) MS-C	4	2013	4	2013
Acquisition Milestones: Ocular interrupter (OI) FRP	4	2014	4	2014
Acquisition Milestones: Ocular Interrupter (OI) IOC	3	2014	3	2014
Acquisition Milestones: Ocular Interrupter (OI) FOC	3	2016	3	2016
Acquisition Milestones: Long-Range Ocular Interrupter (LROI) TES/TEMP/TDS/SEP/ Acq Strat Development	3	2012	2	2014
Acquisition Milestones: Long-Range Ocular Interrupter (LROI) MS A	4	2012	4	2012
Acquisition Milestones: Long-Range Ocular Interrupter (LROI) MS B	3	2014	3	2014
Acquisition Milestones: Long-Range Ocular Interrupter (LROI) MS C	3	2016	3	2016
Acquisition Milestones: Long-Range Ocular Interrupter (LROI) MS FRPD	4	2017	4	2017
System Development: LA-9/P Handheld Laser Dazzlers Laser Safety Training	4	2012	4	2012
System Development: LA-9/P Handheld Laser Dazzlers Fleet Supported Laser Safety Training	1	2012	4	2018
System Development: Escalation of Force Mission Module (EOF-MM) Training Development	2	2012	4	2012
System Development: Escalation of Force Mission Module (EOF-MM) Config. Determination	2	2012	3	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3172: *Joint Non-Lethal Weapons*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
System Development: Ocular Interrupter (OI) Operational Testing	1	2014	2	2014
System Development: Long-Range Ocular Interrupter (LROI) CDD Development	2	2012	3	2013
System Development: Long-Range Ocular Interrupter (LROI) CPD Development	2	2015	2	2016

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3306: *Integrated Swimmer Defense (ISD)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3306: *Integrated Swimmer Defense (ISD)*	0.000	1.625	1.177	1.198	-	1.198	1.219	1.242	1.265	1.285	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Funding moved from project 3172 starting in FY12.

A. Mission Description and Budget Item Justification

The scope of this project is to provide the fleet Expeditionary (specifically the Maritime Expeditionary Security Force) units with the capability of a portable maritime Integrated Swimmer Defense (ISD) system to engage combat swimmers/divers or unknown individuals underwater once they have been detected. The ISD program combines the detection and engagement operations in order to complete the swimmer defense picture for the fleet. The objective of the integrated swimmer defense system (ISD) is the development and deployment of an integrated system capable of being deployed by the expeditionary harbor security units (primarily the Maritime Expeditionary Security Force). ISD will be designed to detect, track, classify, warn, deter and neutralize divers' and swimmers' threats. ISD is important to protecting high value assets within harbors from the increasing threat of waterborne terrorist or combatant attacks.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Integrated Swimmer Defense	1.625	1.177	1.198
Articles:	0	0	0
FY 2012 Accomplishments: Development of project documentation (P-SPEC, Market Survey, CPD, etc). Supports preparation for Milestone C decision.			
FY 2013 Plans: Continue development of project documentation. Finalize P-SPEC, gain CPD approval, release/award Test Article contracts.			
FY 2014 Plans: Receive Test Articles and begin integrated Test & Evaluation. Gain TEMP approval.			
Accomplishments/Planned Programs Subtotals	1.625	1.177	1.198

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3306: *Integrated Swimmer Defense (ISD)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/8128: *ISD*	0.000	0.780	1.842		1.842	1.967	3.917	4.426	4.419	Continuing	Continuing

Remarks

D. Acquisition Strategy

The acquisition strategy includes the integration of swimmer/diver detection sensors and using software to fuse the sensor track data thereby creating an end to end combat system capability for swimmer/diver defense. The ISD program of record system configuration will be produced through an Acquisition Category (ACAT) program to procure component systems needed to bring the performance of the UOES prototypes up to the full production requirements.

E. Performance Metrics

User Operational Evaluation Systems (UOES) will culminate defined set of system capabilities and limitations. Define level specifications and technical data packages.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3306: *Integrated Swimmer Defense (ISD)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware/Software Development	WR	NUWC:Keyport	0.000	0.200	Feb 2012	0.300	Feb 2013	0.300	Feb 2014	-		0.300	Continuing	Continuing	Continuing
Hardware/Software Development - FNC	WR	NUWC Newport:Newport RI	0.000	0.100	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Hardware/Software Development - FNC Detection and Targeting	WR	NUWC Newport:Newport RI	0.000	0.125	Feb 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	0.000	0.425		0.300		0.300		0.000		0.300			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services	WR	NUWC:Keyport	0.000	0.679	Feb 2012	0.295	Feb 2013	0.295	Feb 2014	-		0.295	Continuing	Continuing	Continuing
		Subtotal	0.000	0.679		0.295		0.295		0.000		0.295			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	WR	NUWC:Keyport	0.000	0.290	Feb 2012	0.300	Feb 2013	0.300	Feb 2014	-		0.300	Continuing	Continuing	Continuing
		Subtotal	0.000	0.290		0.300		0.300		0.000		0.300			

Management Services ($ in Millions)

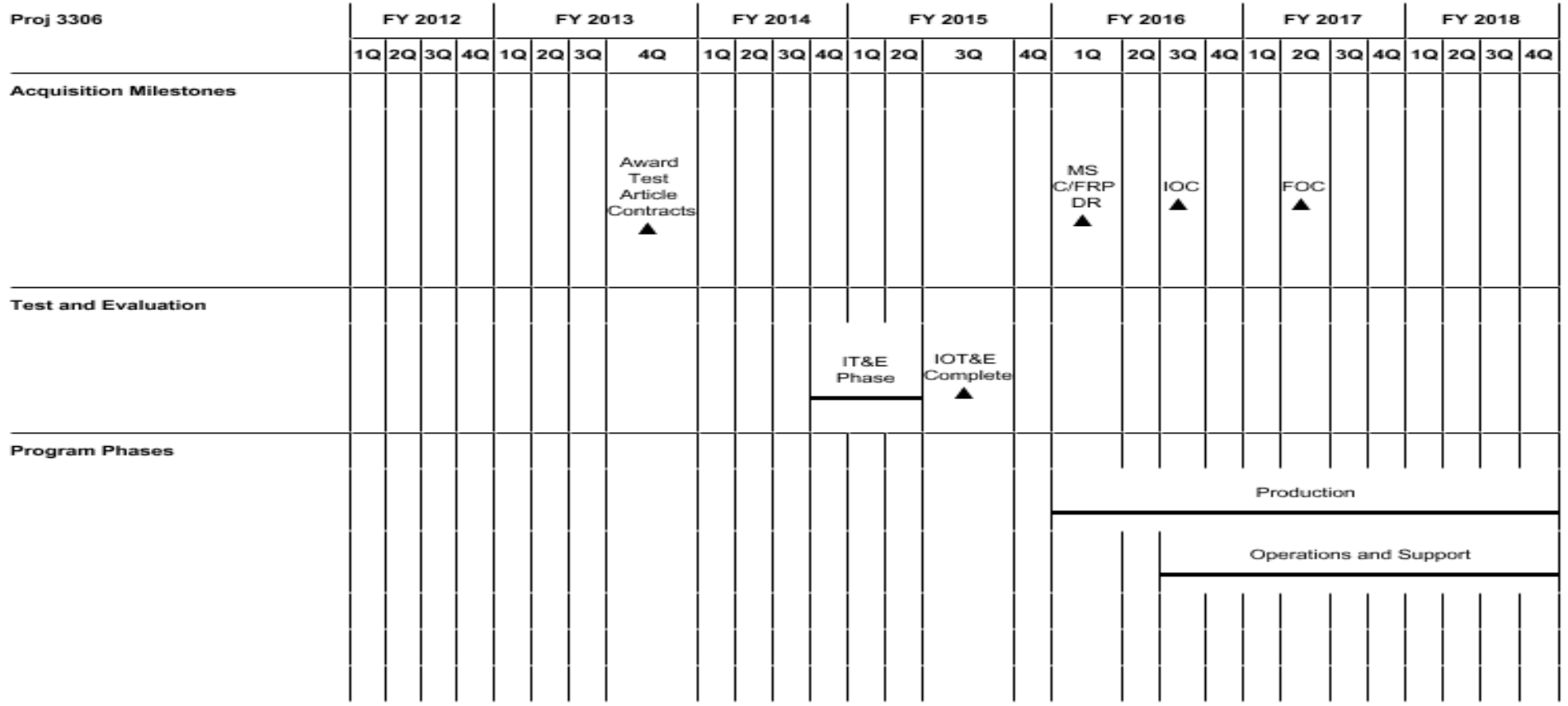
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	WR	NUWC:Keyport	0.000	0.231	Feb 2012	0.282	Feb 2013	0.303	Feb 2014	-		0.303	Continuing	Continuing	Continuing
		Subtotal	0.000	0.231		0.282		0.303		0.000		0.303			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3306: *Integrated Swimmer Defense (ISD)*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	1.625		1.177		1.198		0.000		1.198			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3306: *Integrated Swimmer Defense (ISD)*



2014DON - 0604755N - 3306

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604755N: *Ship Self Def (Detect & Cntrl)*	**PROJECT** 3306: *Integrated Swimmer Defense (ISD)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3306				
Acquisition Milestones: IOC	3	2016	3	2016
Acquisition Milestones: MS C/FRPDR	1	2016	1	2016
Acquisition Milestones: FOC	2	2017	2	2017
Acquisition Milestones: Award Test Article Contracts	4	2013	4	2013
Test and Evaluation: IT&E Phase	4	2014	2	2015
Test and Evaluation: IOT&E Complete	3	2015	3	2015
Program Phases: Production	1	2016	4	2018
Program Phases: Operations and Support	3	2016	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3358: *SSDS Training Improvement Program*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3358: *SSDS Training Improvement Program*	0.000	0.000	0.000	1.081	-	1.081	1.120	1.130	1.093	0.600	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

The SSDS Training Improvement Program project (PU 3358) effort is dependent on the execution of the SSDS MK2 ACB-16 / TI-16 effort under PU 2178 (QRCC). PU 3358 funds the integration of Total Ship Training Capability (TSTC) improvements into the SSDS MK2 ACB-16/TI-16 development baseline. The integrated SSDS MK2 TSTC improvements will be included in the SSDS MK2 ACB-16/TI-16 documentation, testing and certification. The planning schedule for SSDS MK2 ACB-16 and TI-16 is documented in QRCC Project (PU 2178).

A. Mission Description and Budget Item Justification

The SSDS Training Improvement Program project is for the integration of Total Ship Training Capability (TSTC) improvements into the SSDS MK2 Advanced Capability Build (ACB-16) and Technology Insertion (TI-16) development efforts. The TSTC improvements encompass physical and functional upgrades to the existing SSDS MK2 onboard training capabilities implemented with Battle Force Tactical Trainer (BFTT). Planned TSTC improvements include a common method for integrated control of simulated air and surface vehicles including Identification Friend and Foe (IFF) and SSDS MK2 Combat System LAN upgrade support for an Integrated Air Asset Simulation / Stimulation unit.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: New Accomplishment/Planned Program Entry	0.000	0.000	1.081
Articles:			0
FY 2014 Plans: For SSDS MK2 ACB-16/TI-16, initiate full scale development of SSDS MK2 ACB16 warfighting improvements, including integration of Total Ship Training Capabilities (TSTC) improvements, based on planned award of competitive contract. Conduct System Requirements Review (SRR) for ACB-16 software development. For TI-16, conduct SRR, System Functional Review (SFR), and Preliminary Design Review (PDR) for SSDS MK2 TI-16 physical architecture and equipment.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	1.081

C. Other Program Funding Summary ($ in Millions)

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3358: *SSDS Training Improvement Program*

C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

For the SSDS MK2 ACB16 software development including the integration of TSTC software improvements and the software migration to TI-16, a competitive contract is planned for award in the second quarter of FY14 for a Combat System Engineering Agent (CSEA) and SSDS Design Agent (DA). For TI-16, the SSDS project will leverage common enterprise COTS Open Architecture Computing Environment (OACE) products for computing, storage, display, network, conversion, and information assurance.

E. Performance Metrics

Requirement Documents
- Ship Self Defense System (SSDS) Operational Requirement Document (ORD) approved April 1995 and validated in 1997.
- SSDS MK2 KPPs were promulgated in OPNAV N76 letter SER N766/1S649367 of 18 Dec 01.
* Subject: Ship Self Defense System (SSDS) Requirement Clarification of Key Performance Parameters (KPP) and Measures of Suitability.
* Included the Interoperability KPP for CVN/LPD/LHD
- SSDS MK2 KPPs were clarified in OPNAV N86 letter SER N86F/7U178266 of 13 Nov 07.
* Subject: Ship Self Defense System (SSDS) Requirement Clarification of Key Performance Parameters (KPPs) and Measures of Suitability and Effectiveness
* Included Force Protection and Survivability KPPs
- Test and Evaluation Master Plan (TEMP No. 1400) For Ship Self Defense System (SSDS) Revision B, 5 Mar 2008.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604755N: *Ship Self Def (Detect & Cntrl)*	PROJECT 3358: *SSDS Training Improvement Program*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ACB-16 SW Dev / CSEA	C/CPIF	TBD:TBD	0.000	0.000		0.000		1.081	Mar 2014	-		1.081	Continuing	Continuing	Continuing
Sys Eng / Training Dev (PHD)	C/BA	NSWC - PHD:Pt. Hueneme, CA	0.000	0.000		0.000		0.000	Oct 2013	-		0.000	Continuing	Continuing	Continuing
Sys Eng / Safety - Dahlgren	C/BA	NSWC - DD:Dahlgren, VA	0.000	0.000		0.000		0.000	Oct 2013	-		0.000	Continuing	Continuing	Continuing
Sys Eng / ILS - (CDSA - DN)	C/BA	CDSA - DN:Dam Neck, VA	0.000	0.000		0.000		0.000	Oct 2013	-		0.000	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		1.081		0.000		1.081			

Remarks

The SSDS Training Improvement Program project (PU 3358) effort is dependent on the execution of the SSDS MK2 ACB-16 / TI-16 effort under PU 2178 (QRCC). PU 3358 funds the integration of Total Ship Training Capability (TSTC) improvements into the SSDS MK2 ACB-16/TI-16 development baseline. The integrated SSDS MK2 TSTC improvements will be included in the SSDS MK2 ACB-16/TI-16 documentation, testing and certification. The planning schedule for SSDS MK2 ACB-16 and TI-16 is documented in QRCC Project (PU 2178).

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		1.081		0.000		1.081			

Remarks

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	590.348	20.041	64.079	50.209	-	50.209	82.731	109.465	70.286	173.386	Continuing	Continuing
0167: *5in Rolling Airframe Missile*	202.339	1.250	1.297	1.321	-	1.321	1.346	1.343	1.369	1.393	Continuing	Continuing
0173: *NATO Sea Sparrow*	363.226	10.791	32.005	48.888	-	48.888	81.385	108.122	68.917	153.993	Continuing	Continuing
3342: *Griffin Missile*	24.783	8.000	30.777	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	63.560
9999: *Congressional Adds*	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	18.000	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program element provides funding for the development of systems that fulfill a portion of the third phase of the Ship Self Defense: Engage Hard Kill. Development in this line will focus on hard kill capabilities in which missiles are used to intercept incoming Anti-Ship Cruise Missiles (ASCM). Missile and system improvements necessary to meet their requirements are being addressed via NATO SEASPARROW Missile System (NSSMS) (0173), Rolling Airframe Missile (RAM) (0167), Phalanx CIWS SeaRAM (9853A), Griffin, Javelin and Spike missile (3342). Missile improvements include improved kinematic performance plus advanced seeker and low elevation fusing/warhead capability improvements. System improvements include incorporation of Phalanx detection capability into RAM system (SeaRAM), future concepts studies and self-destructing ammunition, and Future Phalanx Next Generation Improvements. New system developments include integration of Griffin missile into Patrol Coastal (PC) and Littoral Combat Ship Missile Module, and development and/or qualification of shoulder launched missile system.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	6.631	64.079	30.412	-	30.412
Current President's Budget	20.041	64.079	50.209	-	50.209
Total Adjustments	13.410	0.000	19.797	-	19.797
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	13.573	0.000			
• SBIR/STTR Transfer	-0.163	0.000			
• Program Adjustments	0.000	0.000	19.924	-	19.924
• Rate/Misc Adjustments	0.000	0.000	-0.127	-	-0.127

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604756N: *Ship Self Def (Engage: Hard Kill)*

Change Summary Explanation

FY 2012 Reprogramming increase provides $8.0M funding for Patrol Coastal (PC) Ship and Littoral Combat Ship Missile Module integration with Griffin Missile System (GMS) and $5.6M for Stalker.

FY 2014 increase provided for ESSM Blk 2 Upgrade

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0167: *5in Rolling Airframe Missile*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0167: *5in Rolling Airframe Missile*	202.339	1.250	1.297	1.321	-	1.321	1.346	1.343	1.369	1.393	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Rolling Airframe Missile (RAM) program is an International cooperative program with the government of the Federal Republic of Germany. The purpose of this program is to develop, test, and field a surface-to-air self-defense system utilizing a dual mode, passive Radio Frequency/Infrared RAM. The baseline system (Block 0) provides a self-defense system to counter anti-ship cruise missiles (ASCM). RAM Block 0/1 provide defense capability against active and passive anti-ship missiles, very low altitude missiles, and maneuvering missiles through the utilization of passive Radio Frequency and Infrared seekers and a maritime optimized fuse. The RAM Block 1A software update and the Mk 49 MOD 3 Launcher upgrade program provide an additional asymmetric capability against helicopters, aircraft and surface craft. The RAM Block 2 upgrade program is a Cooperative requirement of the U.S. and Federal Republic of Germany, as agreed to in an International Memorandum of Understanding (MOU), and allows RAM to counter emerging highly maneuverable ASCM threats utilizing advanced seeksers while maintaining all the proven capabilities of RAM Block 0/1/1A's accurate terminal guidance, proven lethality, and no shipboard post launch dependence. Funding supports formal Developmental and Operational Testing (DT/OT) scheduled through FY16, data analysis, operational/test driven studies, support of Combat System performance analysis and identification of operationally relevant improvements.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Rolling Airframe Missile Block 2 Development and Test	1.135	1.218	1.242
Articles:	0	0	0
FY 2012 Accomplishments: Funded Block 2 test and associated efforts to acheive Milestone C and Low Rate Inital Production decision.			
FY 2013 Plans: Fund Block 2 Integrated Operational Test and Evalustion (Development and Operational) IT-C1 and IT-C3 testing, analysis, incorporation of any changes and associated efforts to acheive Inital Operational Capability decision.			
FY 2014 Plans: Funds ongoing Integrated Operational Test and Evalustion (Development and Operational) IT-C2 testing, testing, analysis, incorporation of any changes and associated efforts to acheive Full Rate Production decision.			
Title: Rolling Airframe Missile Block 2 Travel	0.115	0.079	0.079

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0167: *5in Rolling Airframe Missile*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:	0	0	0
FY 2012 Accomplishments: Funded Program Office travel to support program and testing efforts as required by program schedule.			
FY 2013 Plans: Funds Program Office travel to support program/testing as required by program schedule and in accordance with travel reduction mandate.			
FY 2014 Plans: Funds Program Office travel to support program/testing as required by program schedule and in accordance with travel reduction mandate.			
Accomplishments/Planned Programs Subtotals	1.250	1.297	1.321

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN 5238: *RAM*	3.128	1.185	0.491		0.491	0.764	1.769	1.546	1.571	Continuing	Continuing
• WPN 2242: *RAM*	66.197	66.769	67.596		67.596	82.878	84.296	85.757	106.798	Continuing	Continuing

Remarks

D. Acquisition Strategy

The RAM Program uses directed sole source contracts with Raytheon Missile Systems Company, Tucson, AZ.

E. Performance Metrics

Successfully achieve Milestone C. Successfully achieve Development/Operational Milestones.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0167: *5in Rolling Airframe Missile*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPFF	Raytheon:Tucson/ Louisville	7.434	0.000		0.000		0.000		-		0.000	0.000	7.434	
Primary Hardware Dev Support	WR	China Lake:CA	1.266	0.000		0.000		0.000		-		0.000	0.000	1.266	
Block 1 Eng/Interface Support	SS/CPFF	Raytheon:Tucson/ Louisville	0.400	0.000		0.000		0.000		-		0.000	0.000	0.400	
Block 1 MOD 3 Interface Support	C/CPFF	JHU/APL:MD	0.981	0.000		0.000		0.000		-		0.000	0.000	0.981	
Block 2 Upgrade	SS/CPAF	Raytheon:Tucson/ Louisville	134.529	0.000		0.000		0.000		-		0.000	0.000	134.529	
Block 2 Upgrade	WR	China Lake/ NRL/ Dahlgren:CA/VA	15.244	0.000		0.000		0.000		-		0.000	0.000	15.244	
Block 2 Upgrade	C/CPFF	JHU/APL:md	1.300	0.000		0.000		0.000		-		0.000	0.000	1.300	
Block 2 Product Support	WR	China Lake/NRL/ Dahlgren:CA/VA	3.577	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	164.731	0.000		0.000		0.000		0.000		0.000			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies and Analyses	Various	various:various	1.210	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	1.210	0.000		0.000		0.000		0.000		0.000			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	C/CPFF	Raytheon:Tucson	13.787	1.083	Jan 2012	0.736	Nov 2012	0.646	Nov 2013	-		0.646	0.000	16.252	
FOT&E	WR	China Lake/PHD:CA/ CA	4.674	0.000		0.000		0.000		-		0.000	0.000	4.674	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0167: *5in Rolling Airframe Missile*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	WR	China Lake/PHD:CA/CA	11.059	0.052	Jan 2012	0.200	Dec 2012	0.306	Dec 2013	-		0.306	Continuing	Continuing	Continuing
Miscellaneous	Various	various:various	5.733	0.000		0.000		0.000		-		0.000	0.000	5.733	
Test Support	C/CPFF	JHU/APL:MD	0.000	0.000		0.282	Mar 2013	0.290	Dec 2013	-		0.290	0.000	0.572	
		Subtotal	35.253	1.135		1.218		1.242		0.000		1.242			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	Allot	Program Office:VA	0.998	0.115	Jan 2012	0.079	Oct 2012	0.079	Oct 2013	-		0.079	Continuing	Continuing	Continuing
Defense Acquisition Workforce Development Fund	Various	various:various	0.147	0.000		0.000		0.000		-		0.000	0.000	0.147	
		Subtotal	1.145	0.115		0.079		0.079		0.000		0.079			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	202.339	1.250		1.297		1.321		0.000		1.321			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0167: *5in Rolling Airframe Missile*

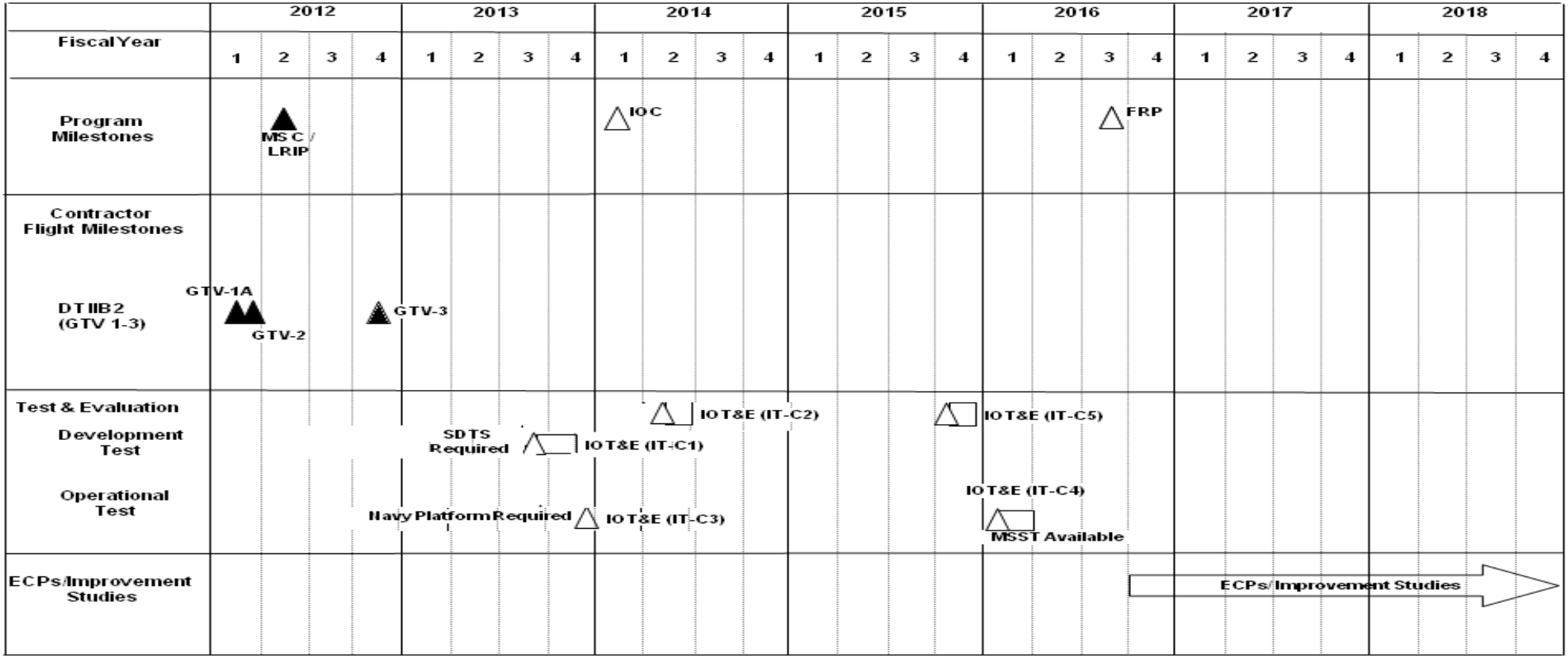


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0167: *5in Rolling Airframe Missile*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0167				
MS C/LRIP	2	2012	2	2012
IOC	1	2014	1	2014
FRP	3	2016	3	2016
GTV-1A Firing	1	2012	1	2012
GTV-2 Firing	1	2012	1	2012
GTV-3 Firing	4	2012	4	2012
IOT&E (IT-C1)	3	2013	3	2013
IOT&E (IT-C3)	4	2013	4	2013
IOT&E (IT-C2)	2	2014	3	2014
IOT&E (IT-C5)	4	2015	4	2015
IOT&E (IT-C4)	1	2016	2	2016
ECPs/Improvement Studies	4	2016	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0173: *NATO Sea Sparrow*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0173: *NATO Sea Sparrow*	363.226	10.791	32.005	48.888	-	48.888	81.385	108.122	68.917	153.993	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project encompasses five (5) primary efforts to enhance ship self defense:

1. Evolved SEASPARROW Missile (ESSM): A cooperative effort among 10 NATO SEASPARROW Nations and the U.S., to improve the capability of the SEASPARROW Missile to counter the low altitude, highly maneuverable Anti-Ship Cruise Missile (ASCM) threat. The program consists of evolving the SEASPARROW Missile through the development of a new rocket motor with tail control; thrust vector control and ordnance (warhead) upgrade; modifications to the MK 41 Vertical Launch System (VLS) to fire from a single cell with 4 ESSM (QuadPack); and modifications to the NSSMS to provide ESSM capability.

2. NATO SEASPARROW - MK 91 Rearchitecture: The MK 91 Rearchitecture Program integrates NSSMS into the Ship Self Defense System (SSDS) Architecture to provide ship missile defense utilizing an open architected system Technical Design Agent.

3. NATO SEASPARROW Objective Configuration (OC). The OC Program consists of segmenting and automating the existing MK 57 NSSMS radars (MK 9 Track Illuminator System) and launchers (MK 29 Guided Missile Launching System). The program eliminates all MK 57 watch stations, reduces the required system hardware.

4. STALKER LONG RANGE Electro Optic(EO)/Infra Red (IR)/Laser Range Finder (LRF) SYSTEM: Detects, acquires, classifies, identifies and determines intent of conventional,asymmetrical and advanced threats supporting Anti-Air Warefare (AAW), Anti-Surface Warefare (ASUW), Anti-terrorism/Force Protection (AT/FP) and Global War on Terrorism. Long Range Visible/Infra Red Sensors and Laser Range Finder provide multi-spectral target imagery and accurate range data in non-benign environments. Classification to the horizon, visual resolution of 1ft @ 10 nm and range resolution/rate within 1 ft/1kt/nm. 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).

5. ESSM Block 2 Risk Reduction: ESSM Block 2 upgrade is a cooperative effort between U.S Navy and NATO SEASPARROW Consortium Nations. ESSM Block 2 upgrade replaces the largely obsolete guidance section with a dual mode Active/Semi-Active X-Band seeker capable of defeating future threat capabilities within the existing envelope, including; smaller signatures, increased raid sizes, and adverse environments including countermeasures. Threat types include; advanced Anti-Ship Cruise Missile (ASCM)s, Anti-Ship Ballistic Missiles (ASBMs), surface and asymmetrical.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: NATO Sea Sparrow integration testing	4.936	9.356	9.207

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0173: *NATO Sea Sparrow*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:	0	0	0
FY 2012 Accomplishments: Conducted US-unique DT/OT firings from SDTS and carriers (DT/OT-D2, DT/OT-D3). Conducted ESSM Aegis integration testing and DT/OT firings on Cruisers and Destroyers and SDTS (DT/OT-D4, DT/OT-D5, DT/OT-D6) in support of Aegis Modernization Program. Conducted ESSM DT/OT firings on SDTS (DT/OT-D7) in support of SSDS Open Architecture integration and uplink development. This provided for the U.S. share of cooperative efforts associated with ESSM engineering studies and other development initiatives.			
FY 2013 Plans: Continue ESSM SSDS integration testing on CVN platforms. Conduct US-unique DT/OT firings from SDTS and carriers (DT/OT-D2, DT/OT-D3). Conduct ESSM Aegis integration testing and DT/OT firings on Cruisers and Destroyers and SDTS (DT/OT-D4, DT/OT-D5, DT/OT-D6) in support of Aegis Modernization Program. Conduct ESSM DT/OT firings on SDTS (DT/OT-D7) in support of SSDS Open Architecture integration and uplink development. This provides for the U.S. share of cooperative efforts associated with ESSM engineering studies and other development initiatives.			
FY 2014 Plans: Continue ESSM SSDS integration testing on CVN platforms. Conduct US-unique DT/OT firings from SDTS and carriers (DT/OT-D2, DT/OT-D3). Conduct ESSM Aegis integration testing and DT/OT firings on Cruisers and Destroyers and SDTS (DT/OT-D4, DT/OT-D5, DT/OT-D6) in support of Aegis Modernization Program. Conduct ESSM DT/OT firings on SDTS (DT/OT-D7) in support of SSDS Open Architecture integration and uplink development. This provides for the U.S. share of cooperative efforts associated with ESSM engineering studies and other development initiatives.			
Title: NATO SEASPARROW Objective Configuration	0.000	8.903	16.980
Articles:		0	0
Description: NATO SEASPARROW Objective Configuration (OC). The OC Program consists of segmenting and automating the existing MK 57 NSSMS radars (Mk 9 Track illuminator System) and launchers (Mk 29 Guided Missile Launching System). The program eliminates all MK 57 watch stations, reduces the required system hardware.			
FY 2013 Plans: Begin engineering development of the OC. Specific efforts in 2013 will include requirements definition, completion of the requirements review followed by design definition with the preliminary design review completing in the 4th Quarter of FY 13.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0173: *NATO Sea Sparrow*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
The OC FY14 RDTE funding is allocated to the systems engineering and software design and development activity associated with the NSSMS MK 9 radar automation, including associated SSDS engineering and software development efforts.			
Title: NATO Sea Sparrow Combat System Integraton Technical Direction Agent (TDA) ***Articles:*** ***FY 2012 Accomplishments:*** Provided funding for the TDA for the engineering support for combat system performance and risk mitigation. ***FY 2013 Plans:*** Technical directive agent for the NSSM / MK 91 REACH. Provide engineering support in the integration with other combat systems and risk mitigation. ***FY 2014 Plans:*** Technical directive agent for the NSSM / MK 91 REACH. Provides engineering support in the integration with other combat systems and risk mitigation.	0.255 0	0.263 0	0.272 0
Title: STALKER LONG RANGE EO/IR/LRF SYSTEM ***Articles:*** ***Description:*** STALKER LONG RANGE EO/IR/LRF SYSTEM: Detects, acquires, classifies, identifies and determines intent of conventional,asymmetrical and advanced threats supporting AAW, ASUW, AT/FP and Global War On Terrorism. Long Range Visible/Infra Red Sensors and Laser Range Finder provide multi-spectral target imagery and accurate range data in non-benign environments. Classification to the horizon, visual resolution of 1ft @ 10 nm and range resolution/rate within 1 ft/1kt/nm. 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). Stalker will replace the Lowlight Level Television (LLTV) in the fleet. ***FY 2012 Accomplishments:*** A letter contract was awarded in August to Ball to procure 3 Stalker prototype units along with required installation and the applicable data package. The contract contained an option for 5 additional units exercised in January. These 8 prototype units are expected to begin delivery in May 2013. ***FY 2013 Plans:*** Test Stalker Long Range EO/IR/LRF system on multiple ship configurations. Develop tactics, techniques and procedures, and different Concept of Operations (CONOPS). Determine optimum production configuration of controllers, video distribution, and changes in capability required for common system for LHA/LHD and CVN missions. Identify capability and configuration changes during developmental testing to avoid costly engineering changes during prodcution. ***FY 2014 Plans:***	5.600 0	5.483 0	2.429 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0173: *NATO Sea Sparrow*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Transition Active/Passive Dual Imaging Sensor (AP/DIS IR) improvement to Stalker to improve environmetal performance via active/passive Short Wave Infra Red. System improves maritime target identification with increased range and resolution at night and through haze penetration/clutter reduction.			
Title: Evolved SEASPARROW Blk 2 Risk Reduction	0.000	8.000	20.000
Articles:		0	0
FY 2013 Plans: Perform Risk Reduction with consortium partners to reduce technology risk, determine and mature the appropriate set of technologies to be integrated into a full system.			
FY 2014 Plans: Complete Risk Reduction Phase and enter into Engineering Manufacturing Development (EMD) 2015 with an 2020 IOC. Tasks include items such as: conducting critical experiments and analyses required to mature design to support PDR; procurement of long lead laboratory and test assets required to support EMD; transitioning of design activities from Risk Reduction to EMD, and the start of EMD contract.			
Accomplishments/Planned Programs Subtotals	10.791	32.005	48.888

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• WPN 2307: *ESSM*	48.486	58.194	76.773		76.773	120.371	132.509	134.524	135.112	337.546	1,844.304
• OPN 5237: *NATO SEA SPARROW*	8.926	8.960	60.403		60.403	28.564	40.636	31.637	32.179	Continuing	Continuing

Remarks

D. Acquisition Strategy

ESSM is a directed sole source contract to Raytheon Missile Systems Company. The MK 29 ESSM Launcher Upgrade and REARC/SSDS Integration effort was a directed sole source contract to Raytheon Company Integrated Defense System.

E. Performance Metrics

Successfully complete Developmental Test/Operational testing.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ESSM-Primary Hardware Development	C/CPAF	Raytheon:Tucson	143.356	0.000		0.000		0.000		-		0.000	0.000	143.356	
ESSM-Primary Hardware Development	C/CPAF	Raytheon:Tuscon	3.746	0.000		0.000		0.000		-		0.000	0.000	3.746	3.746
Amphib Self-Defense PRA Imp	Various	various:various	1.996	0.000		0.000		0.000		-		0.000	0.000	1.996	11.200
Ancillary Hardware Development	SS/CPAF	Lockhead/ UDLP:various	46.706	0.000		0.000		0.000		-		0.000	0.000	46.706	46.706
Systems Engineering	Various	various:various	22.622	0.000		0.000		0.000		-		0.000	0.000	22.622	22.622
MK 29/ESSM Launcher upgrade	C/CPAF	Raytheon Sys:Tucson	8.521	0.000		0.000		0.000		-		0.000	0.000	8.521	8.521
NATO-Primary Hdw Dev	SS/CPAF	Raytheon Sys:Tucson	30.627	0.000		0.000		0.000		-		0.000	0.000	30.627	30.627
Software Development/ Test	SS/CPAF	Raytheon Sys:Tucson	7.691	0.000		0.000		0.000		-		0.000	0.000	7.691	
Systems Engineering/ Firing Spt	WR	Corona:CA	6.640	0.600	Nov 2011	0.685	Dec 2012	0.893	Dec 2013	-		0.893	0.000	8.818	
NATO OC - Hardware	SS/CPAF	Raytheon:RI	0.000	0.000		1.000	Nov 2012	0.000		-		0.000	0.000	1.000	
NATO OC System Engineering	SS/CPAF	Raytheon:RI	0.000	0.000		1.653	Nov 2012	2.679	Nov 2013	-		2.679	0.000	4.332	
NATO OC - Software	SS/CPAF	Raytheon:RI	0.000	0.000		4.938	Nov 2012	12.749	Feb 2014	-		12.749	0.000	17.687	
Stalker System Engineering	SS/CPAF	Ball:CO	0.000	0.000		3.233	Nov 2012	1.428	Dec 2013	-		1.428	0.000	4.661	
Stalker Hardware Engineering	SS/CPAF	Ball:CO	7.500	5.600	Nov 2011	1.250	Nov 2012	0.000		-		0.000	0.000	14.350	
Stalker Software Engineering	SS/CPAF	Ball:CO	2.000	0.000		0.500	Nov 2012	0.500	Dec 2013	-		0.500	0.000	3.000	
ESSM Blk 2 Risk reduction	SS/ FFPLOE	Raytheon Sys:Tuscon	0.000	0.000		8.000	Nov 2012	20.000	Dec 2013	-		20.000	0.000	28.000	
		Subtotal	281.405	6.200		21.259		38.249		0.000		38.249	0.000	347.113	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0173: *NATO Sea Sparrow*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support	WR	NSWC PHD:CA	3.568	0.000		0.000		0.000		-		0.000	0.000	3.568	
Engr Support1	WR	various:various	4.207	0.000		0.000		0.000		-		0.000	0.000	4.207	
MK 29/ESSM Launcher Support	WR	Dahlgren/PHD:VA/ CA	0.375	0.000		0.000		0.000		-		0.000	0.000	0.375	
Engr Support2	WR	various:various	0.195	0.000		0.000		0.000		-		0.000	0.000	0.195	0.195
NATO-MK 91/SSDS Integ	WR	Dahlgren/PHD:VA/ CA	0.834	0.000		0.000		0.000		-		0.000	0.000	0.834	
Engr Support3	WR	various:various	6.364	0.000		0.000		0.000		-		0.000	0.000	6.364	
NATO System TDA	SS/FP	APL:MD	1.220	0.155	Dec 2011	0.272	Nov 2012	0.272	Dec 2013	-		0.272	Continuing	Continuing	Continuing
NATO OC	SS/FFP	APL:MD	0.000	0.000		0.300	Nov 2012	0.300	Dec 2013	-		0.300	0.000	0.600	
Stalker -ISEA/TDA/RM&A	SS/FFP	various:various	0.000	0.000		0.300	Nov 2012	0.300	Dec 2013	-		0.300	0.000	0.600	
NATO Engr Support OC	WR	various:various	0.000	0.000		0.400	Nov 2012	0.500	Dec 2013	-		0.500	0.000	0.900	
		Subtotal	16.763	0.155		1.272		1.372		0.000		1.372			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC CL:CA	15.698	1.217	Oct 2011	1.568	Dec 2012	1.694	Jan 2014	-		1.694	Continuing	Continuing	Continuing
OPEVAL/TECHEVAL/Test Firings	WR	Corona, IHD, Dahlgren, SNSWC, PHD):various	11.878	0.000		2.310	Nov 2012	2.391	Jan 2014	-		2.391	0.000	16.579	
Developmental Test & Evaluation	SS/FFP	APL:MD	2.979	0.510	Oct 2011	0.659	Oct 2012	0.789	Feb 2014	-		0.789	Continuing	Continuing	Continuing
ESSM Test & Evaluation	C/CPAF	Raytheon:Tuscon	7.998	2.026	Nov 2011	3.056	Nov 2012	2.473	Feb 2014	-		2.473	Continuing	Continuing	Continuing
Developmental Test & Evaluation	WR	Dahlgren:VA	0.418	0.000		0.000		0.000		-		0.000	0.000	0.418	0.836
ESSM Test & Evaluation	WR	Dahlgren/PHD:VA/ CA	0.000	0.543	Nov 2011	0.560	Nov 2012	0.592	Feb 2014	-		0.592	0.000	1.695	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0173: *NATO Sea Sparrow*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NATO OC - Test & Evaluation	WR	Dahlgren/PHD:VA/ CA	0.000	0.000		0.469	Nov 2012	0.572	Nov 2013	-		0.572	0.000	1.041	
Stalker - Test & eval	WR	TBD:TBD	0.000	0.000		0.200	Nov 2012	0.200	Mar 2014	-		0.200	0.000	0.400	
		Subtotal	38.971	4.296		8.822		8.711		0.000		8.711			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ESSM-ENGR SPT	WR	various:various	4.913	0.000		0.000		0.000		-		0.000	0.000	4.913	
ESSM-PM SPT	WR	various:various	0.498	0.000		0.000		0.000		-		0.000	0.000	0.498	0.498
ESSM-Support and Performing Activity	Allot	PHD/NAWC CL/ APL:CA/MD	13.951	0.000		0.256	Dec 2012	0.300	Oct 2013	-		0.300	Continuing	Continuing	Continuing
ESSM-Travel	Allot	Program Office:VA	2.782	0.140	Nov 2011	0.105	Oct 2012	0.075	Oct 2013	-		0.075	Continuing	Continuing	Continuing
ESSM-Misc	Various	various:various	2.065	0.000		0.100	Jun 2013	0.101	Nov 2013	-		0.101	0.000	2.266	2.065
NATO Travel/Misc	Various	various:various	1.831	0.000		0.191	Oct 2012	0.080	Oct 2013	-		0.080	0.000	2.102	
Defense Acquisition Workforce Development Fund	Various	various:various	0.047	0.000		0.000		0.000		-		0.000	0.000	0.047	
		Subtotal	26.087	0.140		0.652		0.556		0.000		0.556			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	363.226	10.791		32.005		48.888		0.000		48.888			

Remarks

Various used for multiple vendors and location under threshold.

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0173: *NATO Sea Sparrow*

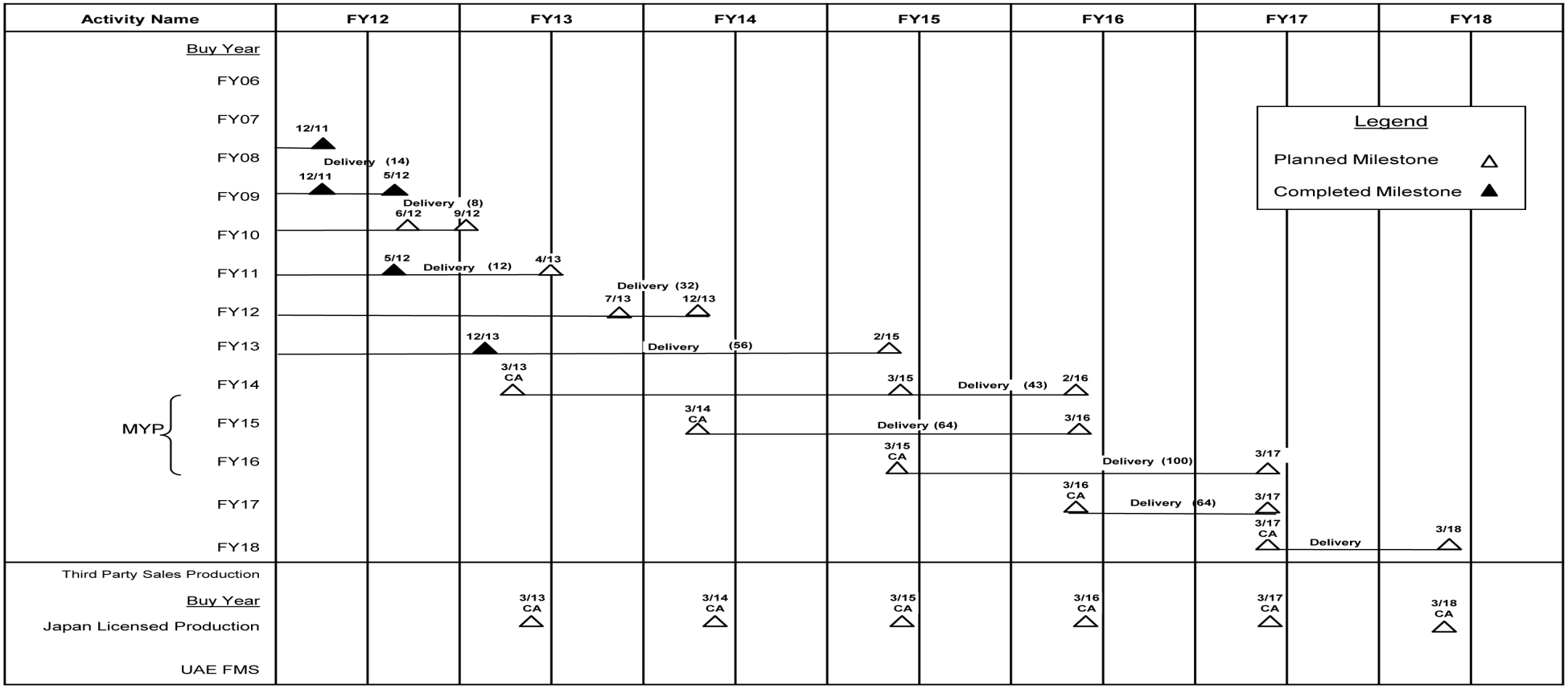


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 0173: *NATO Sea Sparrow*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0173				
Platform Intergration DT/OT	1	2012	2	2016
Expiration of Production MOU	1	2012	1	2012
MOU Extension	2	2012	3	2014
Page/Group/Row: FY 08 FRP DELIVERIES	1	2012	1	2012
Page/Group/Row: FY 09 FRP DELIVERIES	1	2012	3	2012
Page/Group/Row: FY 10 FRP DELIVERIES	3	2012	3	2013
Page/Group/Row: FY 11 FRP DELIVERIES	4	2013	1	2014
Page/Group/Row: FY 12 FRP CONTRACT AWARD	1	2012	1	2012
Page/Group/Row: FY 12 FRP DELIVERIES	1	2014	3	2014
Page/Group/Row: FY 13 FRP CONTRACT AWARD	1	2013	1	2013
Page/Group/Row: FY 13 FRP DELIVERIES	1	2015	1	2016
Page/Group/Row: FY 14 FRP CONTRACT AWARD	1	2014	1	2014
Page/Group/Row: FY14 FRP DELIVERIES	1	2016	3	2016
Page/Group/Row: FY 15 FRP CONTRACT AWARD	1	2015	1	2015
Page/Group/Row: FY15 FRP DELIVERIES	1	2017	3	2017
Page/Group/Row: FY 16 FRP CONTRACT AWARD	1	2016	1	2016
Page/Group/Row: FY 17 FRP CONTRACT AWARD	1	2018	1	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 3342: *Griffin Missile*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3342: *Griffin Missile*	24.783	8.000	30.777	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	63.560
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The purpose of this program is to develop and deliver Counter-Swarm Small Boat defense capabilities for the Surface Fleet. There are two (2) primary efforts supporting this mission area listed below:

1. Rapid Deployment Capabilities (RDCs)
- Cyclone Patrol Coastal(PC) with Griffin Missile System (GMS)
- Littoral Combat Ship (LCS) Missile Module with Griffin Missile System

2. Shoulder Launched Missile System

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Griffin Missile System (GMS) Rapid Deployment Capabilities (RDCs)	7.000	8.100	0.000
Articles:	0	0	
FY 2012 Accomplishments: Completed Launcher design, production and integration including restrained fire mitigation testing and environmental testing. Developed Weapons control system and battle management system and software modifications. Conducted end-to-end system testing in software integration lab. Procured test missiles, performed test planning and preparations, installation and checkout. Planned procurement for forward deployed PC hardware.			
FY 2013 Plans: Conduct Guided Test Vehicle (GTV)/structural test firing of Griffin missile and Quick Reaction Assessment (QRA) with Commander Operational Test and Evaluation Force (COMOPTEVFOR). Complete lead PC design, develop training and logistics support, obtain safety approvals for system deployment and formulate the OCONUS AIT plan. Continue procurement planning for forward deployed PC hardware. Hardware and software upgrade will be implemented based on results of operational assessment.			
Title: Shoulder Launched Missile Systems	0.000	22.677	0.000
Articles:		0	
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 3342: *Griffin Missile*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Perform environmental and safety qualification. Complete Electromagnetic Vulnerability/Electromagnetic Interference (EMV/EMI) validation. Develop training curriculum and logistics support plan for existing missiles. Missile modifications, launcher development, architecture and warhead upgrade analysis for developmental missiles.			
Title: LCS Increment 1 with Griffin Missile ***Articles:*** ***FY 2012 Accomplishments:*** Procured two (2) Griffin test missiles for LCS and performed LCS missile module modifications in preparation for the July 2013 test.	1.000 0	0.000	0.000
Accomplishments/Planned Programs Subtotals	8.000	30.777	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• WPN/2264: *Stand Off Precision Guided Munitions (SOPGM)*	7.680	0.000	6.278		6.278	0.445	0.445	0.445	0.454	0.000	23.427
• OPN/5543: *Items Less Than $5 Million*	9.600	0.000	5.793		5.793	4.367	2.927	0.000	0.000	0.000	32.287
• OMN/1D4D: *Griffin Missile System Budget*	0.000	0.000	1.567		1.567	6.795	6.895	6.995	7.120	0.000	29.372

Remarks

D. Acquisition Strategy

RDCs consist of Griffin Missile System (GMS) integrated on Patrol Coastal and LCS. The Program Office manages development and integration of the GMS on surface ships. GMS consists of Griffin B Block II Missile procured via Raytheon sole source contract with U.S. Army Joint Attack Munitions System (JAMS) program office; BriteStar EO/IR Laser Designator procured by Navy Surface Weapon Center (NSWC) Crane on a FFP contract with Forward Looking Infra Red Systems. The Missile Launcher and Battle Management System are developed at NSWC Dahlgren and NSWC Corona. NSWC China Lake develops the shoulder launcher for Spike missile, Javelin missiles are procured through MARCOSYSCOM program office.

E. Performance Metrics

Successful completion of Quick Reaction Assessment (QRA) for Griffin Missile System Mar 2013. Qualification of Javelin missile for use aboard Military Sealift Command ships.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 3342: *Griffin Missile*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GMS - PC Integration	WR	PHD:CA	1.097	1.306	Nov 2012	0.410	Nov 2012	0.000		-		0.000	0.000	2.813	
GMS - PC Integration	WR	Dahlgren:VA	6.188	4.406	Nov 2012	3.599	Nov 2012	0.000		-		0.000	0.000	14.193	
Shoulder Launch Missile Development	WR	China Lake:CA	4.254	0.150	Nov 2012	22.677	Nov 2012	0.000		-		0.000	0.000	27.081	
GMS - PC Integration	WR	Crane:IN	4.171	0.510	Nov 2012	0.000		0.000		-		0.000	0.000	4.681	
GMS - PC Integration	MIPR	JAMS:AL	3.906	0.209	Nov 2012	1.275	Jan 2013	0.000		-		0.000	0.000	5.390	
GMS - PC Integration	WR	Corona:CA	0.476	0.413	Nov 2012	0.120	Dec 2012	0.000		-		0.000	0.000	1.009	
GMS - PC Integration	WR	Pt Mugu:CA	0.704	0.000		0.000		0.000		-		0.000	0.000	0.704	
GMS - PC Integration	WR	Indian Head:MD	0.000	0.030	Nov 2012	0.000		0.000		-		0.000	0.000	0.030	
GMS - PC Integration	WR	SPAWAR:CA	0.195	0.198	Nov 2012	0.055	Jan 2013	0.000		-		0.000	0.000	0.448	
GMS - PC Integration	Various	Various:Various	2.400	0.556	Nov 2012	1.757	Feb 2013	0.000		-		0.000	0.000	4.713	
		Subtotal	23.391	7.778		29.893		0.000		0.000		0.000	0.000	61.062	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Various:Various	1.392	0.222	Nov 2012	0.884	Feb 2013	0.000		-		0.000	0.000	2.498	
		Subtotal	1.392	0.222		0.884		0.000		0.000		0.000	0.000	2.498	

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	24.783	8.000		30.777		0.000		0.000		0.000	0.000	63.560	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 3342: *Griffin Missile*

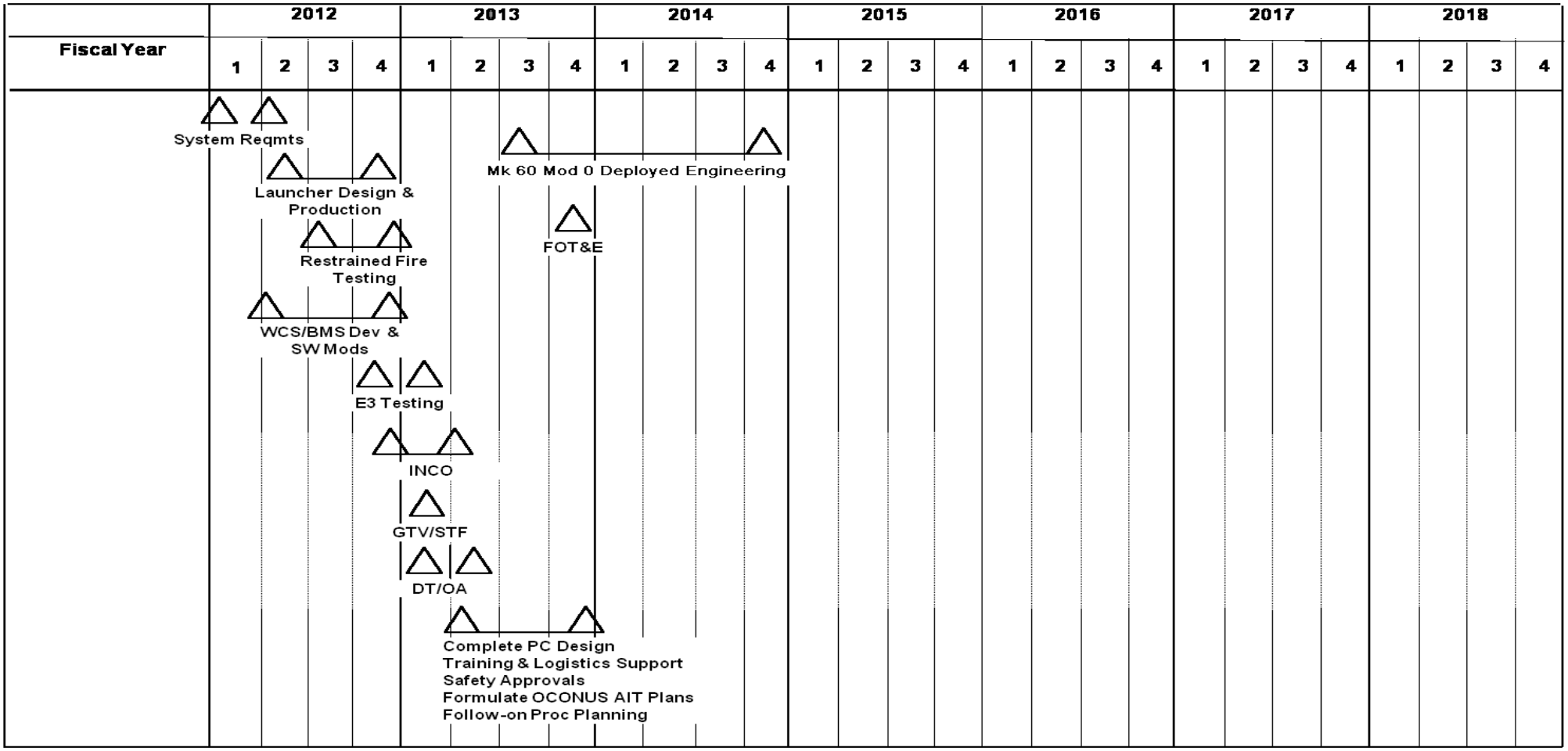


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	**PROJECT** 3342: *Griffin Missile*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3342				
System Requirements	1	2012	2	2012
Launcher Design & Production	2	2012	4	2012
Restrained Fire Testing	3	2012	4	2012
WCS/BMS Dev and SW Mods	2	2012	4	2012
E3 Testing	4	2012	1	2013
INCO	4	2012	1	2013
GTV/STF	1	2013	1	2013
DT/OA	1	2013	2	2013
Complete PC Design, Trng, Safety, AIT Plans, Proc Planning	2	2013	4	2013
Mk 60 Mod 0 Deployed Engineering	3	2013	4	2014
FOT&E	4	2013	4	2013

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	18.000	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Congressional Add.

B. Accomplishments/Planned Programs ($ in Millions)

N/A

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not required for Congressional Adds.

E. Performance Metrics

Not required for Congressional Adds.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604756N: *Ship Self Def (Engage: Hard Kill)*	PROJECT 9999: *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TBD	TBD	TBD:TBD	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		0.000		0.000		0.000			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		0.000		0.000		0.000			

Remarks

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	615.284	179.033	151.489	164.799	-	164.799	210.407	176.348	188.951	165.044	Continuing	Continuing
0954: *Shipboard EW Improvement Program*	416.603	17.980	18.494	17.921	-	17.921	15.676	15.788	16.121	16.372	Continuing	Continuing
2190: *NULKA Decoy*	48.876	3.432	2.352	4.611	-	4.611	6.209	3.156	8.182	8.312	Continuing	Continuing
3227: *SEWIP Block 2*	135.114	42.804	29.937	5.968	-	5.968	0.600	0.532	0.547	0.558	Continuing	Continuing
3316: *Advanced Offboard EW*	0.000	22.395	23.211	23.132	-	23.132	73.955	67.045	72.687	73.819	Continuing	Continuing
3321.: *SEWIP Block 3*	14.691	92.422	77.495	108.300	-	108.300	91.201	49.374	45.169	45.869	Continuing	Continuing
3362: *E-NULKA*	0.000	0.000	0.000	4.867	-	4.867	22.766	40.453	46.245	20.114	Continuing	Continuing
MDAP/MAIS Code(s): 582												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

0954 - The Surface Electronic Warfare Improvement Program (SEWIP) Block 1 provides enhanced Electronic Warfare (EW) capabilities to existing and new ship combat systems to improve Anti Ship Missile Defense (ASMD), counter-targeting and counter surveillance capabilities, as well as improved situational awareness. The SEWIP Block 1 employs an evolutionary acquisition and incremental development strategy to upgrade surface EW capabilities via a series of block upgrades to the AN/SLQ-32(V) system, and field EW improvements to keep pace with the ASMD threat. SEWIP Block 1 will provide required EW capabilities and will incorporate technology advances as they become available to provide incremental upgrades and improvements in performance.

2190 - The Offboard Active Decoy (NULKA) is a joint cooperative program between the United States and Australia that developed an active offboard decoy that utilizes a broadband radio frequency repeater mounted atop a hovering rocket. NULKA is designed to counter a wide variety of present and future radar guided Anti-Ship Missiles (ASMs) by radiating a large radar cross section while flying a ship-like trajectory. The United States developed the electronic payload and fire control system, while Australia developed the hovering rocket. Future efforts involve development of the capability for high value unit protection.

3227 - SEWIP Block 2 is developing an upgraded antenna, receiver, and combat system interface for SLQ-32. The upgrades are necessary in order to pace the threat, improving detection, accuracy, and mitigation of Electromagnetic Interference (EMI).

3316 - The Advanced Offboard EW (AOEW) program is for the development of long duration off-board decoys integrated with onboard systems for EW coordination to counter identified EW gaps (additional details classified) in response to an urgent operational need from the Fleet that has been approved by the CNO for execution. Currently no counter to the threat exists. The program consists of a Rapid Response Effort (RRE) to provide an initial, limited decoy capability to the Fleet by 2014

and a Decoy Development Effort (DDE) culminating in the delivery of a fully supported, full capability system. The RRE (FY12-FY13) consists of the evaluation and integration of commercially available decoys. The DDE (commencing in FY12) concerns the development and evaluation of a long duration, active electronic offboard decoy system (vehicle and payload) and an onboard/offboard EW coordinator fully able to counter the threat.

3321 - SEWIP Block 3 will provide an Electronic Attack (EA) capability improvement required for the SLQ-32(V) system to keep pace with the threat. SEWIP Block 3 will provide a common EA capability to all surface combatants (CVN, CG, DDG, LHA) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new-construction platforms.

3362 - E-Nulka is an upgrade to the Nulka decoy to expand frequency coverage to counter an emerging class of Anti-Ship Missiles (ASMs) for which no active countermeasure currently exists. The Program supports the engineering development of the payload receiver, signal processor and transmitter, construction of complete payloads, integration of the completed payload with the Nulka vehicle, and subsequent technical and operational assessment.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	184.087	151.489	169.224	-	169.224
Current President's Budget	179.033	151.489	164.799	-	164.799
Total Adjustments	-5.054	0.000	-4.425	-	-4.425
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.480	0.000			
• SBIR/STTR Transfer	-4.574	0.000			
• Program Adjustments	0.000	0.000	0.023	-	0.023
• Rate/Misc Adjustments	0.000	0.000	-4.448	-	-4.448

Change Summary Explanation

Financial: Reduced FY 12 funding to support higher priority Department requirements. Added FY 14 funding to support SEWIP Blk 2 IOT&E and TECHEVAL events ($3.1M), SEWIP BLK 1 HGHS and AOEW/RRE development ($5M), E-NULKA development ($7.4M). Reduced FY 14 funding for SEWIP BLK 3 and AOEW efforts ($15.3M) to properly phase program requirements in accordance with expenditures.

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0954: *Shipboard EW Improvement Program*	416.603	17.980	18.494	17.921	-	17.921	15.676	15.788	16.121	16.372	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

SEWIP Block 1 provides enhanced EW capabilities to existing and new ship combat systems to improve ASMD, counter-targeting and counter surveillance capabilities, as well as improved situational awareness. SEWIP Block 1 employs an evolutionary acquisition and incremental development strategy to upgrade surface EW capabilities via a series of block upgrades to the AN/SLQ-32(V) system, and field EW improvements to keep pace with the ASMD threat. SEWIP Block 1 will provide required EW capabilities and will incorporate technology advances as they become available to provide incremental upgrades and improvements in performance.

SEWIP Block 1 is segmented into Block 1A, and Block 1B, ALQ-210 integration, and EW Rapid Capability Insertion Process (RCIP). Block 1A upgrades the AN/SLQ-32 pulse-processing computers and the display console allowing the system to more quickly identify threats and better display the information to the operator. Block 1A Electronic Surveillance Enhancements (ESE) pulse-processing computers and the Improved Control and Display (ICAD) Human System Interface (HSI) console partially open the electronic warfare system architecture to support subsequent EW capability upgrades. Block 1B adds adjunct sensors for special signal intercept, including Specific Emitter Identification (SEI), and High Gain High Sensitivity (HGHS) (Block 1B3), a critical improvement for threat correlation, situational awareness, and extending the battle space. ALQ-210 integration will develop capability to use and integrate Electronic Warfare Support (ES) controls and data between AN/SLQ-32 and the ALQ-210 on the MH60R. EW RCIP identifies joint force capability gaps, prioritizes those gaps based on fleet input and critical technology maturity, and develops upgrades to the AN/SLQ-32(V) product line for fielding to address those gaps.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Block 1B3	9.286	6.106	6.892
Articles:	0	0	0
FY 2012 Accomplishments: Commenced integration and testing of Engineering Development Models (EDMs). Completed Milestone (MS)-C.			
FY 2013 Plans: Continue integration and testing.			
FY 2014 Plans: Complete integration and testing of EDMs.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Conduct At-Sea testing. Complete Full Rate Production (FRP) Decision Review (DR).			
Title: V(4) Electronic Surveillance Enhancements (ESE)	1.670	0.500	0.000
Articles:	0	0	
Description: Due to ship availability delays, V(4)ESE Initial Operational Test & Evaluation (IOT&E) was conducted in second quarter FY13.			
FY 2012 Accomplishments: Conducted At-Sea testing. Analyzed and corrected deficiencies.			
FY 2013 Plans: Conduct IOT&E. Analyze and correct deficiencies. Complete MS-C DR.			
Title: EW RCIP	3.894	8.698	11.029
Articles:	0	0	0
FY 2012 Accomplishments: Awarded E&MD contract for RCIP #1. Identified and prioritized capability gaps in support of release of Request for Information/Request for Proposal (RFI/RFP) for future (RCIP #2) RCIP candidates.			
FY 2013 Plans: Continue E&MD of EW RCIP #1. Award E&MD contract for RCIP #2. Identify and prioritize capability gaps in support of release of RFI/RFP for future (RCIP #3) RCIP candidates.			
FY 2014 Plans: Complete E&MD of RCIP #1. Continue E&MD of RCIP #2. Award E&MD contract for RCIP #3.			
Title: Shipboard Integration	3.130	3.190	0.000
Articles:	0	0	

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Continued development of capability to use and integrate ES controls and data between ALQ210 (on the MH60R) and AN/SLQ-32. ***FY 2013 Plans:*** Complete development of capability to use and integrate ES controls and data between ALQ210 (on the MH60R) and AN/SLQ-32.			
Accomplishments/Planned Programs Subtotals	17.980	18.494	17.921

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• 0204228N/2312: *OPN BA-2 AN/SLQ-32(V)*	39.902	92.270	203.375		203.375	287.478	263.017	347.335	372.120	Continuing	Continuing
• 24575N & 72827N/1C2C: *OMN BA-1 AN/SLQ-32(V)*	10.118	7.698	8.536		8.536	8.665	8.979	9.823	9.973	Continuing	Continuing

Remarks

D. Acquisition Strategy

SEWIP will develop Block upgrades to SLQ-32 based on integrating technology advances and adding functional capabilities in an incremental fashion. Each Block and Sub-Block will be developed and contracted in an individual yet coordinated and overlapping fashion.

E. Performance Metrics

Successfully achieve Block 1B3 Milestone C / Low Rate Initial Production (LRIP) Decision Review (DR).
Successfully complete Block 1B3 Initial Operational Test & Evaluation (IOT&E).
Successfully achieve Block 1B3 Full Rate Production (FRP) DR.

Successfully identify RCIP capabilities.
Successfully identify and assess RCIP Science & Technology candidates.
Award E&MD contract for RCIP #1.
Successfully demonstrate and validate RCIP capabilities.
Award E&MD contract for RCIP #2.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Ancillary Hardware Development	Various	Various:Various	151.420	0.000		0.000		0.000		-		0.000	0.000	151.420	
ESE Development	SS/CPFF	Northrop Grumman:Goleta, CA	12.415	0.342	Jan 2012	0.113	Dec 2012	0.000		-		0.000	0.000	12.870	
ICAD Development	SS/CPFF	GD-AIS:Fairfax, VA	11.747	0.000		0.000		0.000		-		0.000	0.000	11.747	
ESE Development (Block 1A)	SS/CPFF	Northrop Grumman:Goleta, CA	0.471	0.000		0.000		0.000		-		0.000	0.000	0.471	
System Integrator	C/CPAF	GD-AIS:Fairfax, VA	13.798	0.000		0.000		0.000		-		0.000	0.000	13.798	
1B Development	SS/CPIF	GD-AIS:Fairfax, VA	82.231	1.936	Dec 2011	1.832	Mar 2013	0.500	Nov 2013	-		0.500	Continuing	Continuing	Continuing
Q-70 Mods	C/CPFF	LM-EAGAN:Eagan, MN	3.491	0.000		0.000		0.000		-		0.000	0.000	3.491	
Block 2 Study/ Development	C/CPIF	BAE:Nashua, NH	0.336	0.000		0.000		0.000		-		0.000	0.000	0.336	
ALQ210 Integration	WR	NSWC Dahlgren:Dahlgren, VA	4.050	3.130	Nov 2011	3.190	Nov 2012	0.000		-		0.000	0.000	10.370	Continuing
Rapid Capability Insertion Process (RCIP) #1	C/CPIF	Lockheed Martin:Syracuse, NY	0.000	2.000	Aug 2012	0.000		0.000		-		0.000	0.000	2.000	
RCIP #1	WR	NSWC Dahlgren:Dahlgren, VA	0.000	0.025	Aug 2012	0.625	Nov 2012	0.000		-		0.000	0.000	0.650	
RCIP #2 & #3	TBD	TBD:TBD	0.000	0.000		4.054	May 2013	5.717	Mar 2014	-		5.717	Continuing	Continuing	Continuing
		Subtotal	279.959	7.433		9.814		6.217		0.000		6.217			

Remarks

Ancillary Hardware Development included several contractors from the original development of the SLQ-32 system. Product Development for RCIP #2 & #3 is in a competitive status.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Integrated Logistics Support	WR	NSWC Crane, DD, NRL, APL:Crane, IN; Dahlgren, VA; Washington, DC; Laurel,MD	9.912	0.000		0.000		0.000		-		0.000	0.000	9.912	
Block 1 Integrated Logistics Support	WR	NSWC Crane:Crane, IN	1.099	1.070	Nov 2011	0.501	Nov 2012	0.548	Nov 2013	-		0.548	Continuing	Continuing	Continuing
Block 1 Integrated Logistics Support	WR	NSWC DD:Dahlgren, VA	0.293	0.000	Nov 2011	0.000		0.000		-		0.000	0.000	0.293	
Block 1 Government Engineering Support	WR	NSWC Crane, DD, NRL, APL:Crane, IN; Dahlgren, VA; Washington, DC; Laurel,MD	34.783	0.000		0.000		0.000		-		0.000	0.000	34.783	
Block 1 Government Engineering Support	WR	NSWC Dahlgren:Dahlgren, VA	0.579	1.050	Dec 2011	0.802	Nov 2012	0.944	Nov 2013	-		0.944	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	WR	NSWC Crane:Crane, IN	0.606	1.053	Nov 2011	0.672	Nov 2012	0.540	Nov 2013	-		0.540	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	WR	NRL:Washington, DC	0.602	0.306	Dec 2011	0.569	Nov 2012	0.540	Nov 2013	-		0.540	Continuing	Continuing	Continuing
Block 1 Government Engineering Support	SS/CPFF	APL:Laurel, MD	0.000	0.375	Dec 2011	0.659	Nov 2012	0.540	Nov 2013	-		0.540	Continuing	Continuing	Continuing
Block 1 SIPRNET Access	WR	ARL:Adelphi, MD	0.046	0.046	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Block 2 Integrated Logistics Support	WR	NSWC Crane, DD, NRL:Crane, IN; Dahlgren, VA; Washington, DC	0.540	0.000		0.000		0.000		-		0.000	0.000	0.540	
Block 2 Government Engineering Support	WR	NSWC Crane, DD, NRL:Crane, IN; Dahlgren, VA; Washington, DC	2.496	0.000		0.000		0.000		-		0.000	0.000	2.496	
		Subtotal	50.956	3.900		3.203		3.112		0.000		3.112			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Integration and Test	WR	NSWC Crane, DD, NRL:Crane, IN; Dahlgren, VA; Washington, DC	0.853	0.000		0.000		0.000		-		0.000	0.000	0.853	
Developmental Test & Evaluation	Various	Various:Various	8.958	0.000		0.000		0.000		-		0.000	0.000	8.958	
Block 1A Test Planning/ T&E Events	WR	NSWC Crane, DD, NRL:Crane, IN; Dahlgren, VA; Washington, DC	11.036	0.000		0.000		0.000		-		0.000	0.000	11.036	
Block 1B Test Planning/ T&E Events	WR	NSWC Crane, DD, NRL, NAVAIR, OPTEVFOR, NSWC PHD:Crane, IN; Dahlgren, VA; Washington, DC; MD; CA	9.567	0.000		0.000		0.000		-		0.000	0.000	9.567	
Block 1B Test Planning/ T&E Events	WR	NSWC Dahlgren:Dahlgren, VA	0.291	0.497	Dec 2011	0.550	Nov 2012	1.793	Nov 2013	-		1.793	Continuing	Continuing	Continuing
Block 1B Test Planning/ T&E Events	WR	NSWC Crane:Crane, IN	0.285	1.086	Nov 2011	0.540	Nov 2012	1.115	Nov 2013	-		1.115	Continuing	Continuing	Continuing
Block 1B Test Planning/ T&E Events	WR	NRL:Washington, DC	0.520	1.105	Dec 2011	1.696	Nov 2012	2.014	Nov 2013	-		2.014	Continuing	Continuing	Continuing
Block 1B Test Planning/ T&E Events	WR	OPTEVFOR:Norfolk, VA	0.039	0.110	Dec 2011	0.120	Nov 2012	0.107	Nov 2013	-		0.107	Continuing	Continuing	Continuing
Block 1B Test Planning/ T&E Events	WR	JITC:Indian Head, MD	0.000	0.081	Nov 2011	0.083	Feb 2013	0.172	Nov 2013	-		0.172	Continuing	Continuing	Continuing
(V)4 ESE Test Planning/ T&E Events	WR	NSWC Crane, DD, NRL:Crane, IN; Dahlgren, VA; Washington, DC	0.686	0.000		0.000		0.000		-		0.000	0.000	0.686	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
(V)4 ESE Test Planning/ T&E Events	WR	NSWC Dahlgren:Dahlgren, VA	0.519	0.090	Dec 2011	0.090	Nov 2012	0.000		-		0.000	0.000	0.699	
(V)4 ESE Test Planning/ T&E Events	WR	NSWC Crane:Crane, IN	0.815	0.264	Nov 2011	0.074	Nov 2012	0.000		-		0.000	0.000	1.153	
(V)4 ESE Test Planning/ T&E Events	WR	NRL:Washington, DC	1.348	0.400	Dec 2011	0.060	Nov 2012	0.000		-		0.000	0.000	1.808	
(V)4 ESE Test Planning/ T&E Events	WR	OPTEVFOR:Norfolk, VA	0.092	0.050	Dec 2011	0.050	Nov 2012	0.000		-		0.000	0.000	0.192	
RCIP Test Planning/T&E Events	WR	NSWC Dahlgren:Dahlgren, VA	0.000	0.000		0.593	Nov 2012	0.459	Nov 2013	-		0.459	Continuing	Continuing	Continuing
RCIP Test Planning/T&E Events	WR	NSWC Crane:Crane, IN	0.000	0.000		0.295	Nov 2012	0.426	Nov 2013	-		0.426	Continuing	Continuing	Continuing
RCIP Test Planning/T&E Events	WR	NRL:Washington, DC	0.000	0.000		0.057	Nov 2012	0.484	Nov 2013	-		0.484	Continuing	Continuing	Continuing
Block 2 Test Planning/T&E Events	WR	NSWC Crane, DD, NRL:Crane, IN; Dahlgren, VA; Washington, DC	0.941	0.000		0.000		0.000		-		0.000	0.000	0.941	
		Subtotal	35.950	3.683		4.208		6.570		0.000		6.570			

Remarks

Development Test & Evaluation included several activities from the original development of the SLQ-32 system. This line has been left on the exhibit to track Prior year costs of this PU.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Program Management	C/CPIF	SPA (SEAPORT):Washington D.C.	29.166	2.343	Nov 2011	0.239	Jan 2013	1.000	Nov 2013	-		1.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 1 Program Management Support	WR	NSWC Crane, DD, NRL:Crane, IN; Dahlgren, VA; Washington, DC	17.310	0.000		0.000		0.000		-		0.000	0.000	17.310	
Block 1 Program Management Support	WR	NSWC Crane:Crane, IN	0.351	0.135	Nov 2011	0.296	Nov 2012	0.273	Nov 2013	-		0.273	Continuing	Continuing	Continuing
Block 1 Program Management Support	WR	NSWC Dahlgren:Dahlgren, VA	0.442	0.277	Dec 2011	0.263	Nov 2012	0.241	Nov 2013	-		0.241	Continuing	Continuing	Continuing
Block 1 Program Management Support	WR	NRL:Washington, DC	0.492	0.088	Dec 2011	0.190	Nov 2012	0.207	Nov 2013	-		0.207	Continuing	Continuing	Continuing
Block 1 Program Management Support	SS/CPFF	APL:Laurel, MD	0.000	0.021	Dec 2011	0.191	Nov 2012	0.219	Nov 2013	-		0.219	Continuing	Continuing	Continuing
Block 1 Travel	WR	NAVSEA Program Office Travel:Washington, DC	0.955	0.100	Nov 2011	0.090	Nov 2012	0.082	Nov 2013	-		0.082	Continuing	Continuing	Continuing
Block 1 DoD Acquisition Workforce Fund	Various	Various:Various	0.126	0.000		0.000		0.000		-		0.000	0.000	0.126	
Block 2 Program Managment Support	C/FFP	AT&T Gov't Solutions (SEAPORT):Washington, DC	0.023	0.000		0.000		0.000		-		0.000	0.000	0.023	
Block 2 Program Managment Support	WR	NSWC Crane, DD, NRL:Various	0.823	0.000		0.000		0.000		-		0.000	0.000	0.823	
Block 2 Travel	WR	NAVSEA Program Office Travel:Washington, DC	0.050	0.000		0.000		0.000		-		0.000	0.000	0.050	
		Subtotal	49.738	2.964		1.269		2.022		0.000		2.022			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	416.603	17.980		18.494		17.921		0.000		17.921			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 0954: *Shipboard EW Improvement Program*

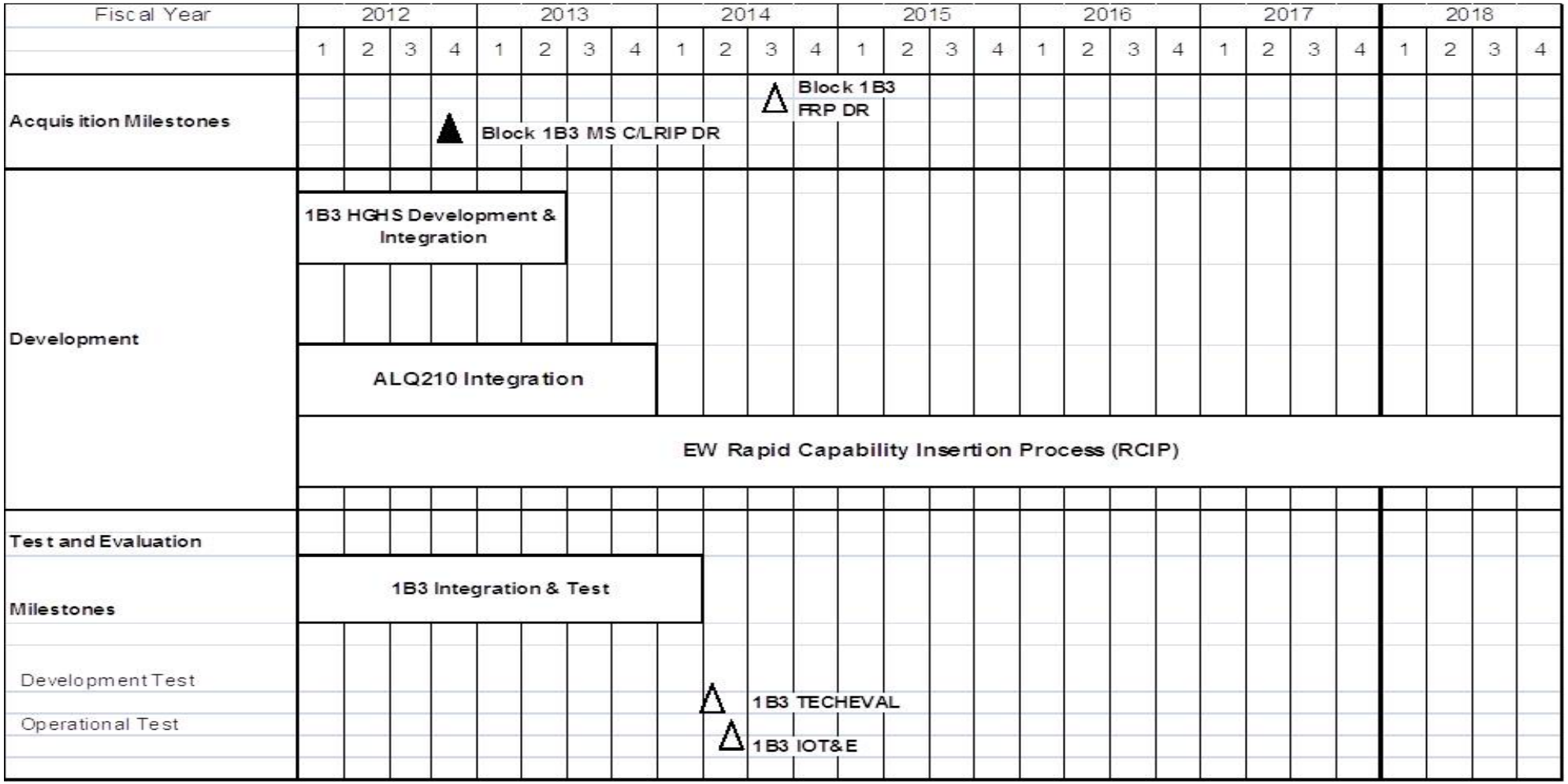


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	**PROJECT** 0954: *Shipboard EW Improvement Program*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0954				
1B3 HGHS Development & Integration	1	2012	2	2013
ALQ210 Integration	1	2012	4	2013
EW Rapid Capability Insertion Process (RCIP)	1	2012	4	2018
Block 1B3 MS C/LRIP DR	4	2012	4	2012
1B3 Integration & Test	1	2012	1	2014
Block 1B3 TECHEVAL	2	2014	2	2014
Block 1B3 IOT&E	2	2014	2	2014
Block 1B3 FRP DR	3	2014	3	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 2190: *NULKA Decoy*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2190: *NULKA Decoy*	48.876	3.432	2.352	4.611	-	4.611	6.209	3.156	8.182	8.312	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Offboard Active Decoy (NULKA) is a joint cooperative program between the United States and Australia that developed an active offboard decoy that utilizes a broadband radio frequency repeater mounted atop a hovering rocket. NULKA is designed to counter a wide variety of present and future radar guided Anti-Ship Missiles (ASMs) by radiating a large radar cross section while flying a ship-like trajectory. The United States developed the electronic payload and fire control system, while Australia developed the hovering rocket. Future efforts involve development of the capability for high value unit protection.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: NULKA Decoy Subsystem	2.020	2.352	2.508
Articles:	0	0	0
FY 2012 Accomplishments: Conducted NULKA decoy subsystem integration and improvements to include Effectiveness Studies, Engineering Studies, Fly Out Tactics and open architecture transition.			
FY 2013 Plans: Continue NULKA decoy subsystem integration and improvements to include Effectiveness Studies, Engineering Studies, Fly Out Tactics and open architecture transition.			
FY 2014 Plans: Continue NULKA decoy subsystem integration and improvements to include Effectiveness Studies, Engineering Studies, Fly Out Tactics and open architecture transition.			
Title: NULKA Software	1.412	0.000	0.000
Articles:	0		
Description:			
FY 2012 Accomplishments: Completed upgrade of Launching System software to provide CVN protection capability.			
Title: CVN AT-SEA TEST	0.000	0.000	2.103

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 2190: *NULKA Decoy*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:			0
FY 2014 Plans: Conduct At-Sea test of NULKA CVN capabilities.			
Accomplishments/Planned Programs Subtotals	3.432	2.352	4.611

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/5530: *Anti-Ship Missile Decoy System*	32.634	31.743	62.361		62.361	70.060	67.715	65.920	67.013	Continuing	Continuing
• OMN/12CR0 (1C2C): *Nulka*	6.014	5.205	6.140		6.140	6.473	6.717	7.411	7.526	Continuing	Continuing

Remarks

D. Acquisition Strategy

NULKA is a joint cooperative program between United States and Australia in full rate production.

E. Performance Metrics

Successfully complete first-of-class testing of MK 53 DLS upgrade for CVN.
Successfully complete Element Certification Decoy Launch Processor (DLP) software version 6_5 for the CVN 68 ship class.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 2190: *NULKA Decoy*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	Lockheed Martin:Sippican, MA	6.692	0.000		0.000		0.000		-		0.000	0.000	6.692	
Primary Hardware Development	MIPR	BAE Systems:Australia	7.092	0.290	Nov 2011	0.000		0.000		-		0.000	0.000	7.382	
Systems Engineering	WR	NRL:Washington, DC	15.277	1.091	Nov 2011	0.986	Nov 2012	0.896	Nov 2013	-		0.896	Continuing	Continuing	Continuing
Systems Engineering	WR	NWAD:China Lake, CA	0.120	0.000		0.000		0.000		-		0.000	0.000	0.120	
MK 53 System Eng Changes	C/FFP	Sechan:PA	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	
Systems Engineering	WR	NSWC Dahlgren:Dahlgren, VA	4.953	1.291	Nov 2011	0.929	Nov 2012	1.012	Nov 2013	-		1.012	Continuing	Continuing	Continuing
Systems Engineering	WR	NSMA:VA	0.360	0.000		0.000		0.000		-		0.000	0.000	0.360	
Systems Engineering	WR	NSWC Crane:IN	5.211	0.445	Nov 2011	0.200	Nov 2012	0.270	Nov 2013	-		0.270	Continuing	Continuing	Continuing
		Subtotal	39.855	3.117		2.115		2.178		0.000		2.178			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	NRL:Washington, DC	1.314	0.000		0.000		0.000		-		0.000	0.000	1.314	
Software Development	WR	NSWC Dahlgren:Dahlgren, VA	2.497	0.000		0.000		0.000		-		0.000	0.000	2.497	
		Subtotal	3.811	0.000		0.000		0.000		0.000		0.000	0.000	3.811	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 2190: *NULKA Decoy*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NSWC Dahlgren:Dahlgren, VA	0.700	0.000		0.000		0.575	Nov 2013	-		0.575	Continuing	Continuing	Continuing
Developmental Test & Evaluation	WR	NRL:Washington, DC	1.181	0.000		0.000		0.500	Nov 2013	-		0.500	Continuing	Continuing	Continuing
Test Assets	WR	NRL:Washington, DC	0.701	0.000		0.000		0.800	Nov 2013	-		0.800	Continuing	Continuing	Continuing
Test Support	WR	OPTEVFOR:Norfolk, VA	0.050	0.000		0.000		0.125	Nov 2013	-		0.125	Continuing	Continuing	Continuing
Test Support	WR	BAE Systems:Australia	0.050	0.000		0.000		0.125	Nov 2013	-		0.125	Continuing	Continuing	Continuing
		Subtotal	2.682	0.000		0.000		2.125		0.000		2.125			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPIF	SPA (SEAPORT):Washington, DC	0.825	0.285	Nov 2011	0.213	Jan 2013	0.281	Nov 2013	-		0.281	Continuing	Continuing	Continuing
Program Management Support	C/FFP	AT&T Gov't Solutions (SEAPORT)::Washington, DC	1.147	0.000		0.000		0.000		-		0.000	0.000	1.147	
Travel	WR	NAVSEA Program Office Travel:Washington, DC	0.541	0.030	Jan 2012	0.024	Nov 2012	0.027	Nov 2013	-		0.027	Continuing	Continuing	Continuing
DoD Acquisition Workforce Fund (DAWDF)	Various	Various:Various	0.015	0.000		0.000		0.000		-		0.000	0.000	0.015	
		Subtotal	2.528	0.315		0.237		0.308		0.000		0.308			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 2190: *NULKA Decoy*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	48.876	3.432		2.352		4.611		0.000		4.611			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 2190: *NULKA Decoy*

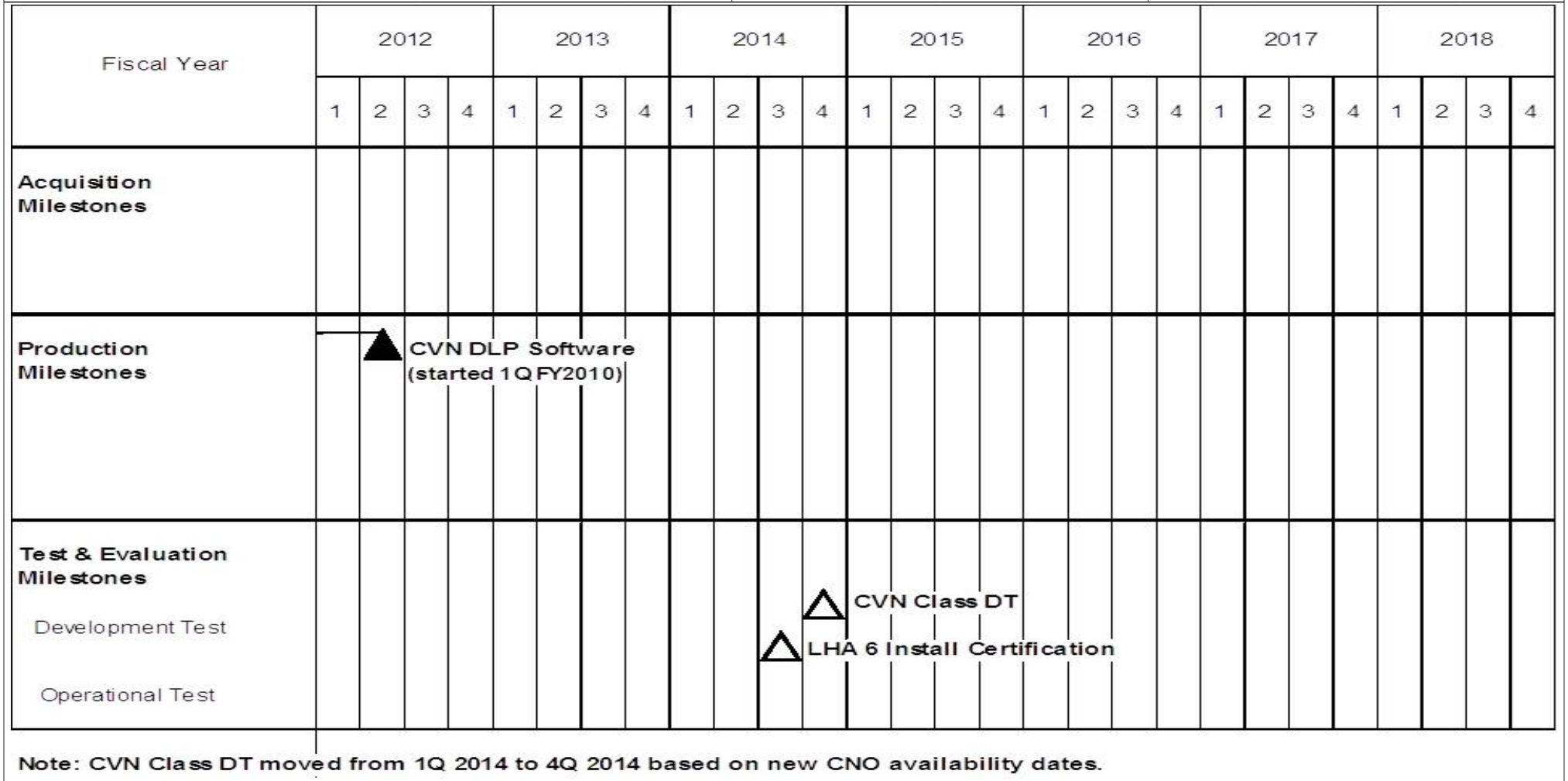


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	**PROJECT** 2190: *NULKA Decoy*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2190				
CVN DLP SOFTWARE	1	2012	2	2012
CVN CLASS DT	4	2014	4	2014
LHA 6 INSTALL CERTIFICATION	3	2014	3	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3227: *SEWIP Block 2*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3227: *SEWIP Block 2*	135.114	42.804	29.937	5.968	-	5.968	0.600	0.532	0.547	0.558	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The SEWIP Block 2 program is developing an upgraded antenna, receiver, and combat system interface for SLQ-32. The upgrades are necessary in order to pace the threat, improving detection, accuracy, and mitigation of EMI.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: SEWIP Block 2	42.804	29.937	5.968
Articles:	0	0	0
FY 2012 Accomplishments: Continued E&MD of SEWIP Block 2. Continued integrated testing.			
FY 2013 Plans: Continue E&MD of SEWIP Block 2. Complete integrated testing.			
FY 2014 Plans: Conduct At-Sea testing. Analyze and correct deficiencies.			
Accomplishments/Planned Programs Subtotals	42.804	29.937	5.968

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• 0204228N/2312: *OPN BA-2 AN/ SLQ-32(V)*	39.902	92.270	203.375		203.375	287.478	263.017	347.335	372.120	Continuing	Continuing
• 0204575N/1C2C: *OMN BA-1 AN/ SLQ-32(V)6*	0.000	1.442	3.007		3.007	6.808	8.045	14.749	14.978	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3227: *SEWIP Block 2*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

SEWIP will develop Block upgrades to SLQ-32 based on integrating technology advances and adding functional capabilities in an incremental fashion. Each Block and Sub-Block will be developed and contracted in an individual yet coordinated and overlapping fashion.

E. Performance Metrics

Successfully achieve Block 2 MS C / LRIP DR.
Successfully complete Block 2 Initial Operational Test & Evaluation (IOT&E).
Successfully achieve Block 2 Full Rate Production (FRP) DR.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3227: *SEWIP Block 2*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 E&MD	C/CPIF	Lockheed Martin:Syracuse, NY	64.944	21.583	Nov 2011	10.145	Nov 2012	1.209	Nov 2013	-		1.209	Continuing	Continuing	Continuing
Block 2 Preliminary Development	C/CPIF	Lockheed Martin:Syracuse, NY	17.211	0.000		0.000		0.000		-		0.000	0.000	17.211	
Block 2 SEWTT Development	SS/CPFF	EWA-GSI:Fairmont, WV	0.000	0.750	Dec 2011	0.750	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Block 2 SEWTT Development	WR	NSWC Crane:Crane, IN	0.000	0.047	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	82.155	22.380		10.895		1.209		0.000		1.209			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 Integrated Logistics Support	WR	NSWC Crane, DD, NRL, APL:Crane, IN; Dahlgren, VA; Washington DC; Laurel, MD	0.769	0.000		0.000		0.000		-		0.000	0.000	0.769	
Block 2 Integrated Logistics Support	WR	NSWC Crane:Crane, IN	2.175	0.783	Nov 2011	1.896	Nov 2012	0.038	Nov 2013	-		0.038	Continuing	Continuing	Continuing
Block 2 Government Engineering Support	WR	NSWC Crane, DD, NRL, APL:Crane, IN; Dahlgren, VA; Washington DC; Laurel, MD	12.214	0.000		0.000		0.000		-		0.000	0.000	12.214	
Block 2 Government Engineering Support	WR	NSWC Dahlgren:Dahlgren, VA	4.767	5.546	Nov 2011	1.932	Nov 2012	0.058	Nov 2013	-		0.058	Continuing	Continuing	Continuing
Block 2 Government Engineering Support	WR	NSWC Crane:Crane, IN	2.369	2.885	Nov 2011	1.286	Nov 2012	0.057	Nov 2013	-		0.057	Continuing	Continuing	Continuing
Block 2 Government Engineering Support	WR	NRL:Washington, DC	2.038	0.934	Dec 2011	1.166	Nov 2012	0.057	Nov 2013	-		0.057	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3227: *SEWIP Block 2*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 Government Engineering Support	SS/CPFF	APL:Laurel, MD	2.320	2.278	Dec 2011	1.913	Dec 2012	0.038	Nov 2013	-		0.038	Continuing	Continuing	Continuing
		Subtotal	26.652	12.426		8.193		0.248		0.000		0.248			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 Test Planning/T&E Events	WR	NSWC Crane, DD, NRL:Crane, IN; Dahlgren, VA; Washington DC;	1.582	0.000		0.000		0.000		-		0.000	0.000	1.582	
Block 2 Test Planning/T&E Events	WR	NSWC Crane:Crane, IN	0.827	1.551	Nov 2011	1.939	Nov 2012	1.425	Nov 2013	-		1.425	Continuing	Continuing	Continuing
Block 2 Test Planning/T&E Events	WR	NSWC Dahlgren:Dahlgren, VA	0.292	1.028	Nov 2011	2.083	Nov 2012	1.325	Nov 2013	-		1.325	Continuing	Continuing	Continuing
Block 2 Test Planning/T&E Events	WR	NRL:Washington, DC	1.418	1.815	Dec 2011	2.413	Nov 2012	1.325	Nov 2013	-		1.325	Continuing	Continuing	Continuing
Block 2 Test Planning/T&E Events	WR	Surface Combat Systems Center:Wallops Island, VA	0.000	0.442	Jan 2012	1.034	Nov 2012	0.200	Nov 2013	-		0.200	Continuing	Continuing	Continuing
		Subtotal	4.119	4.836		7.469		4.275		0.000		4.275			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 Program Management Support	C/CPIF	SPA (SEAPORT):Washington, DC	3.505	1.240	Nov 2011	1.819	Jan 2013	0.034	Nov 2013	-		0.034	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3227: *SEWIP Block 2*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 2 Program Management Support	WR	NSWC Crane, DD, PHD, NRL:Crane, IN; Dahlgren, VA; PHD CA; Washington DC;	15.069	0.000		0.000		0.000		-		0.000	0.000	15.069	
Block 2 Program Management Support	WR	NSWC Dahlgren:Dahlgren, VA	0.549	0.827	Nov 2011	0.355	Nov 2012	0.034	Nov 2013	-		0.034	Continuing	Continuing	Continuing
Block 2 Program Management Support	WR	NSWC Crane:Crane, IN	0.947	0.255	Nov 2011	0.312	Nov 2012	0.034	Nov 2013	-		0.034	Continuing	Continuing	Continuing
Block 2 Program Management Support	WR	NRL:Washington, DC	0.243	0.218	Dec 2011	0.231	Nov 2012	0.034	Nov 2013	-		0.034	Continuing	Continuing	Continuing
Block 2 Program Management Support	MIPR	Navy Post GraduateSchool:Monterey, CA	0.174	0.000		0.000		0.000		-		0.000	0.000	0.174	
Block 2 Program Management Support	SS/CPFF	APL:Laurel, MD	1.149	0.472	Dec 2011	0.538	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Block 2 Program Management	WR	NSWC PHD:Port Hueneme, CA	0.061	0.000		0.000		0.000		-		0.000	0.000	0.061	
Block 2 Travel	WR	NAVSEA Program Office Travel:Washington, DC	0.354	0.150	Nov 2011	0.125	Nov 2012	0.100	Nov 2013	-		0.100	Continuing	Continuing	Continuing
Block 2 DoD Acquisition Workforce Fund	Various	Various:Various	0.137	0.000		0.000		0.000		-		0.000	0.000	0.137	
		Subtotal	22.188	3.162		3.380		0.236		0.000		0.236			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	135.114	42.804		29.937		5.968		0.000		5.968			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3227: *SEWIP Block 2*

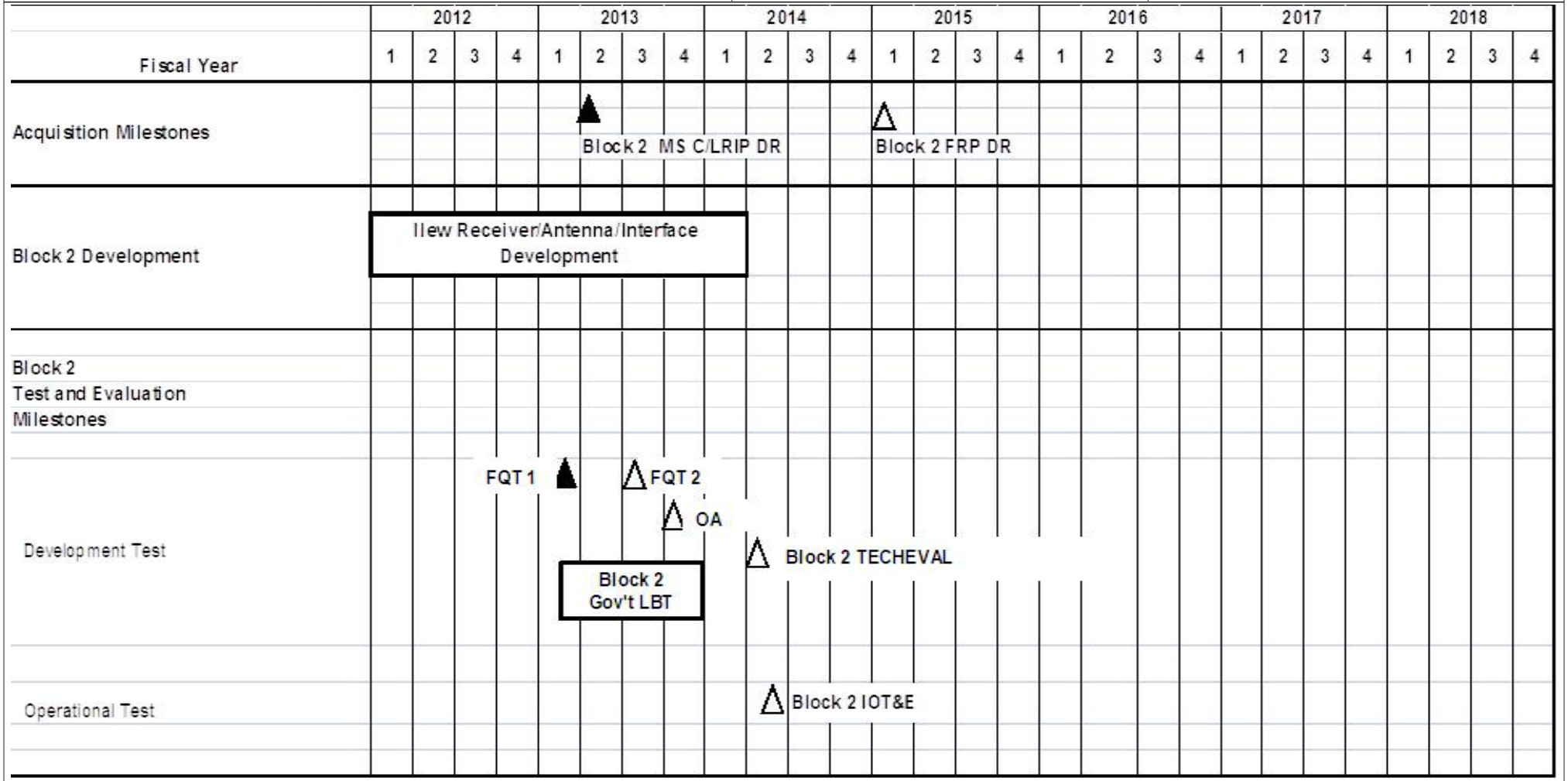


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3227: *SEWIP Block 2*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3227				
Block 2 New Receiver/Antenna/Interface Development	1	2012	1	2014
Block 2 MS C/LRIP DR	2	2013	2	2013
Block 2 FQT 1	1	2013	1	2013
Block 2 FQT 2	3	2013	3	2013
Block 2 OA	4	2013	4	2013
Block 2 Gov't LBT	1	2013	4	2013
Block 2 TECHEVAL	2	2014	2	2014
Block 2 IOT&E	2	2014	2	2014
Block 2 FRP DR	1	2015	1	2015

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3316: *Advanced Offboard EW*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3316: *Advanced Offboard EW*	0.000	22.395	23.211	23.132	-	23.132	73.955	67.045	72.687	73.819	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

3316 - The Advanced Offboard EW (AOEW) program is for the development of long duration off-board decoys integrated with onboard systems for EW coordination to counter identified EW gaps (additional details classified) in response to an urgent operational need from the Fleet that has been approved by the CNO for execution. Currently no counter to the threat exists. The program consists of a Rapid Response Effort (RRE) to provide an initial, limited decoy capability to the Fleet by 2014 and a Decoy Development Effort (DDE) culminating in the delivery of a fully supported, full capability system. The RRE (FY12-FY13) consists of the evaluation and integration of commercially available decoys. The DDE (commencing in FY12) concerns the development and evaluation of a long duration, active electronic offboard decoy system (vehicle and payload) and an onboard/offboard EW coordinator fully able to counter the threat.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: AOEW - Decoy Development Effort (DDE)	10.128	19.767	20.632
Articles:	0	0	0

FY 2012 Accomplishments:
- Initiated Analysis of Alternatives.
- Conducted systems concept designs and feasibility studies.
- Initiated development of concepts of operation.
- Initiated derivation of systems requirements.
- Initiated interoperability analysis.
- Initiated acquisition documentation development.

FY 2013 Plans:
- Complete Analysis of Alternatives.
- Conduct design and engineering studies.
- Continue development of concepts of operation.
- Continue derivation of systems requirements.
- Continue interoperability analysis.
- Continue acquisition documentation development.

FY 2014 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3316: *Advanced Offboard EW*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Continue development of concepts of operation. - Continue interoperability analysis. - Continue acquisition documentation development. - Initiate onboard/offboard EW coordinator development. - Award competitive development contract for decoy preliminary design.			
Title: AOEW - Rapid Response Effort (RRE)	12.267	3.444	2.500
Articles:	0	0	0
FY 2012 Accomplishments: Procured commercially available decoy assets for evaluation. Began integration and testing of decoy capability.			
FY 2013 Plans: Complete evaluation, integration, and testing of decoy capability. Start RRE installation.			
FY 2014 Plans: Develop conops and tactics. Complete RRE installation.			
Accomplishments/Planned Programs Subtotals	22.395	23.211	23.132

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/5530: *Anti-Ship Missile Decoy System*	32.634	31.743	62.361		62.361	70.060	67.715	65.920	67.013	Continuing	Continuing

Remarks

D. Acquisition Strategy

The AOEW DDE decoy will be competitively contracted and developed, and builds on technologies and concepts currently in development by ONR. For RRE, commercially available decoys will be procured for evaluation, integration and testing.

E. Performance Metrics

For the DDE:
Complete Analysis of Alternatives.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3316: *Advanced Offboard EW*

Complete systems requirements definition.

For the RRE:
Complete evaluation and integration.
Complete testing of commercially available decoys.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3316: *Advanced Offboard EW*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Analysis of Alternatives	WR	CNA:Alexandria, VA	0.000	0.800	Feb 2012	0.500	Dec 2012	0.000		-		0.000	0.000	1.300	Continuing
Concept Analysis and Integration Assessment	SS/CPFF	APL:Laurel, MD	0.000	0.750	Apr 2012	2.000	Nov 2012	2.000	Nov 2013	-		2.000	Continuing	Continuing	Continuing
Concept Analysis and Technology Studies	WR	MIT-LL:Boston, MA	0.000	0.000		1.000	Dec 2012	1.000	Nov 2013	-		1.000	Continuing	Continuing	Continuing
Concept Development and Technology Studies	WR	NRL:Washington, D.C.	0.000	4.422	Feb 2012	5.976	Nov 2012	5.467	Nov 2013	-		5.467	Continuing	Continuing	Continuing
Technology Development and Systems Requirements	WR	NSWC Dahlgren:Dahlgren, VA	0.000	0.550	Feb 2012	1.564	Nov 2012	3.450	Nov 2013	-		3.450	Continuing	Continuing	Continuing
Systems Requirements and Integration Studies	WR	NSWC Crane:Crane, IN	0.000	0.915	Feb 2012	1.200	Jan 2013	1.000	Nov 2013	-		1.000	Continuing	Continuing	Continuing
Concept Development and Technology Studies	WR	NAVAIR:Patuxent River, MD	0.000	0.000		0.500	Jan 2013	0.500	Nov 2013	-		0.500	Continuing	Continuing	Continuing
RRE Hardware Development	C/CPIF	Airborne Systems:UK	0.000	7.400	Aug 2012	0.000		0.000		-		0.000	0.000	7.400	Continuing
DDE Technology Development	C/CPIF	TBD:Not specified	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	0.000	14.837		12.740		13.417		0.000		13.417			

Remarks

DDE Technology Development contract will be competed and contractor name and location will be added upon contract award in FY15.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Development Support	WR	NRL:Washington, DC	0.000	3.035	Feb 2012	1.235	Nov 2012	2.000	Nov 2013	-		2.000	Continuing	Continuing	Continuing
Government Development and Engineering Support	WR	NSWC Dahlgren:Dahlgren, VA	0.000	1.150	Feb 2012	1.736	Nov 2012	1.700	Nov 2013	-		1.700	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3316: *Advanced Offboard EW*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NSWC Crane:Crane, IN	0.000	1.385	Feb 2012	2.950	Jan 2013	2.800	Nov 2013	-		2.800	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC Carderock:Bethesda, MD	0.000	0.026	Aug 2012	0.250	Nov 2012	0.250	Nov 2013	-		0.250	Continuing	Continuing	Continuing
Systems Engineering Support	SS/CPFF	APL:Laurel, MD	0.000	0.000		0.550	Nov 2012	0.250	Nov 2013	-		0.250	Continuing	Continuing	Continuing
		Subtotal	0.000	5.596		6.721		7.000		0.000		7.000			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Planning and Development Testing	WR	NRL:Washington, DC	0.000	0.250	Feb 2012	1.000	Nov 2012	0.200	Nov 2013	-		0.200	Continuing	Continuing	Continuing
Test Planning and Development Testing	WR	NSWC/ Dahlgren:Dahlgren, VA	0.000	0.100	Feb 2012	0.330	Nov 2012	0.200	Nov 2013	-		0.200	Continuing	Continuing	Continuing
Test Planning and Development Testing	WR	NSWC Crane:Crane, IN	0.000	0.200	Feb 2012	0.570	Jan 2013	0.200	Nov 2013	-		0.200	Continuing	Continuing	Continuing
		Subtotal	0.000	0.550		1.900		0.600		0.000		0.600			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPIF	SPA (SEAPORT):Washington, DC	0.000	1.378	Feb 2012	1.800	Jan 2013	2.065	Nov 2013	-		2.065	Continuing	Continuing	Continuing
Travel	WR	NAVSEA Program Office	0.000	0.034	Feb 2012	0.050	Nov 2012	0.050	Nov 2013	-		0.050	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3316: *Advanced Offboard EW*

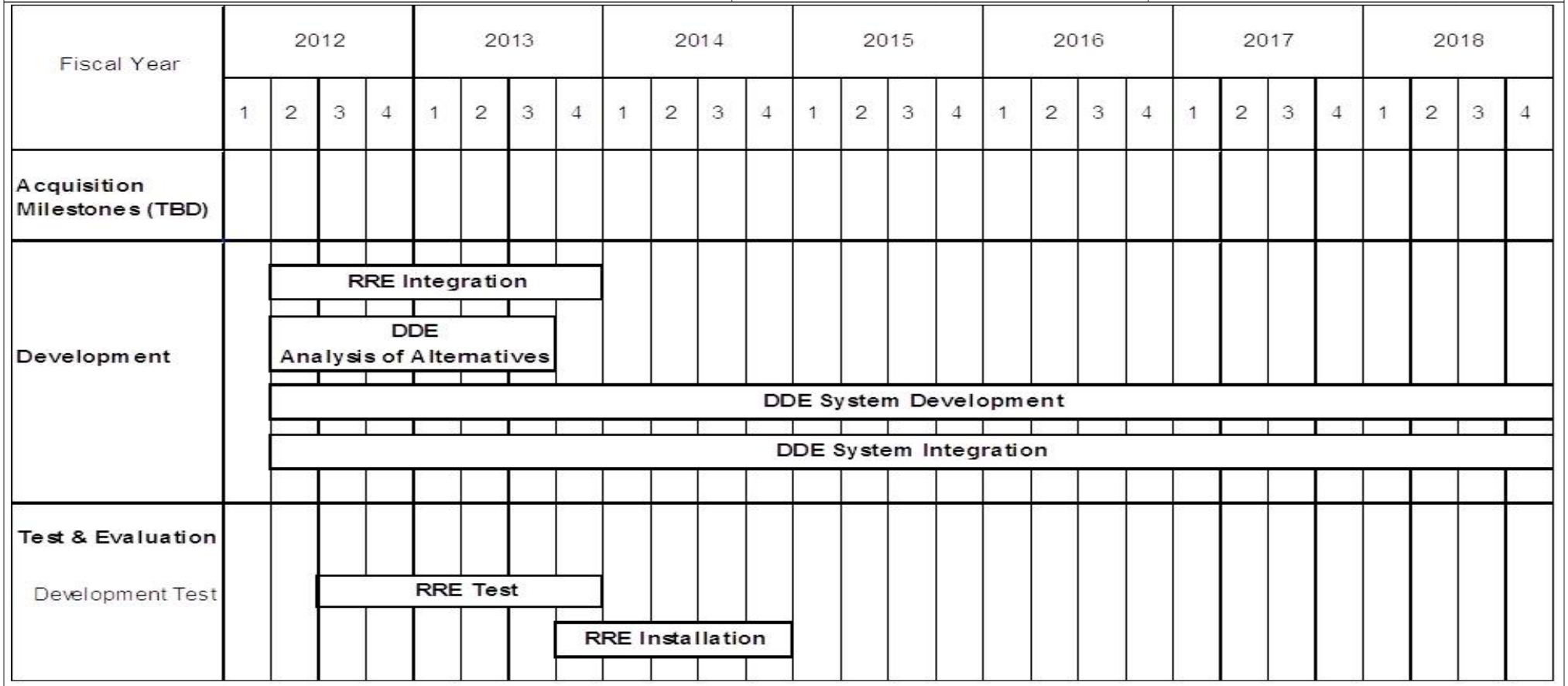
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Travel:Washington, DC													
		Subtotal	0.000	1.412		1.850		2.115		0.000		2.115			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	22.395		23.211		23.132		0.000		23.132			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3316: *Advanced Offboard EW*



RRE: Rapid Response Effort

DDE: Decoy Development Effort

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	**PROJECT** 3316: *Advanced Offboard EW*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3316				
RRE Integration	2	2012	4	2013
DDE Analysis of Alternatives	2	2012	3	2013
DDE System Development	2	2012	4	2018
DDE System Integration	2	2012	4	2018
RRE Test	3	2012	4	2013
RRE Installation	4	2013	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3321.: *SEWIP Block 3*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3321.: *SEWIP Block 3*	14.691	92.422	77.495	108.300	-	108.300	91.201	49.374	45.169	45.869	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Decrease in FY14 funding is due to equipment testing phase.

A. Mission Description and Budget Item Justification

SEWIP Block 3 will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ-32(V) system to keep pace with the threat. SEWIP Block 3 will provide a common EA capability to all surface combatants (CVN, CG, DDG, LHD) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new-construction platforms.

The SEWIP Block 3 Acquisition leverages technology developed under the Office of Naval Research's (ONR) Integrated Topside (InTop) Science and Technology (S&T) effort. SEWIP Block 3 will continue to expand the integrated shipboard combat system by providing a new integrated Electronic Attack (EA) transmitter, array, and associated EA techniques. The program builds on the EW Support (ES) capability delivered by SEWIP Blocks 1 and 2.

SEWIP Block 3 includes development and initial, limited interim capability by 2014 of a focused application of the Naval Research Lab (NRL) Transportable EW Module (TEWM) system to support an urgent operational need.
The TEWM Speed to Fleet effort develops the TEWM system capability for engaging a wide range of anti-ship missile seekers to address the broader EW capability gap. This effort provides the resources to refine and accelerate the design, make it suitable for operational shipboard application, and implements a network command protocol to efficiently allow use on broad class of ships.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: SEWIP Block 3	23.327	19.452	18.010
Articles:	0	0	0
FY 2012 Accomplishments: Commenced MS B preparation; including System Engineering, Technology Readiness Assessment (TRA), and acquisition documentation.			
FY 2013 Plans: Complete MS B preparation, Technology Readiness Assessment (TRA), and acquisition documentation.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3321.: *SEWIP Block 3*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue Systems Engineering. ***FY 2014 Plans:*** Continue Systems Engineering and Acquisition Process Management.			
Title: SEWIP Block 3 Development ***Articles:*** ***FY 2013 Plans:*** Commence Preliminary Design. ***FY 2014 Plans:*** Commence Engineering and Manufacturing Development (E&MD).	0.000 0	33.552 0	79.297 0
Title: SEWIP Block 3 ADM Integration and Test ***Articles:*** ***FY 2012 Accomplishments:*** Completed SEWIP Block 3 INTOP ADM Integration and Test	12.359 0	0.000	0.000
Title: SEWIP Block 3 ADM Hardware and Software ***Articles:*** ***FY 2012 Accomplishments:*** Completed Hardware and Software prototyping of the INTOP ADM, including Design, Code, and Unit Test.	11.780 0	0.000	0.000
Title: SEWIP Block 3 ADM Design ***Articles:*** ***FY 2012 Accomplishments:*** Completed Non-recurring Hardware Design of the INTOP ADM Integration and Test.	13.056 0	0.000	0.000
Title: TEWM Development ***Articles:*** ***FY 2012 Accomplishments:*** Commenced development of modifications to the TEWM system. ***FY 2013 Plans:*** Continue development of modifications to the TEWM system. ***FY 2014 Plans:***	25.910 0	16.599 0	0.996 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3321.: *SEWIP Block 3*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Complete development of modifications to the TEWM system.			
Title: TEWM Testing	4.730	2.994	6.954
Articles:	0	0	0
FY 2012 Accomplishments: Commenced TEWM test planning and coordination. Commenced TEWM Simulator and Radar test platform support.			
FY 2013 Plans: Continue TEWM test planning and coordination. Continue TEWM Simulator and Radar test platform support. Commence testing.			
FY 2014 Plans: Complete TEWM testing. Complete TEWM Simulator and Radar test platform support.			
Title: TEWM System Engineering	1.260	0.907	2.050
Articles:	0	0	0
FY 2012 Accomplishments: Commenced TEWM systems engineering.			
FY 2013 Plans: Continue TEWM systems engineering and integration.			
FY 2014 Plans: Complete TEWM systems engineering and integration.			
Title: Speed to Fleet- Transportable Electronic Warfare Module (TEWM)	0.000	3.991	0.993
Articles:		0	0
FY 2013 Plans: - Refine design shortfalls based on operator feedback and FY 2012 test results. - Conduct local field testing of all improvements design, and complete drawings. - Complete and deliver two units.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3321.: *SEWIP Block 3*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
- Test equipment at sea.			
Accomplishments/Planned Programs Subtotals	92.422	77.495	108.300

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• 0204228N/2312: *AN/SLQ-32*	39.902	92.270	203.375		203.375	287.478	263.017	347.335	372.120	Continuing	Continuing

Remarks

D. Acquisition Strategy

SEWIP will develop block upgrades to SLQ-32 based on integrating technology advances and adding functional capabilities in an incremental fashion. Each block and sub-block will be developed and contracted in an individual yet coordinated and overlapping fashion. Specifically, SEWIP Block 3 involves the transitioning and leveraging of work performed under the INTOP program sponsored by ONR, which focused on designing/architecting an integrated Electronic Attack (EA), Information Operations (IO), and Line of Site (LOS) Comms system for Naval Surface Platforms. SEWIP Block 3 also leverages work performed under the TEWM program that is sponsored by NRL that focuses on technique development and active engagement analysis/modeling for Naval surface combatants.

TEWM is a non-acquisition development and demonstration program to rapidly deliver advanced counter terminal EW capability in a transportable form factor for Fleet application. The units developed under this Speed to Fleet project provides a rapidly deployable capability. Multiple copies of the first articles can be rapidly replicated depending on operational needs.

E. Performance Metrics

Achieve Block 3 Milestone B.
Achieve Block 3 MS C / LRIP DR.
Complete TEWM development.
Complete TEWM integration and testing.
Complete laboratory and at-sea testing against captive carry simulators.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3321.: *SEWIP Block 3*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Technology Demonstration	SS/CPFF	Northrop Grumman: Linthicum, MD:Raytheon: Tewksbury, MA	0.000	37.195	Dec 2011	0.000		0.000		-		0.000	0.000	37.195	
TEWM Primary Hardware Development	C/CPFF	ITT Exelis:Alexandria, VA	0.000	25.910	Feb 2012	18.787	Nov 2012	0.996	Nov 2013	-		0.996	Continuing	Continuing	Continuing
Block 3 Preliminary Design	C/CPIF	TBD:TBD	0.000	0.000		33.052	Nov 2013	13.900	Nov 2013	-		13.900	0.000	46.952	
Block 3 E&MD	C/CPIF	TBD:TBD	0.000	0.000		0.000		64.197	Mar 2014	-		64.197	Continuing	Continuing	Continuing
Block 3 SEWTT Development	SS/CPFF	EWA-GSI:Fairmont, WV	0.100	0.500	Dec 2011	0.500	Dec 2012	1.200	Nov 2013	-		1.200	Continuing	Continuing	Continuing
		Subtotal	0.100	63.605		52.339		80.293		0.000		80.293			

Remarks

TEWM is a new development effort beginning in FY12. Block 3 Preliminary Design and E&MD contracts will be competed and contractor name and location will be added upon contract award.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Integrated Logistics Support	WR	NSWC Crane:Crane, IN	0.391	2.190	Nov 2011	1.113	Nov 2012	0.707	Nov 2013	-		0.707	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	WR	NSWC Dahlgren:Dahlgren, VA	0.578	2.062	Nov 2011	1.015	Nov 2012	0.642	Nov 2013	-		0.642	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	WR	NSWC Crane:Crane, IN	0.087	0.874	Nov 2011	0.484	Nov 2012	0.316	Nov 2013	-		0.316	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	WR	NRL:Washington, DC	2.110	2.899	Dec 2011	2.845	Nov 2012	1.801	Nov 2013	-		1.801	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	SS/CPFF	APL:Laurel, MD	0.711	3.208	Dec 2011	2.398	Nov 2012	1.485	Nov 2013	-		1.485	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3321.: *SEWIP Block 3*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Government Engineering Support	WR	MIT-LL:Cambridge, MA	0.000	0.700	Dec 2011	0.812	Jan 2013	1.234	Nov 2013	-		1.234	Continuing	Continuing	Continuing
Block 3 Government Engineering Support	WR	GTRI:Atlanta, GA	0.000	0.700	Dec 2011	0.471	Apr 2013	1.234	Nov 2013	-		1.234	Continuing	Continuing	Continuing
TEWM Systems Engineering	WR	NRL:Washington, DC	9.000	1.260	Dec 2011	0.907	Nov 2012	2.050	Nov 2013	-		2.050	0.000	13.217	Continuing
		Subtotal	12.877	13.893		10.045		9.469		0.000		9.469			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Test Planning/T&E Events	WR	NSWC Dahlgren:Dahlgren, VA	0.011	1.475	Nov 2011	1.169	Nov 2012	1.286	Nov 2013	-		1.286	Continuing	Continuing	Continuing
Block 3 Test Planning/T&E Events	WR	NSWC Crane:Crane, IN	0.012	0.961	Nov 2011	0.830	Nov 2012	0.916	Nov 2013	-		0.916	Continuing	Continuing	Continuing
Block 3 Test Planning/T&E Events	WR	NRL:Washington, DC	0.244	2.107	Dec 2011	2.903	Nov 2012	3.232	Nov 2013	-		3.232	Continuing	Continuing	Continuing
TEWM Test ing	WR	NRL:Washington, DC	0.000	2.049	Dec 2011	2.994	Nov 2012	6.954	Nov 2013	-		6.954	0.000	11.997	Continuing
Developmental Test and Evaluation (Speed to Fleet)	Reqn	NRL:Washington DC	0.000	0.000		3.991	Oct 2012	0.993	Feb 2014	-		0.993	0.000	4.984	4.984
		Subtotal	0.267	6.592		11.887		13.381		0.000		13.381			

Remarks

TEWM is a new development effort beginning in FY12.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3321.: *SEWIP Block 3*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 3 Program Management Supoort	C/CPIF	SPA (SEAPORT):Washington, DC	1.228	5.099	Nov 2011	0.000		2.188	Nov 2013	-		2.188	Continuing	Continuing	Continuing
Block 3 Program Management Supoort	WR	NSWC Dahlgren:Dahlgren, VA	0.029	0.972	Nov 2011	0.947	Nov 2012	0.848	Nov 2013	-		0.848	Continuing	Continuing	Continuing
Block 3 Program Management Supoort	WR	NSWC Crane:Crane, IN	0.044	1.077	Nov 2011	0.963	Nov 2012	0.879	Nov 2013	-		0.879	Continuing	Continuing	Continuing
Block 3 Program Management Supoort	WR	NRL:Washington, DC	0.118	1.084	Dec 2011	1.214	Nov 2012	1.117	Nov 2013	-		1.117	Continuing	Continuing	Continuing
Block 3 Travel	WR	NAVSEA Program Office:Washington, DC	0.028	0.100	Nov 2011	0.100	Nov 2012	0.125	Nov 2013	-		0.125	Continuing	Continuing	Continuing
		Subtotal	1.447	8.332		3.224		5.157		0.000		5.157			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	14.691	92.422		77.495		108.300		0.000		108.300			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3321.: *SEWIP Block 3*

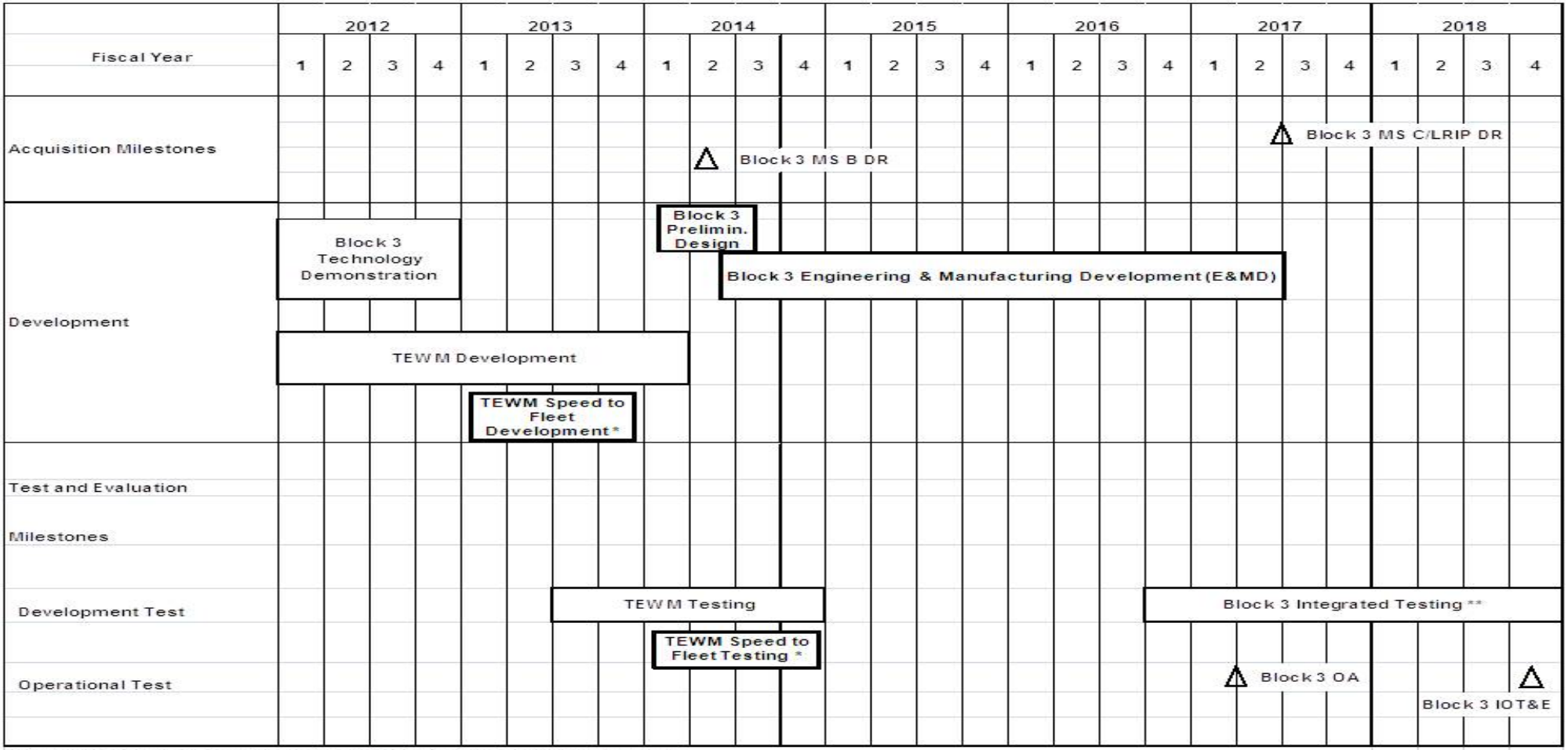


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3321.: *SEWIP Block 3*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3321.L24				
Block 3 Technology Demonstration	1	2012	4	2012
TEWM Development	1	2012	1	2014
TEWM Speed to Fleet Development (*Efforts are managed and executed by BSO 14 (ONR))	1	2013	4	2013
Block 3 Preliminary Design	1	2014	3	2014
TEWM Testing	3	2013	4	2014
Block 3 MS B DR	2	2014	2	2014
TEWM Speed to Fleet Testing (*Efforts are managed and executed by BSO 14 (ONR))	1	2014	4	2014
Block 3 Engineering and Manufacturing Development (E&MD)	2	2014	2	2017
Block 3 Integrated Testing	4	2016	4	2018
Block 3 Operational Assessment	1	2017	1	2017
Block 3 MS C/LRIP DR	2	2017	2	2017
Block 3 IOT&E	4	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3362: *E-NULKA*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3362: *E-NULKA*	0.000	0.000	0.000	4.867	-	4.867	22.766	40.453	46.245	20.114	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

E-Nulka is an upgrade to the Nulka decoy to expand frequency coverage to counter an emerging class of Anti-Ship Missiles (ASMs) for which no active countermeasure currently exists. The Program supports the engineering development of the payload receiver, signal processor and transmitter, construction of complete payloads, integration of the completed payload with the Nulka vehicle, and subsequent technical and operational assessment.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: E-Nulka Decoy	0.000	0.000	4.867
Articles:			0
FY 2014 Plans: Define system requirements and specifications. Conduct modeling and simulation. Develop Acquisition Documentation.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	4.867

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

E-Nulka is a new start program in FY14 which supports the engineering development/enhancement of the payload receiver, transmitter, signal processor and power supply. The E-Nulka payload will be competitively contracted and developed to be integrated into the existing Nulka flight vehicle. The payload builds on technologies and concepts currently in development by the Office of Naval Research (ONR).

E. Performance Metrics

Complete system requirements development.
Complete system development and integration.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3362: *E-NULKA*

Complete development testing.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3362: *E-NULKA*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	MIPR	BAE Systems:Australia	0.000	0.000		0.000		0.900	Nov 2013	-		0.900	Continuing	Continuing	Continuing
Systems Engineering	WR	NRL:Washington, D.C.	0.000	0.000		0.000		1.852	Nov 2013	-		1.852	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC Dahlgren:Dahlgren, VA	0.000	0.000		0.000		0.650	Nov 2013	-		0.650	Continuing	Continuing	Continuing
Systems Engineering	WR	NSWC Crane:Crane, IN	0.000	0.000		0.000		0.400	Nov 2013	-		0.400	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		3.802		0.000		3.802			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Development Support	WR	NRL:Washington, D.C.	0.000	0.000		0.000		0.100	Nov 2013	-		0.100	Continuing	Continuing	Continuing
Government Development and Engineering Support	WR	NSWC Dahlgren:Dahlgren, VA	0.000	0.000		0.000		0.100	Nov 2013	-		0.100	Continuing	Continuing	Continuing
Government Engineering Support	WR	NSWC Crane:Crane, IN	0.000	0.000		0.000		0.100	Nov 2013	-		0.100	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		0.300		0.000		0.300			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Planning and Developmental Testing	WR	NRL:Washington, D.C.	0.000	0.000		0.000		0.167	Nov 2013	-		0.167	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	PROJECT 3362: *E-NULKA*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation Plan	WR	NSWC Dahlgren:Dahlgren, VA	0.000	0.000		0.000		0.167	Nov 2013	-		0.167	Continuing	Continuing	Continuing
Test & Evaluation Plan	WR	NSWC Crane:Crane, IN	0.000	0.000		0.000		0.166	Nov 2013	-		0.166	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		0.500		0.000		0.500			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPIF	SPA (SEAPORT):Washington, D.C.	0.000	0.000		0.000		0.250	Nov 2013	-		0.250	Continuing	Continuing	Continuing
Travel	WR	NAVSEA Program Office Travel:Washington, D.C.	0.000	0.000		0.000		0.015	Nov 2013	-		0.015	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		0.265		0.000		0.265			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		4.867		0.000		4.867			

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2014 Navy		**DATE:** April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	**PROJECT** 3362: *E-NULKA*

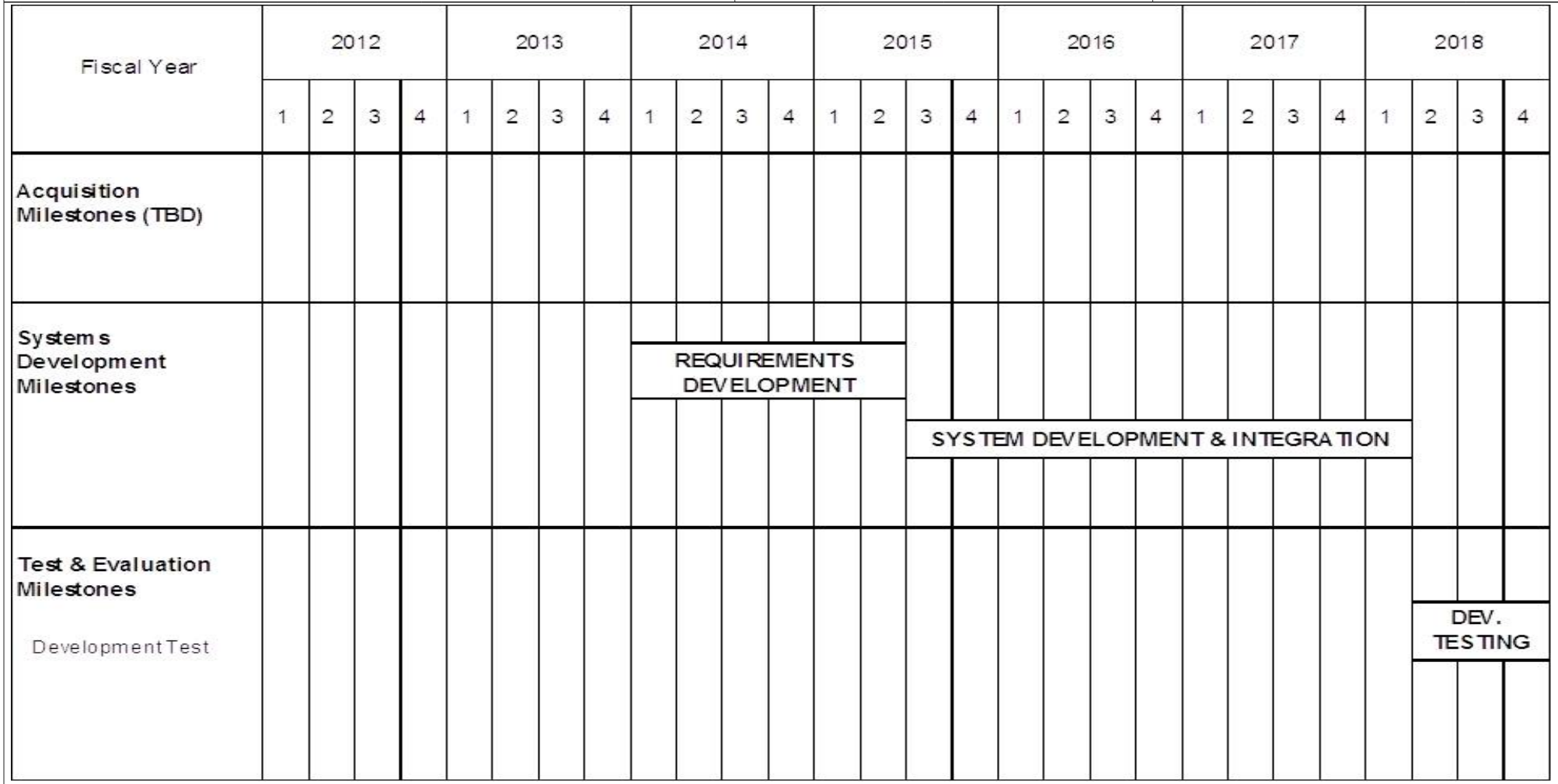


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604757N: *Ship Self Def (Engage: Soft Kill/EW)*	**PROJECT** 3362: *E-NULKA*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3362				
Requirements Development	1	2014	2	2015
System Development	3	2015	1	2018
Development Testing	2	2018	4	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604761N: *Intelligence Engineering*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	1.358	2.196	0.000	1.984	-	1.984	0.200	4.389	4.244	4.320	Continuing	Continuing
3103: *Intelligence Engineering*	1.358	2.196	0.000	1.984	-	1.984	0.200	4.389	4.244	4.320	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This RDTEN project is the Navy Foreign Materiel Project (FMP). The FMP provides high leverage cost benefit through acquisition of foreign manufactured equipment with military application and potential military application and the subsequent exploitation of that materiel for the development of countermeasures and tactics.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	2.196	0.000	0.000	-	0.000
Current President's Budget	2.196	0.000	1.984	-	1.984
Total Adjustments	0.000	0.000	1.984	-	1.984
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	2.527	-	2.527
• Rate/Misc Adjustments	0.000	0.000	-0.543	-	-0.543

Change Summary Explanation

AMAC program was discontinued after FY12. Funding was reestablished to the FMP program beginning in FY14. A reduction to FY 14 impacts FMP requirements to acquire foreign threat systems. This will degrade ongoing and new developmental work at Navy laboratories that are developing and enhancing countermeasures for U.S. Navy platforms based upon FMP programs. The potential result is an increase in the vulnerability of USN platforms to currently fielded threat systems. Also impacts our ability to respond to short-fuse Navy FMA opportunities.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604761N: *Intelligence Engineering*	PROJECT 3103: *Intelligence Engineering*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3103: *Intelligence Engineering*	1.358	2.196	0.000	1.984	-	1.984	0.200	4.389	4.244	4.320	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

(U) The FMP provides high leverage cost benefit through acquisition of foreign manufactured equipment with military application and potential military application and the subsequent exploitation of that materiel for development of deployable countermeasures and tactics.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Intelligence Engineering	2.196	0.000	1.984
Articles:	0		0
FY 2012 Accomplishments: Technology Integration and Transition (AMAC) $2.196			
FY 2014 Plans: Foreign Materiel Acquisition $1.984			
Accomplishments/Planned Programs Subtotals	2.196	0.000	1.984

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The FMP satisfies USN operational, RDT&E, and intelligence requirements from an annual prioritized list. This list is also used to identify which acquisition opportunities will obtain priority for a share of the funding. After a formalized acquisition approval process for each project, the FMP utilizes various contracting offices to write and execute individual contracts for the prioritized hardware.

E. Performance Metrics

Program direction is dependent upon guidance provided by 6 warfare area planning groups.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604761N: *Intelligence Engineering*	PROJECT 3103: *Intelligence Engineering*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Intellipubia	MIPR	DIA:Bolling AFB	0.267	0.000		0.000		0.000		-		0.000	0.000	0.267	
ELINT Tagging	C/FFP	NRL:Washington, DC	0.100	0.785	Oct 2011	0.000		0.000		-		0.000	0.400	1.285	
Analyst Technology Enhancement	MIPR	CECOM LCMC:Washington, DC	0.991	0.429	Mar 2012	0.000		0.000		-		0.000	5.521	6.941	
Analyst Tool Enhancement	C/FFP	NRL:Washington, DC	0.000	0.589	Jan 2012	0.000		0.000		-		0.000	3.944	4.533	
EMS&C WG Project A	SS/FFP	FMASO Hill AFB:Washington, DC	0.000	0.000		0.000		0.759	Oct 2013	-		0.759	Continuing	Continuing	Continuing
EMS&C WG Project B	SS/FFP	FMASO Hill AFB:Washington, DC	0.000	0.000		0.000		0.600	Jan 2014	-		0.600	Continuing	Continuing	Continuing
Intellipubia	C/FFP	NSMA:Washington, DC	0.000	0.393	Apr 2012	0.000		0.000		-		0.000	0.000	0.393	
FTCPG Project A	SS/FFP	NSWC:Panama City	0.000	0.000		0.000		0.625	Dec 2013	-		0.625	Continuing	Continuing	Continuing
FASMWG Project A	MIPR	NRL:Washington, DC	0.000	0.000		0.000		0.000	Dec 2013	-		0.000	0.000	0.000	
		Subtotal	1.358	2.196		0.000		1.984		0.000		1.984			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.358	2.196		0.000		1.984		0.000		1.984			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604761N: *Intelligence Engineering*	PROJECT 3103: *Intelligence Engineering*

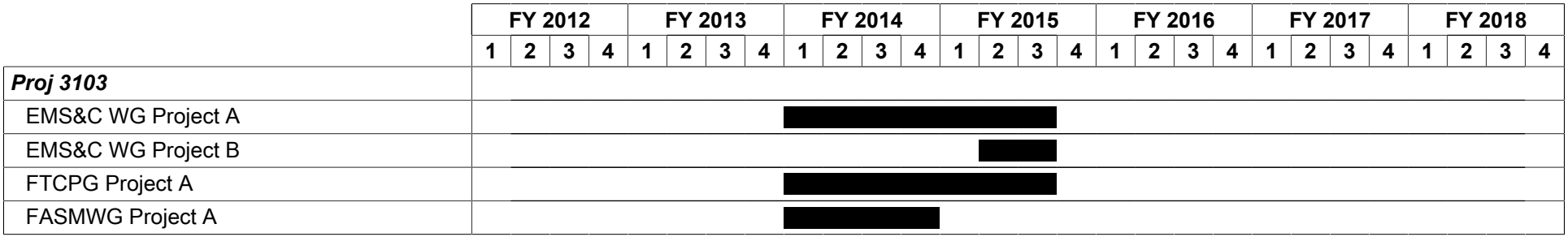


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604761N: *Intelligence Engineering*	PROJECT 3103: *Intelligence Engineering*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3103				
EMS&C WG Project A	1	2014	3	2015
EMS&C WG Project B	2	2015	3	2015
FTCPG Project A	1	2014	3	2015
FASMWG Project A	1	2014	4	2014

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	25.948	32.118	14.880	9.458	-	9.458	9.643	10.225	10.394	10.011	Continuing	Continuing
0933: *Medical/Dental Equipment Dev*	9.234	14.018	14.880	9.458	-	9.458	9.643	10.225	10.394	10.011	Continuing	Continuing
9999: *Congressional Adds*	16.714	18.100	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	34.814

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The purpose of this budget item is to develop biomedical equipment and related techniques to reduce morbidity; to enhance the logistic feasibility of modern medical care for combat casualties; to sustain casualties for evacuation to fixed medical facilities for definitive care; and to ensure that personnel are medically qualified for military duty. There is a strong potential for dual use, technology transfer, and biotechnology firms/industry participation in the projects.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	33.034	12.707	9.471	-	9.471
Current President's Budget	32.118	14.880	9.458	-	9.458
Total Adjustments	-0.916	2.173	-0.013	-	-0.013
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.041	0.000			
• SBIR/STTR Transfer	-0.875	0.000			
• Rate/Misc Adjustments	0.000	2.173	-0.013	-	-0.013

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Project: 9999: *Congressional Adds*		
Congressional Add: *Military Dental Research*	5.100	-
Congressional Add: *Wound Care Research (transferred from Defense Health Program)*	13.000	-
Congressional Add Subtotals for Project: 9999	18.100	0.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604771N: *Medical Development*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Congressional Add Totals for all Projects	18.100	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0933: *Medical/Dental Equipment Dev*	9.234	14.018	14.880	9.458	-	9.458	9.643	10.225	10.394	10.011	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The purpose of this budget item is to develop biomedical equipment and related techniques to reduce morbidity; to enhance the logistic feasibility of modern medical care for combat casualties; to sustain casualties for evacuation to fixed medical facilities for definitive care; and to ensure that personnel are medically qualified for military duty. Each work unit undertaken in this project has a military requirement. Efforts are justified based upon military payoff and cost benefit. There is a strong potential for dual use, technology transfer, and biotechnology firms/industry participation in the projects.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Medical/Dental Equipment Dev	12.068	12.707	9.458
Articles:	0	0	0

FY 2012 Accomplishments:

Wound Management Program - Integrate efforts in wound closure, Hyperspectral Imaging, Heterotopic Ossification, and stem cell applications for wound repair. The system will provide improved diagnostic measures of wound healing.

Monitoring, Oxygen Ventilation and External Suction (MOVES) System -Continued effort toward providing enhance capability for enhance control module & cardiovascular monitoring.

Intranasal Carbon Dioxide for Headache and Trigeminal Muscle Pain - Continued efforts to provide an abortive migraine therapy with minimal side effects and high efficacy for use on deployment and in Military Treatment Facilities. Lead study data integrator identified to coordinate research sites.

Attenuated Sporozoite Malaria Vaccine for Military Personnel - Continued augmented efforts with the ongoing clinical trial effort to test, for safety and efficacy, a militarily relevant malaria vaccine regimen utilizing a promising novel vaccine candidate.

Impact of Marine Suicide on Family Survivors - Penn State will examine factors predicting resilience and well-being of Marine Corps families and determine needs addressable by intervention techniques.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
USMC Suicide Prevention Program Resiliency Study and Related Efforts - Initiate research leveraging the Marine Resiliency study, adding targeted studies of Marines that may be applicable to larger cohorts. Proposed aims include addition of assessments to include 12-month after deployment return to determine risk for chronic PTSD and potential factors for mitigation. Effort includes assessment of postvention efforts and psychological studies. Implementation of an Alternative Watchstanding Schedule on Navy Surface Combatants - Initiate study to analyze individualized fatigue-mitigated scheduling. Human Factors Support of OWL Tool - initiate development of systems-design tool in support of the Pulsar Informatics project in order to: coordinate fleet user survey; perform task analysis; assist GUI layout and design; collaborate on experimental design and submit IRB protocols; and generate technical reports. Intranasal Scopolamine - Initiate study for the prevention of motion sickness in dynamic military environments. Battalion Aid Station (BAS) Capabilities Study - Initiate study to conduct analysis on the current state of BAS configuration used by Marine Ground Combat Element (GCE) during garrison, contingency operations and support of Marine Air Combat Elements (ACE) Clinical Trials Site Expansion for Biomarkers - Biomarker study and clinical trials site expansion in support of Wound Management Program. Treatment Response Modeling for Crew Injuries Resulting from Weapons Attack - Completed refinement of model for medical chain requirements for evacuation patient outcomes. Determined probabilistic representation of mortality function and coordinated with software developer to ensure interoperability with the Office of Naval Research. SUBSCREEN Modification - The submarine duty psychological screening test, SUBSCREEN, required modification and validation for mixed gender use; this modification study will execute these functions. Biosurveillance Information Service (BioServ) - Develop a Biosurveillance Information Service (BioServ) to enable access to multiple data sets related to current and projected health risks enhancing force health protection and mission readiness at all levels. Rapid Blood Typing for Role II Units with Naval Medical Research Unit - San Antonio (NAMRU-SA) - Compare automated blood typing industry standard against proposed kit.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Validation of Computerized Color Vision Tests for Use in Naval Aviation - Commence evaluation of new, more sensitive, instruments developed to detect and diagnose color vision deficiencies for potential use to screen candidates for color deficiencies that may compromise safety and operational performance in next generation military aviation platforms. Sterilucent Sterilizer - develop a portable, efficient sterilizer that operates off standard power supplies, has a low temperature process and a fast turn around time. Done in conjunction with MARCORSYSCOM Noise-Induced Hearing Loss: Administration of NAC and HPN-07-Clinical Trials - Advance the commercialization of NHPN-1010 by completing the toxicology, pharmacokinetic and animal efficacy and dose optimization studies. Synthetic Platelets in Swine Liver Injury Model - Develop an intravenous infusible nanoparticle product to promote hemostasis and survival following a liver injury in swine. Clinical Trials Site Expansion for Biomarkers - Biomarker study and clinical trials site expansion in support of Wound Management Program. Individualized Fatigue-Based Scheduling and Countermeasure System - Initial study is underway for development of a tool that predicts, prevents, detects, and mitigates periods of high risk associated with fatigue. Research leveraged is based upon an effort funded by the Office of Naval Research.			
FY 2013 Plans: Mobile Oxygen Ventilation and External Suction (MOVES) Anesthesia - Moving toward completing development of MOVES anesthesia module. This device is a pre-planned product improvement for FRSS deployment for MTFs, Medicine Clinics, Corpsman, and Navy or USMC Special Operations. Joint effort to result in Marine Corps procurement. Wound Management Program - Continued integration efforts in wound closure, Hyperspectral Imaging, Heterotopic Ossification, and stem cell applications for wound repair. The system will provide improved diagnostic measures of wound healing. SUBSCREEN Modification - This study will be completed and result in the required modification and validation of SUBSCREEN for mixed gender use. Intranasal Carbon Dioxide for Headache and Trigeminal Muscle Pain - Complete study supporting provision of an abortive migraine therapy with minimal side effects and high efficacy for use on deployment and in Military Treatment Facilities.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Individualized Fatigue-Based Scheduling and Countermeasure System - Continue research supporting development of a tool that predicts, prevents, detects, and mitigates periods of high risk associated with fatigue. Coordinate with the Office of Naval Research to facilitate transition. USMC Suicide Prevention Program Resiliency Study and Related Efforts - Continue research leveraging the Marine Resiliency study and the execution of targeted studies of Marines. Address aims including addition of assessments to include 12-month after deployment return to determine risk for chronic PTSD and potential factors for mitigation. Effort includes assessment of postvention efforts and psychological studies. Joint Development Projects with MARCORSYSCOM Medical Acquisition - Continue Joint Development Testing and Evaluation program for medical products and equipment. Finalize development for USMC Procurement. Transition Projects from Force Health Protection Future Capability - Continue Development, Testing, and Evaluation program for transition products from the Office of Naval Research 6.3 Advanced Development program. Focus will be on transition of novel hemostatic agents (e.g. infusible hemostatics and field/first responder devices). Attenuated Sporozoite Malaria Vaccine for Military Personnel - Complete augmented efforts with the ongoing clinical trial effort to test, for safety and efficacy, a militarily relevant malaria vaccine regimen utilizing a promising novel vaccine candidate. Individualized Fatigue-Based Scheduling and Countermeasure System - Complete research supporting development of a tool that predicts, prevents, detects, and mitigates periods of high risk associated with fatigue. Periods of high individualized performance risk will be predicted and prevented by providing individual, specific, and fatigue optimized schedules and mitigation strategies. USMC Suicide Prevention Program Resiliency Study and Related Efforts - Complete research leveraging the Marine Resiliency study and the execution of targeted studies of Marines. Address aims including addition of assessments to include 12-month after deployment return to determine risk for chronic PTSD and potential factors for mitigation. Effort includes assessment of postvention efforts and psychological studies. Biosurveillance Information Service (BioServ) - Define decision rules for data sources to allow for dissemination of warning notifications. Rapid Blood Typing for Role II Units with Naval Medical Research Unit - San Antonio (NAMRU-SA) - Test proposed kit for rapid, reliable, and user-friendly field use.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Validation of Computerized Color Vision Tests for Use in Naval Aviation - Conduct a validation study to ensure key performance parameters are met. Foreign Directed Energy System Exploitation - Exploitation of foreign directed energy devices for bioeffects. ***FY 2014 Plans:*** USMC Suicide Prevention Program Resiliency Study and Related Efforts - Complete research leveraging the Marine Resiliency study and the execution of targeted studies of Marines. Attenuated Sporozoite Malaria Vaccine for Military Personnel - Continue ongoing clinical trial effort to test, for safety and efficacy, a militarily relevant malaria vaccine regimen utilizing a promising novel vaccine candidate. Biosurveillance Information Service (BioServ) - Conduct training and develop maintenance plan. Rapid Blood Typing for Role II Units with Naval Medical Research Unit - San Antonio (NAMRU-SA) - Apply for Clinical Laboratory Improvement Amendment waiver and Biologica License Application. Pass Food & Drug Administration Inspection on manufacturing processes. Validation of Computerized Color Vision Tests for Use in Naval Aviation - Transition test meeting exit criteria of exhibiting a lower diagnostic error rate (less than the current 20% of color deficient candidates passing). Transition Projects from Force Health Protection Future Capability - Continue Development, Testing, and Evaluation program for transition products from the Office of Naval Research 6.3 Advanced Development program. Focus will be on transition of resuscitation agents, and mitigation of neurotrauma and post-traumatic stress.			
Title: Tactical Logistics Planning Tool	0.475	0.481	0.000
Articles:	0	0	
FY 2012 Accomplishments: OCO: Discovery phase to identify the information technology structures and interface opportunities between TML+ and the Navy wargaming simulations has commenced. Implementation, testing, and refinement will also be conducted. ***FY 2013 Plans:*** OCO:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
A research tool that models patient flow from the point of injury through definitive care, and an analysis tool that supports OCO operational risk assessment, field medical services planning and systems analysis. Because it can handle larger amounts of data, TML+ provides the capability to model medical treatment facilities at all levels of care and their respective functional areas, the number and type of personnel, and the type, speed, and capacity of transportation assets. The plan is to continue to develop specific modeling capabilities in TML+ to support the development of OCO medical plans that optimize clinical outcomes for combat casualties using the minimum amount of manpower, materiel, and CASEVAC/Enroute care resources.			
Title: Combat Trauma Registry - Expeditionary Medical Encounter Database (CTR EMED) ***Articles:*** ***FY 2012 Accomplishments:*** OCO: Commenced development of a tri-service expeditionary database that captures and codes clinical data (battle injury, non-battle injury, disease, and mental health encounters) to create a continuous running average of injury trends occurring in theater. ***FY 2013 Plans:*** OCO: Tri-service database of all battle injuries, non-battle injuries, disease, and mental health encounters that occur in deployed medical treatment facilities supporting OCO. The CTR EMED tracks each casualty, develops a detailed injury profile of the casualty's injuries and severities in near real-time. The tactical, operational, and casualty clinical data are forwarded to the intelligence, materiel developer and threat mitigation communities. Continue to maintain CTR EMED infrastructure necessary for supporting these OCO threat mitigation initiatives.	0.875 0	0.892 0	0.000
Title: Validation of the Human Surrogate (HS) Prototype ***Articles:*** ***FY 2012 Accomplishments:*** OCO: Began pre-testing of human surrogate equipment for biofidelic experimental response. ***FY 2013 Plans:*** OCO: Validation of the Human Surrogate (HS) Prototype will help determine the margin of safety of microwave counter Improvised Explosive Devices (IEDs) devices and munitions. The HS model, developed by Greenwave Scientific Inc., designed to be used to make accurate measurements of the specific absorption rate (SAR) of RF energy in the human body from Counter Radio-Controlled Electronic Warfare (CREW) devices. The absorption of radiofrequency (RF) by the human body is very complex. It is well known that even uniform RF exposures lead to non-uniform absorption in almost all human exposure situations. Current	0.240 0	0.400 0	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
methods to measure SAR in the human body are elegant and elaborate processes but they can only be carried out in the laboratory. These consist of open and closed human phantom shells filled with liquids that simulate the electrical properties of human tissue. To measure the uneven absorption of RF energy a small electric field probe is mechanically moved around inside the phantom shell during exposure. Continue work on the HS model and the evaluation of the accurate measurements of the specific absorption rate of radio frequent energy in the human body from Counter Radio-Controlled Electronic Warfare devices. Start developing some initial research studies looking at the long term use of the Counter Radio-Controlled Electronic Warfare devices.			
Title: Laser Field Testing ***Articles:*** ***FY 2012 Accomplishments:*** OCO Initiated Acoustic and Laser Field Test efforts to evaluate commercial-off-the-shelf and government-off-the-shelf non-lethal weapons technology complete to evaluate the effectiveness of a combined acoustic and laser device as a long-range hailing and warning device. ***FY 2013 Plans:*** OCO: Based on a 5th Fleet Urgent Requirement, an evaluation of various commercial-off-the-shelf (COTS) and government-off-the-shelf (GOTS) Non-Lethal Weapons (NLW) technology is required to determine the effectiveness of a combined Acoustic and Laser device as a long range NLW hailing and warning device. The bioeffects effort will support legal, policy and treating development for these NLW devices and future acquisition to deploy these types of systems in-theatre. Continue the laboratory and field testing of the effectiveness of a combined Acoustic and Laser device as a long range NLW hailing and warning device. Conduct additional field testing under operational conditions.	0.143 0	0.400 0	0.000
Title: Counter Directed Energy Bio-effects ***Articles:*** ***FY 2012 Accomplishments:*** Counter Directed Energy Bio-effects: Test chambers/facilities subjected to certification for testing of directed energy effects and methodologies for protection.	0.217 0	0.000	0.000
Accomplishments/Planned Programs Subtotals	14.018	14.880	9.458

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The acquisition strategy for product lines and products in the Medical Development Program is designed and implemented consistent with the particular product and with the nature and size of the investment.

The Medical Development Program operates with a Memorandum of Understanding with the Marine Corps Systems Command (Family of Field Medical Equipment) for co-development of products for procurement by the USMC. The acquisition strategy for these products involved direct partnership with the acquisition and procurement professionals at Marine Corps Systems Command. The program's major Product Areas in the Medical Development Program are: 1) Equipment 2) Pharmaceuticals/ Biologics, and 3) Knowledge/Concepts. The primary Program Areas of Interest are in: 1) Expeditionary Medicine (Navy in Terrestrial, Maritime Surface, Submarine, & Aviation Operations and USMC in Expeditionary Operations) - in these areas the focus is on Levels I and II in Clinical Care Medicine; and 2) Products developed for battlefield treatment of Combat Casualties & Combat Trauma, focusing on delivery of Levels III and IV of care.

For areas 1 and 2, there are two primary acquisition strategies. The first is to test and evaluate commercially-developed medical product candidates in managed trials for ultimate Food and Drug Administration (FDA) approval. Partnerships with commercial developers ensure that products of military interest are available for procurement across the DoD, Federal Government, and commercial market. During development, DoD end users are included in the process to the extent possible. The second strategy is to drive the development process with DoD program investments. This process involves developing in-house or industrial prototypes in government-managed programs to meet military and regulatory requirements for production and fielding.
Both strategies promote advanced preparation of procurement plans in line with the product availability. Major Medical Development programs falling in these categories are: MOVES and MOVES anesthesia module (Equipment), Dengue vaccine, and Infusible Hemostatic-Phase I Clinical Trials (Pharmaceuticals/Biologics).

The Third Product Area (Knowledge/Concepts) is focused on the introduction of technologies, techniques, and procedures that alter medical practice and standards of care. These primarily require early involvement of the senior leadership of military medicine, in that the result of the program is modification of concepts of operations, policy, and/or doctrine. These are often much smaller; Medical Development Program examples include Navy/USMC Medical Planning Requirement Assessment and Crisis Action Planning Tool Transition.

Programs such as System for Objective Decision-Making on Timing of Wound Closure involve both material and knowledge solutions.

E. Performance Metrics

Maintaining Scheduled Milestones/Demonstration Events for individualized project/product roadmap. Ensuring dependencies across multiple efforts are maintained on schedule and are primary metrics.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
P. Falciparum Malaria Vaccine for Military Personnel	MIPR	NMRC:Silver Spring, MD	0.700	3.774	Jun 2012	1.813	Dec 2012	0.000		-		0.000	0.000	6.287	
Wound Management Program (Hyperspectral Imaging/System for Objective Decision-Making on the Timing of Wound Closure/Hetrotopic Ossification	SS/FP	NMRC:Silver Spring, MD	1.036	0.164	Aug 2012	0.000		0.000		-		0.000	0.000	1.200	
MOVES System Reconfiguration	SS/FP	Thornhill Research, Inc:Toronto, Canada	1.000	0.677	Aug 2012	0.000		0.000		-		0.000	0.000	1.677	
Intranasal Carbon Dioxide for Headache	C/FFP	CAPNIA/McConnell Group:Rockville MD	0.250	0.000		1.130	Dec 2012	0.000		-		0.000	0.000	1.380	
USMC Resiliency Study II	SS/FP	HQ USMC:University of San Diego, CA	2.098	1.569	Jan 2012	2.400	Dec 2012	0.830	Dec 2013	-		0.830	Continuing	Continuing	Continuing
USMC Suicide Prevention Program - Marine Resiliency Study	SS/FP	HQ USMC:VA San Diego, CA	0.702	0.561	Apr 2012	0.510	Dec 2012	0.000		-		0.000	0.000	1.773	
Individualized Fatigue-Based Scheduling and Countermeasure System	SS/FP	Pulsar Informatics:Philadelphia, PA	1.348	1.348	Feb 2012	1.364	Dec 2012	0.000		-		0.000	0.000	4.060	
Sterilucent Sterilizer	C/FP	MARCORSYSCOM:Quantico, VA	0.500	0.075	Sep 2012	0.000		0.000		-		0.000	0.000	0.575	
Intranasal Scopolamine for the Prevention of Motion Sickness in Dynamic Military Environments	Allot	NAMRU-Dayton:Dayton, OH	0.250	0.395	Aug 2012	0.125	Dec 2012	0.000		-		0.000	0.000	0.770	
Malaria Vaccine/Clinical Testing Amendment: Radiation-Attenuated Whole	Allot	NMRC:Silver Spring, MD	0.700	0.000		0.189	Dec 2012	0.246	Dec 2013	-		0.246	0.000	1.135	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Noise Induced Hearing Loss: Administration of NAC and HPN-07-Clinical Trials	SS/FP	Otologic, Pharma:Carlsbad, CA	0.000	0.689	Aug 2012	0.000		0.000		-		0.000	0.000	0.689	
Synthetic Platelets in Swine Liver Injury Model	SS/FP	Case Western University:Cleveland, OH	0.000	0.162	Aug 2012	0.000		0.000		-		0.000	0.000	0.162	
Battalion Aid Station Capabilities Study	Allot	NHRC:San Diego, CA	0.000	0.495	May 2012	0.000		0.000		-		0.000	0.000	0.495	
Biosurveillance Information Service (BioServ)	Allot	NAMRU-2:Pearl Harbor, HI	0.000	0.381	Sep 2012	0.125	Dec 2012	0.150	Jun 2014	-		0.150	0.000	0.656	
Implentation of an Alternative Watchstanding Schedule on USN Surface Combatants	MIPR	Naval Postgraduate School:Monterey, CA	0.000	0.000		0.112	Dec 2012	0.000		-		0.000	0.000	0.112	
Human Factors Support and Test of OWL Tool	Allot	NSMRL:Groton, CT	0.000	0.195	Aug 2012	0.215	Dec 2012	0.000		-		0.000	0.000	0.410	
TML+ Scenario Run/Fleet Forces	MIPR	NHRC:San Diego, CA	0.000	0.500	Jul 2012	0.000		0.000		-		0.000	0.000	0.500	
Plasma-Dry Blood Products-AFRIMS	MIPR	NMRDC:Ft. Detrick, MD	0.150	0.000		0.000		0.000		-		0.000	0.000	0.150	
Field Friendly Rapid Blood Typing Capabilities to Support Role II Units	Allot	NAMRU-SA:San Antonio, TX	0.000	0.240	Aug 2012	0.400	Dec 2012	0.385	Dec 2013	-		0.385	0.000	1.025	
Validation of Computerized Color Vision Tests for Use in Naval Aviation	Allot	NAMRU-Dayton:Dayton, OH	0.000	0.425	Jul 2012	0.375	Dec 2012	0.000		-		0.000	0.000	0.800	
Product Development	TBD	Various:Not Specific	0.000	0.000		3.949	Dec 2012	7.847	Dec 2013	-		7.847	0.000	11.796	
Medical/Dental Equipment Development	Allot	Various:Not Specific	0.300	1.950	Sep 2012	2.173	Dec 2012	0.000		-		0.000	0.000	4.423	
Test of Specialized Lighting to Improve	Allot	NSMRL:Groton, CT	0.000	0.010	Aug 2012	0.000		0.000		-		0.000	0.000	0.010	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

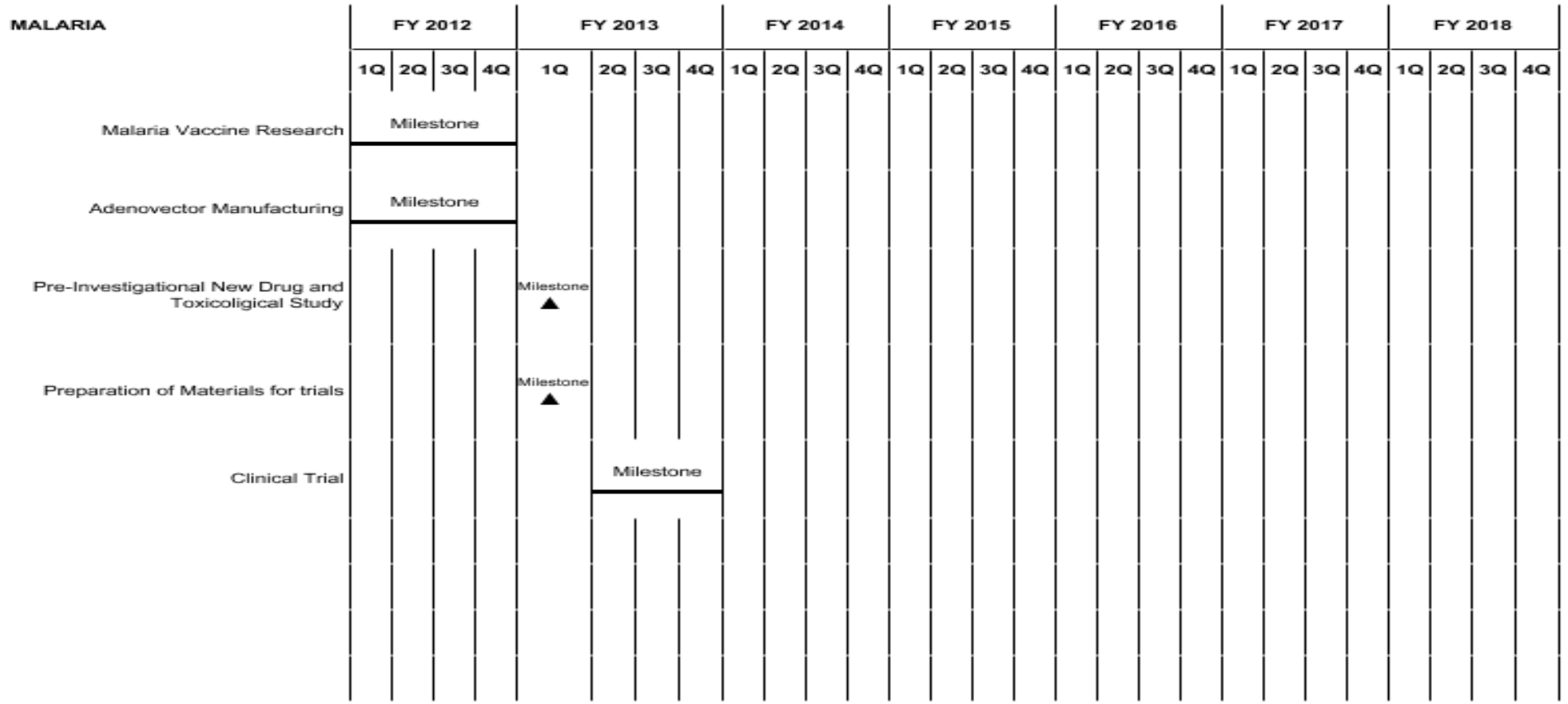
Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Submariner Circadian Physiology															
Program Suport	C/FFP	NMRC:Silver Spring, MD	0.200	0.181	Sep 2012	0.000		0.000		-		0.000	0.000	0.381	
Evaluation of an Alternative Watchstanding Schedule fo the US Navy Surface Warfare Community	Allot	NSMRL:Groton, CT	0.000	0.227	Aug 2012	0.000		0.000		-		0.000	0.000	0.227	
		Subtotal	9.234	14.018		14.880		9.458		0.000		9.458			

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	9.234	14.018		14.880		9.458		0.000		9.458			

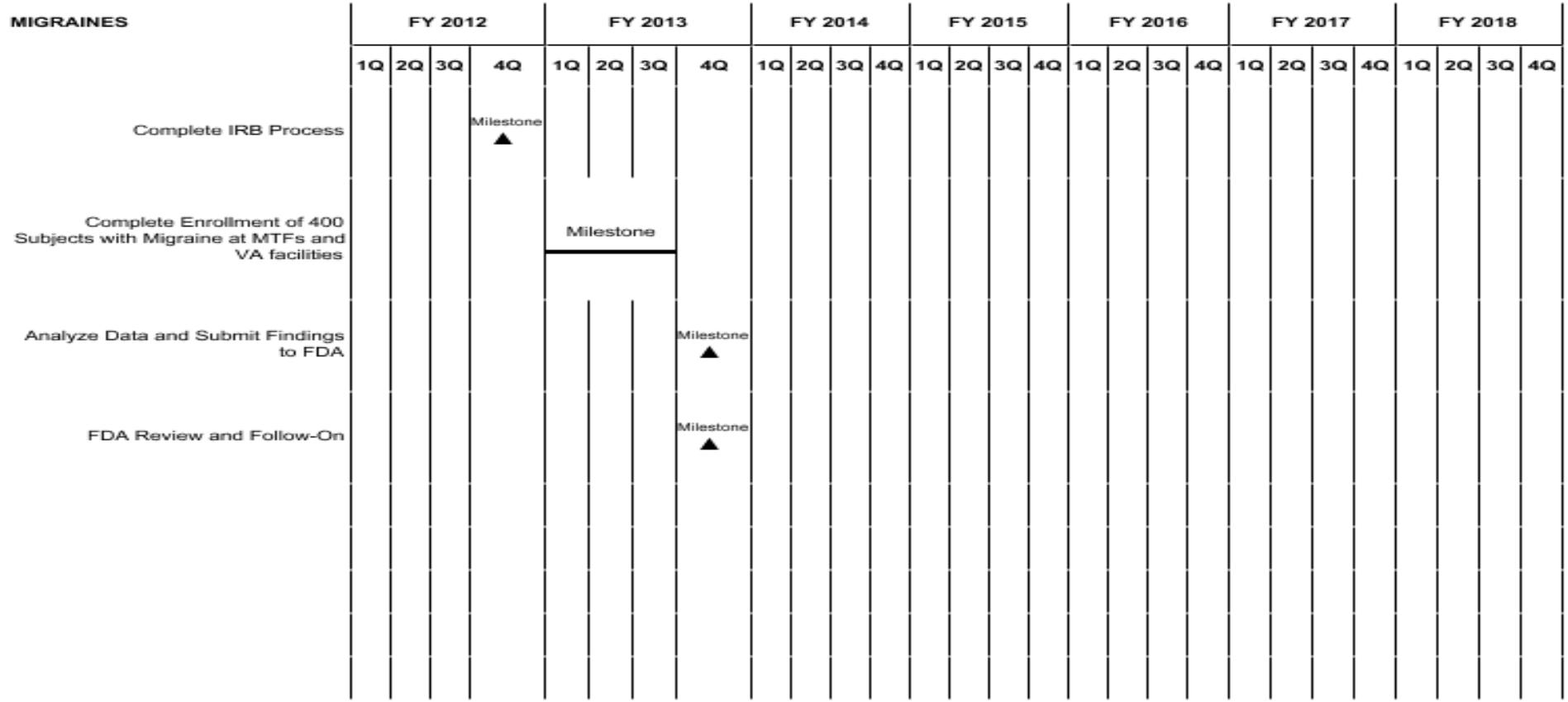
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*



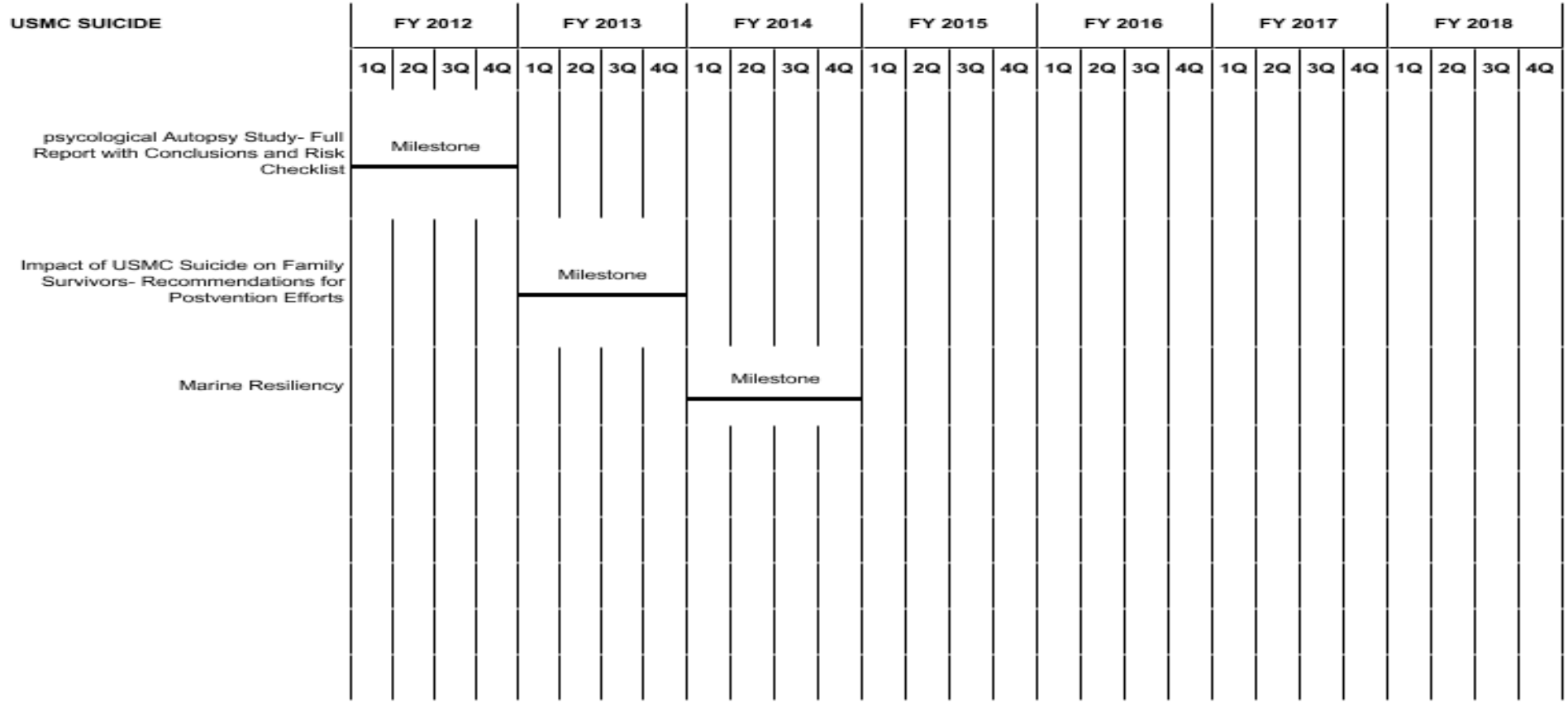
2014DON - 0604771N - 0933

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*



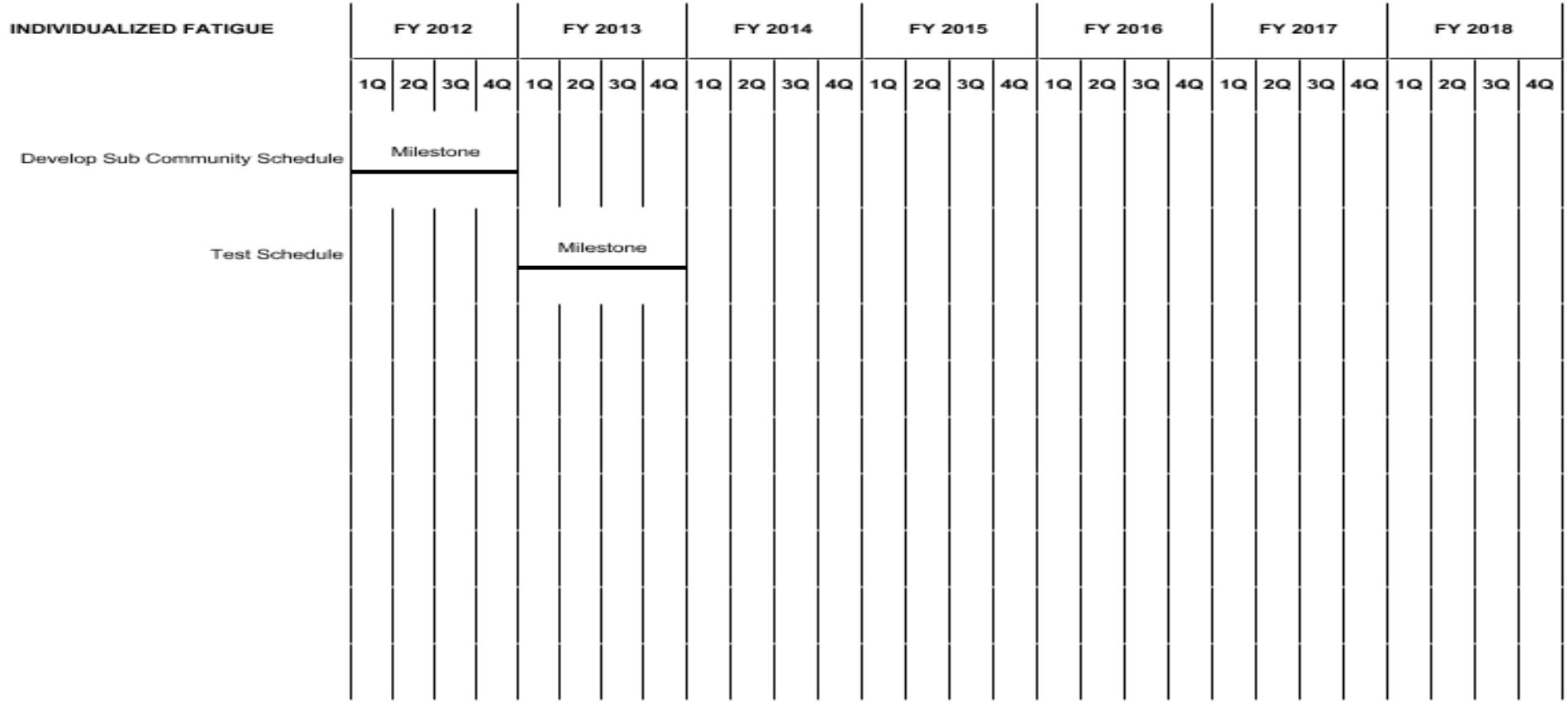
2014DON - 0604771N - 0933

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*



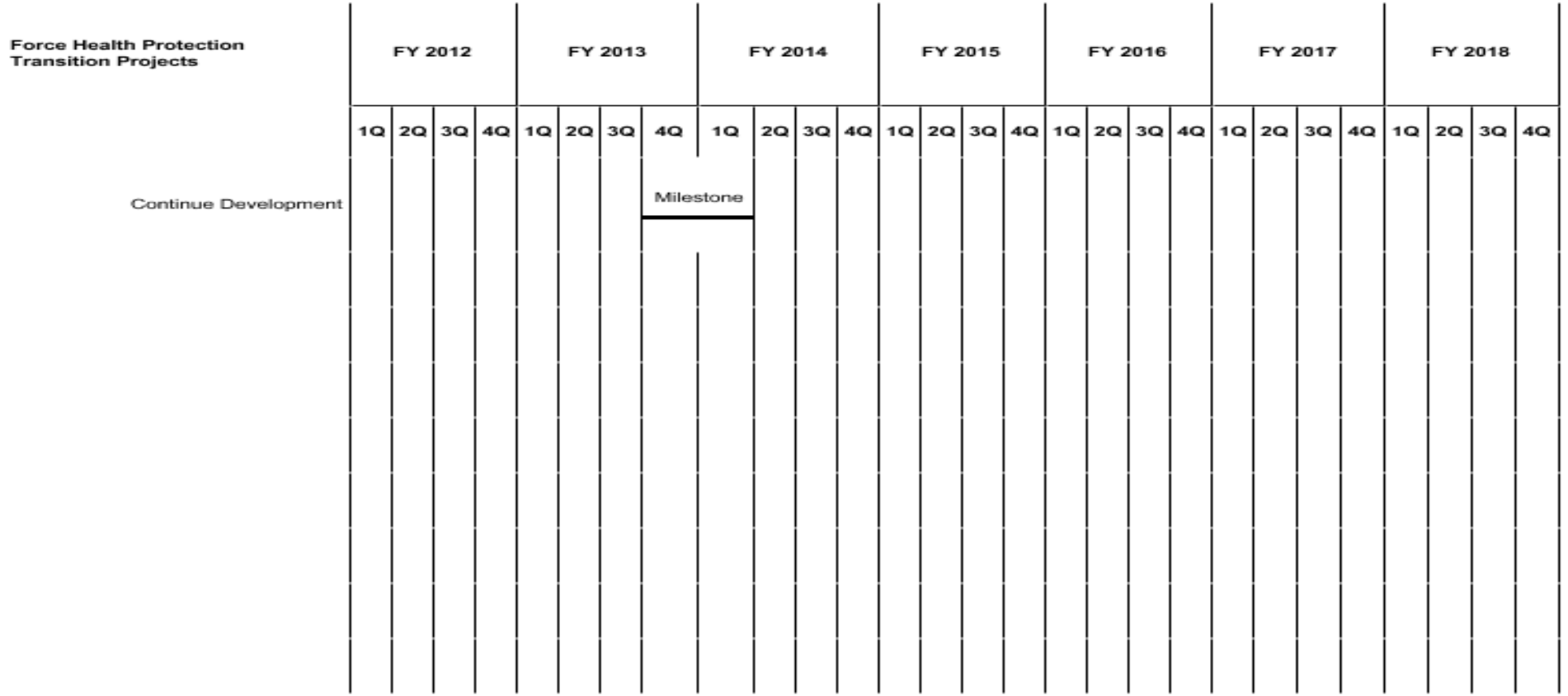
2014DON - 0604771N - 0933

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*



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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 0933: *Medical/Dental Equipment Dev*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MALARIA				
Malaria Vaccine Research:	1	2012	4	2012
Adenovector Manufacturing:	1	2012	4	2012
Pre-Investigational New Drug and Toxicoligical Study:	1	2013	1	2013
Preparation of Materials for trials:	1	2013	1	2013
Clinical Trial: Schedule Detail	2	2013	4	2013
MIGRAINES				
Complete IRB Process:	4	2012	4	2012
Complete Enrollment of 400 Subjects with Migraine at MTFs and VA facilities: Schedule Detail	1	2013	3	2013
Analyze Data and Submit Findings to FDA: Schedule Detail	4	2013	4	2013
FDA Review and Follow-On: Schedule Detail	4	2013	4	2013
USMC SUICIDE				
psycological Autopsy Study- Full Report with Conclusions and Risk Checklist: Schedule Detail	1	2012	4	2012
Impact of USMC Suicide on Family Survivors- Recommendations for Postvention Efforts: Schedule Detail	1	2013	4	2013
Marine Resiliency: Schedule Detail	1	2014	4	2014
INDIVIDUALIZED FATIGUE				
Develop Sub Community Schedule: Schedule Detail	1	2012	4	2012
Test Schedule: Schedule Detail	1	2013	4	2013
Force Health Protection Transition Projects				
Continue Development: Schedule Detail	4	2013	1	2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	16.714	18.100	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	34.814
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Congressional Adds

B. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013
Congressional Add: Military Dental Research	5.100	-
FY 2012 Accomplishments: All Navy Military Dental Research projects are underway. FY12 research efforts include a number of continuation projects from FY11. These efforts include the following accomplishments: Evaluation of Incidence and Treatment of Dental Emergencies in Deployed Personnel; Third Molar Related Dental Emergency and Extractions in Deployed Personnel; Design /Fabrication of Rapid Prototype Titanium Implement for Head /Neck Reconstruction.		
Congressional Add: Wound Care Research (transferred from Defense Health Program)	13.000	-
FY 2012 Accomplishments: The Wound Care Research Program is a comprehensive effort which continues to develop novel diagnostics and treatments to enhance the care of the wounded warfighter. The program utilizes cutting edge molecular assays and advanced computational biology to develop a device to predict the outcome of wounds. The development of novel treatments for wounds is based on the use of cells and factors to improve wound healing.		
Congressional Adds Subtotals	18.100	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 9999: *Congressional Adds*

E. Performance Metrics

Not required for Congressional adds.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604771N: *Medical Development*	PROJECT 9999: *Congressional Adds*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Congressional Add	C/BA	Not Specified:Not Specified	16.714	18.100	Jan 2012	0.000		0.000		-		0.000	0.000	34.814	
		Subtotal	16.714	18.100		0.000		0.000		0.000		0.000	0.000	34.814	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	16.714	18.100		0.000		0.000		0.000		0.000	0.000	34.814	

Remarks

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	1,178.276	38.389	47.764	51.430	-	51.430	35.242	34.969	35.513	33.844	Continuing	Continuing
0253: *Nav & Electro-Optical Supt*	49.835	5.826	7.527	12.861	-	12.861	7.650	7.775	7.920	8.029	Continuing	Continuing
0676: *Improve ID Development*	24.343	1.789	2.335	2.356	-	2.356	2.295	2.292	2.431	2.462	Continuing	Continuing
0921: *NAVSTAR GPS Equipment*	963.242	19.518	19.652	16.106	-	16.106	20.767	20.963	21.417	21.329	Continuing	Continuing
1253: *Combat Ident System*	140.856	11.256	18.250	20.107	-	20.107	4.530	3.939	3.745	2.024	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Reliable and secure navigation and positive identification (ID) systems are essential elements of battle management in the naval environment. The Photonics Imaging System (0253) is a non-hull penetrating replacement for existing optical periscopes. The Photonics Imaging System exploits a wide portion of the electro-magnetic spectrum utilizing advanced Electro-Optic/thermal imaging, and communications intercept/Electronic Warfare Support (ES). The Integrated Submarine Imaging System (ISIS) (0253) is a back fit system to integrate all imaging capabilities on existing submarine classes. The Combat Identification System (CIS) project (1253) for Mark XIIA, and Improved Identification Development (0676) for AN/UPX-29(V), covers the Mark XIIA Mode 5 upgrade to the existing Mark XII family of systems that is Joint and North Atlantic Treaty Organization (NATO) interoperable. Per OSD direction, NATO participation is encouraged and performance data is exchanged to ensure the opportunity for interoperability with allied identification systems is maximized. In addition to distinguishing friend from foe for weapons employment, the Navy requires secure, jam resistant Identification Friend or Foe (IFF) systems for battle group air defense management and air traffic control. Identification is multifaceted and includes information received from several sensors (both cooperative and non-cooperative systems).

NAVSTAR Global Positioning System (GPS) project (0921) is a space-based positioning, navigation and timing (PNT) system that provides authorized users with secure, worldwide, all weather, three dimensional position, velocity and precise time data. Navigation Sensor System Interface (NAVSSI) is a system that provides an integrated navigation message structure for network distribution to support combat, command and control, information and other mission critical capabilities. Navy Air and Sea Navigation Warfare (NAVWAR) are major elements of the GPS program. NAVWAR's mission is to provide continued access to GPS information in a denied environment. NAVWAR accomplishes this through the use of enhanced user equipment (UE). GPS modernization addresses the Navy's future integration of GPS Joint Program Office (JPO) Modernized User Equipment (MUE) products being developed that will enable the use of new signals in space. The GPS - based Positioning, Navigation, and Timing (PNT) Service (GPNTS) system is being developed to replace stand-alone AN/WRN-6 receivers and integrated NAVSSI systems. Additionally, future capability will migrate toward a Common Computing Environment (CCE) such as Consolidated Afloat Networks Enterprise Services (CANES).

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604777N: *Navigation/Id System*

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	39.331	47.764	50.259	-	50.259
Current President's Budget	38.389	47.764	51.430	-	51.430
Total Adjustments	-0.942	0.000	1.171	-	1.171
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.013	0.000			
• SBIR/STTR Transfer	-0.929	0.000			
• Program Adjustments	0.000	0.000	1.745	-	1.745
• Rate/Misc Adjustments	0.000	0.000	-0.574	-	-0.574

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0253: *Nav & Electro-Optical Supt*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0253: *Nav & Electro-Optical Supt*	49.835	5.826	7.527	12.861	-	12.861	7.650	7.775	7.920	8.029	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Navigation and Electro-Optical (E-O) Support program develops Submarine Electro-Optical and imagery systems and equipment that will improve submarine imaging capability in the areas of: ship safety, Intelligence, Surveillance and Reconnaissance (ISR), and tactical control (contact management in the littorals). The Photonics Mast mounted on the Universal Modular Mast, will provide imaging capability for the SSGN and VIRGINIA Class submarines. The Photonics Mast design exploits a wide portion of the electro-magnetic spectrum through advanced E-O and thermal imaging and Electronic Warfare Support (ES)/Communications intercept. It will provide significant improvements in submarine stealth and Infra-Red (IR) imaging capability. The non-hull penetrating design provides freedom in ship design and space savings for SSGN and VIRGINIA Class and future submarines designs. Specific efforts include: Digital Sensor development and integration and Low Profile Photonics Mast (LPPM) design studies.

The Department of the Navy established the Integrated Submarine Imaging System (ISIS) to rapidly field the Type 18 Periscope, Periscope Acquisition, Tracking, and Ranging with Improved Observation Techniques (PATRIOT) Rangefinder, Type 8 Mod 4 IR Periscope systems, and integrate existing periscope imagery systems into a single system for installation on board SSN 688 Class and SEAWOLF Class submarines. The ISIS baseline now includes the Type 18 Periscope, PATRIOT Rangefinder, Type 8 Mod 4 IR Periscope, and the Photonics Mast onboard VIRGINIA and SSGN Class Submarines. ISIS supports high intensity operations in the littorals and provides the submarine force with the tactical imaging systems necessary to safely and effectively employ its surveillance and weapons capabilities. An ISIS capability development document (CDD) was approved 22 Dec, 2011. The CDD is used to fully integrate the ISIS program of record into the submarines force rapid insertion technology process and to incorporate Fleet-endorsed requirements such as LPPM that are not levied by the ISIS Operational Requirements Document. The AN/BVS-1 Photonics Mast Program (PMP) provides for the development and acquisition of a non-hull penetrating submarine electronic imaging system for Blocks I and II VIRGINIA Class submarines. The Integrated Submarine Imaging System (ISIS) provides mission critical, all weather, visual, and electronic search, digital image management, indication, warning, and platform architecture interface capabilities for SSN 688, SSN 21, SSN 774 and SSGN Class submarines.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: ISIS and Photonics common hardware capabilities development and obsolescence.	0.497	4.945	11.076
Articles:	0	0	0
FY 2012 Accomplishments: Continued ISIS Technical Insertion (TI) development for LOS ANGELES and SEAWOLF Classes.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0253: *Nav & Electro-Optical Supt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
ISIS Technical Insertion (TI) development for LOS ANGELES, SEAWOLF and VIRGINIA Classes. ***FY 2014 Plans:*** ISIS Technical Insertion (TI) development for LOS ANGELES, SEAWOLF, SSGN and VA Classes including LPPM.			
Title: Low Light Level TV development, digital sensor development and integration and displays. ***Articles:*** ***FY 2012 Accomplishments:*** Completed display upgrades.	0.241 0	0.000	0.000
Title: Imaging Systems Test Efforts. ***Articles:*** ***FY 2012 Accomplishments:*** ISIS TI-12 Engineering Development Model (EDM) Testing. ***FY 2013 Plans:*** TI-12 Operational Testing (OT) and Dockside Testing (DT). ***FY 2014 Plans:*** TI-14 EDM Testing.	0.371 0	0.508 0	1.035 0
Title: Low Profile Photonics Mast ***Articles:*** ***FY 2012 Accomplishments:*** Development of 1 Engineering Design Model/Low Profile Photonics Mast (EDM/LPPM) asset; Non Recurring Engineering (NRE) for LPPM Baseline ***FY 2013 Plans:*** Continued NRE for LPPM Baseline Design ***FY 2014 Plans:*** Completion of LPPM Baseline Design	4.562 0	1.500 0	0.750 0
Title: PATRIOT Radar Range Finder Development for Photonics for SSGN and VIRGINIA Class Submarine. ***Articles:*** ***FY 2012 Accomplishments:*** Continued upgrade of the Type 18 Periscope Automated Rangefinder Software.	0.155 0	0.574 0	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0253: *Nav & Electro-Optical Supt*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continued integration of the ISIS TI-10 PATRIOT Rangefinder and Software Development for VIRGINIA and SSGN Classes. ***FY 2013 Plans:*** Development and integration of PATRIOT Radar Range Finder into ISIS Technical Insertion kit design for TI-12.			
Accomplishments/Planned Programs Subtotals	5.826	7.527	12.861

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN/201300: *Photonics Mast*	36.250	36.975	18.634		18.634	38.008	38.773	39.560	40.363	Continuing	Continuing
• OPN/0831: *Sub Periscopes & Imaging Equip.*	64.033	53.809	52.515		52.515	78.001	66.245	49.111	61.450	Continuing	Continuing
• RDT&E/0604558N: *VIRGINIA Class Design Development*	3.000	3.200	3.500		3.500	4.500	3.000	3.000	3.051	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Acquisition Strategy for AN/BVS-1 Photonics Mast Program (PMP) is dated 24 Sept 2001. The PMP provides for the development and acquisition of a non-hull penetrating submarine electronic imaging system for VIRGINIA Class submarines. The Acquisition Strategy for Integrated Submarine Imaging System (ISIS) is dated 07 Jul 2003. The ISIS will provide mission critical, all weather, visual, and electronic search, digital image management, indication, warning, and platform architecture interface capabilities for SSN 688, SSN 21, SSN 774 and SSGN class submarines.

E. Performance Metrics

Successful application of system engineering processes. Design and development of improvements. Site acceptance of product improvements with no Priority 1 or 2 problem reports. Completion of 2 upgrades per year. Acceptance of product improvements with no Priority 1 or 2 problem reports.

The RDD program goal is to respond to urgent operational needs within 30 days and provide for rapid development and fielding of prototype solutions within 270 days.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0253: *Nav & Electro-Optical Supt*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Development	WR	NUWC:Newport, RI	11.034	0.000		0.533	Oct 2012	0.668	Oct 2013	-		0.668	Continuing	Continuing	Continuing
Software Development	C/CPIF	Lockheed Martin:Manassas, VA	11.203	0.044	Apr 2012	1.856	Mar 2013	5.952	Mar 2014	-		5.952	Continuing	Continuing	Continuing
Systems Engineering	WR	NUWC:Newport, RI	12.774	0.452	Oct 2011	0.684	Oct 2012	1.900	Oct 2013	-		1.900	Continuing	Continuing	Continuing
Hardware Development	C/CPIF	Lockheed Martin:Manassas, VA	1.956	0.000		2.422	Mar 2013	2.512	Mar 2014	-		2.512	Continuing	Continuing	Continuing
Hardware Development	C/CPFF	3 Phoenix:Chantilly, VA	0.000	4.562	Jul 2012	1.500	Nov 2012	0.750	Mar 2014	-		0.750	Continuing	Continuing	Continuing
Miscellaneous	WR	NUWC:Newport, RI	3.589	0.000		0.000		0.000		-		0.000	0.000	3.589	
Systems Engineering	WR	NAWC:China Lake, CA	0.000	0.226	Nov 2012	0.000		0.000		-		0.000	0.000	0.226	
		Subtotal	40.556	5.284		6.995		11.782		0.000		11.782			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Suppport	C/CPAF	AT&T:Vienna VA	3.521	0.140	Nov 2011	0.000		0.000		-		0.000	0.000	3.661	
		Subtotal	3.521	0.140		0.000		0.000		0.000		0.000	0.000	3.661	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	WR	NUWC:Newport, RI	5.455	0.212	Oct 2011	0.215	Oct 2012	0.887	Oct 2013	-		0.887	Continuing	Continuing	Continuing
Development Test & Evaluation	WR	COMOPTEVFOR:Norfolk, VA	0.000	0.136	Oct 2011	0.268	Oct 2012	0.148	Oct 2013	-		0.148	Continuing	Continuing	Continuing
		Subtotal	5.455	0.348		0.483		1.035		0.000		1.035			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0253: *Nav & Electro-Optical Supt*

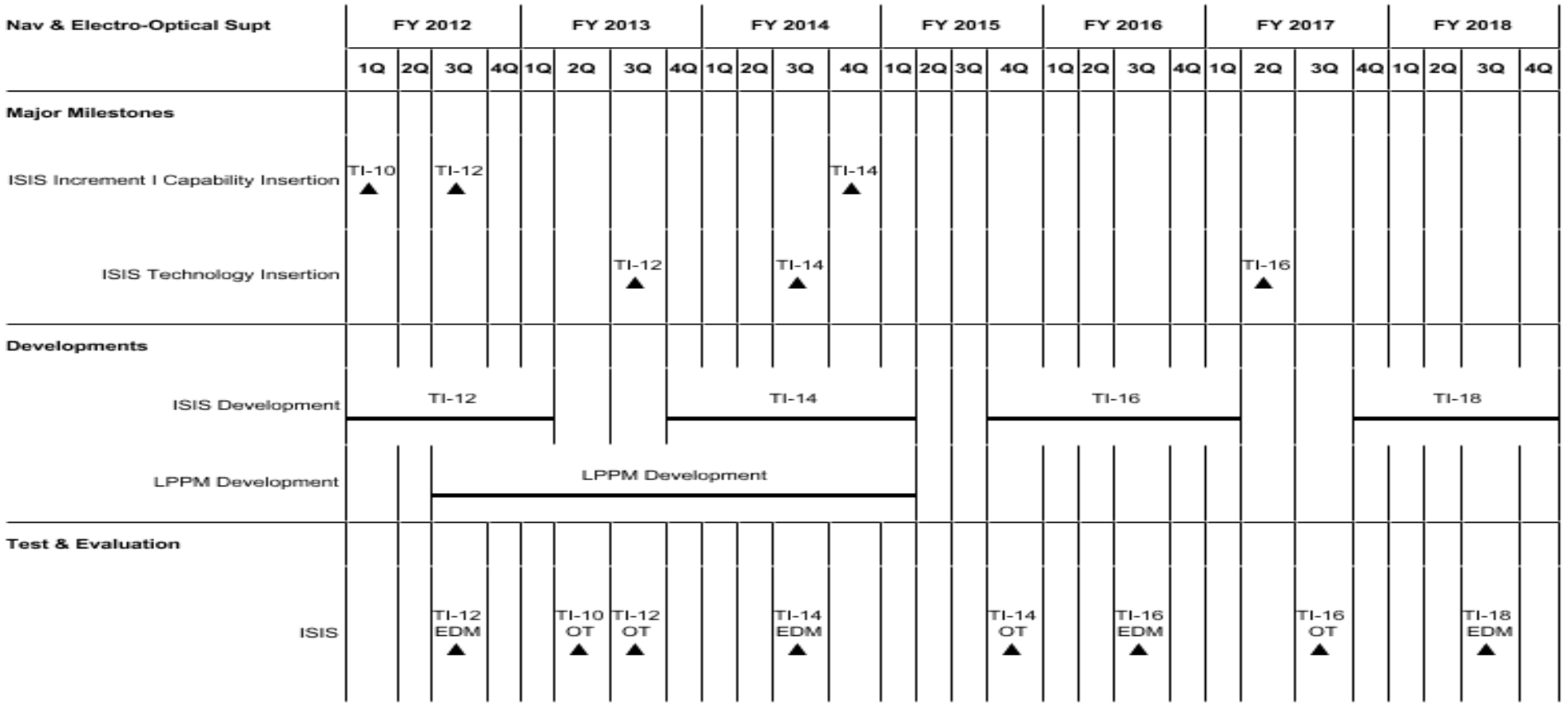
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	WR	NAVSEA:Washington, DC	0.303	0.054	Oct 2011	0.049	Oct 2012	0.044	Oct 2013	-		0.044	Continuing	Continuing	Continuing
		Subtotal	0.303	0.054		0.049		0.044		0.000		0.044			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	49.835	5.826		7.527		12.861		0.000		12.861			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0253: *Nav & Electro-Optical Supt*



2014PB - 0604777N - 0253

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0253: *Nav & Electro-Optical Supt*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Nav & Electro-Optical Supt				
Major Milestones: ISIS Increment I Capability Insertion: ISIS Increment I Capability Insertion Fielding (TI-10)	1	2012	1	2012
Major Milestones: ISIS Increment I Capability Insertion: ISIS Increment I Capability Insertion Fielding (TI-12)	3	2012	3	2012
Major Milestones: ISIS Increment I Capability Insertion: ISIS Increment I Capability Insertion Fielding (TI-14)	4	2014	4	2014
Major Milestones: ISIS Technology Insertion: ISIS Technology Insertion Fielding (TI-12)	3	2013	3	2013
Major Milestones: ISIS Technology Insertion: ISIS Technology Insertion Fielding (TI-14)	3	2014	3	2014
Major Milestones: ISIS Technology Insertion: ISIS Technology Insertion Fielding (TI-16)	2	2017	2	2017
Developments: ISIS Development: Development: ISIS TI-12	1	2012	1	2013
Developments: ISIS Development: Development: ISIS TI-14	4	2013	1	2015
Developments: ISIS Development: Development: ISIS TI-16	4	2015	1	2017
Developments: ISIS Development: Developments: ISIS TI-18	4	2017	4	2018
Developments: LPPM Development: LPPM Development	3	2012	1	2015
Test & Evaluation: ISIS: Test & Evaluation - ISIS TI-10 OT	2	2013	2	2013
Test & Evaluation: ISIS: Test & Evaluation - ISIS TI-12 EDM	3	2012	3	2012
Test & Evaluation: ISIS: Test & Evaluation - ISIS TI-12 OT	3	2013	3	2013
Test & Evaluation: ISIS: ISIS Test & Evaluation - TI-14 EDM	3	2014	3	2014
Test & Evaluation: ISIS: Test & Evaluation - ISIS TI-14 OT	4	2015	4	2015
Test & Evaluation: ISIS: Test & Evaluation - ISIS TI-16 EDM	3	2016	3	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0253: *Nav & Electro-Optical Supt*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test & Evaluation: ISIS: Test & Evaluation - ISIS TI-16 OT	3	2017	3	2017
Test & Evaluation: ISIS: Test & Evaluation - ISIS TI-18 EDM	3	2018	3	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0676: *Improve ID Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0676: *Improve ID Development*	24.343	1.789	2.335	2.356	-	2.356	2.295	2.292	2.431	2.462	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Reliable and secure navigation and positive identification (ID) systems are essential elements of battle management in the naval environment. In addition to providing platform identification for weapons employment, the Navy requires secure, jam resistant Identification Friend or Foe (IFF) systems for battle group air defense management and air traffic control. The Improved ID Development project addresses the Mark XIIA Mode 5 upgrade to the existing AN/UPX-29(V) Mark XII family of systems that is Joint and North Atlantic Treaty Organization (NATO) interoperable. This exhibit also addresses the AN/UPX-29(V) antenna, the OE-120/UPX.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: AN/UPX-29 (V) - OE-120/UPX Antenna Replacement	1.188	1.373	1.180
Articles:	0	0	0
Description: Engineering and integration development for antenna group OE-120/UPX modernization. Develop design studies and Analysis of Alternitives (AoA), draft specifications, and perform system development and integration efforts.			
FY 2012 Accomplishments: Finalized the Class 1 Part 1 ECP.			
FY 2013 Plans: Develop Antenna Group OE-120/UPX system requirements and address obsolescence issues as required.			
FY 2014 Plans: Address OE-120 obsolescence issues as required. Integration and testing of antenna phase shifter and power supply modules.			
Title: Mark XIIA Mode 5 Improvement for AN/UPX-29(V)	0.421	0.814	1.022
Articles:	0	0	0
Description: Engineering, development, and integration of Mark XIIA Improvements to the AN/UPX-29 (V). Correct deficiencies from Integrated Test and Operational Test (IT - OT) and baseline software and documentation. Funds development and integration of Mark XIIA Improvement to the AN/UPX-29 (V) system on CG 47, DDG 51, LHD 1, LPD 17 and CV/CVN class ships. Provides core Integrated Logistics Support (ILS) documentation; formalizes hardware/software configuration; finalizes technical/ design data, and resolves testing anomalies.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0676: *Improve ID Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Continued AN/UPX-29(V) integration and interface certification testing with ship baselines. Evaluated and replaced system processors due to obsolescence. ***FY 2013 Plans:*** Continue AN/UPX-29(V) integration and interface certification testing with ship baselines. Continue evaluating and replacing system processors due to obsolescence. ***FY 2014 Plans:*** Evaluate software re-host with new system processors against emerging Aegis and Ship Self Defense System combat systems. Support follow-on test and evaluation of Mode 5 capability on new ship classes/flights.			
Title: AN/UPX-29(V) Management Support	0.180	0.148	0.154
Articles:	0	0	0
Description: Engineering and Program Management of the AN/UPX 29 (V). Perform system integration efforts. ***FY 2012 Accomplishments:*** Managed engineering assessments/evaluations/development efforts that provided resolution to engineering investigations and obsolescence issues. ***FY 2013 Plans:*** Manage engineering assessments/evaluations/development efforts that provide resolution to engineering investigations and obsolescence issues. ***FY 2014 Plans:*** Manage engineering assessments/evaluations/development efforts that provide resolution to engineering investigations and obsolescence issues.			
Accomplishments/Planned Programs Subtotals	1.789	2.335	2.356

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2851: *Identification Systems*	31.470	35.474	38.934		38.934	38.570	35.096	29.038	29.513	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0676: *Improve ID Development*

D. Acquisition Strategy

The acquisition strategy is to develop Mode 5 Engineering Change Proposals for modern Mark XII IFF equipment and integrate into all Navy Combat Weapons systems platforms and augment the Navy's Cooperative Identification Capability to include Mode 5.

E. Performance Metrics

Achieve Full Rate Production (FRP) Decision and Initial Operational Capability.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0676: *Improve ID Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	NAWCAD:St Inigoes, MD	3.985	1.093	Nov 2011	1.140	Nov 2012	1.180	Nov 2013	-		1.180	Continuing	Continuing	Continuing
Ship Integration	WR	NAWCAD:St Inigoes, MD	2.077	0.075	Nov 2011	0.152	Nov 2012	0.158	Nov 2013	-		0.158	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWCAD:St Inigoes, MD	5.002	0.147	Nov 2011	0.410	Nov 2012	0.426	Nov 2013	-		0.426	Continuing	Continuing	Continuing
		Subtotal	11.064	1.315		1.702		1.764		0.000		1.764			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Configuration Management	WR	NAWCAD:St Inigoes, MD	0.169	0.000		0.000		0.000		-		0.000	0.000	0.169	
ILS	WR	NAWCAD:St Inigoes, MD	2.371	0.056	Nov 2011	0.059	Nov 2012	0.061	Nov 2013	-		0.061	Continuing	Continuing	Continuing
Software Development	WR	NAWCAD:St Inigoes, MD	5.081	0.093	Nov 2011	0.193	Nov 2012	0.168	Nov 2013	-		0.168	Continuing	Continuing	Continuing
Technical Data	WR	NAWCAD:St Inigoes, MD	1.247	0.185	Nov 2011	0.233	Nov 2012	0.209	Nov 2013	-		0.209	Continuing	Continuing	Continuing
Training	WR	NAWCAD:St Inigoes, MD	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	
		Subtotal	9.068	0.334		0.485		0.438		0.000		0.438			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWCAD:St Inigoes, MD	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0676: *Improve ID Development*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Test & Evaluation	WR	NAWCAD:St Inigoes, MD	1.328	0.000		0.000		0.000		-		0.000	0.000	1.328	
Test Assets	WR	NAWCAD:St Inigoes, MD	0.731	0.000		0.000		0.000		-		0.000	0.000	0.731	
		Subtotal	2.559	0.000		0.000		0.000		0.000		0.000	0.000	2.559	

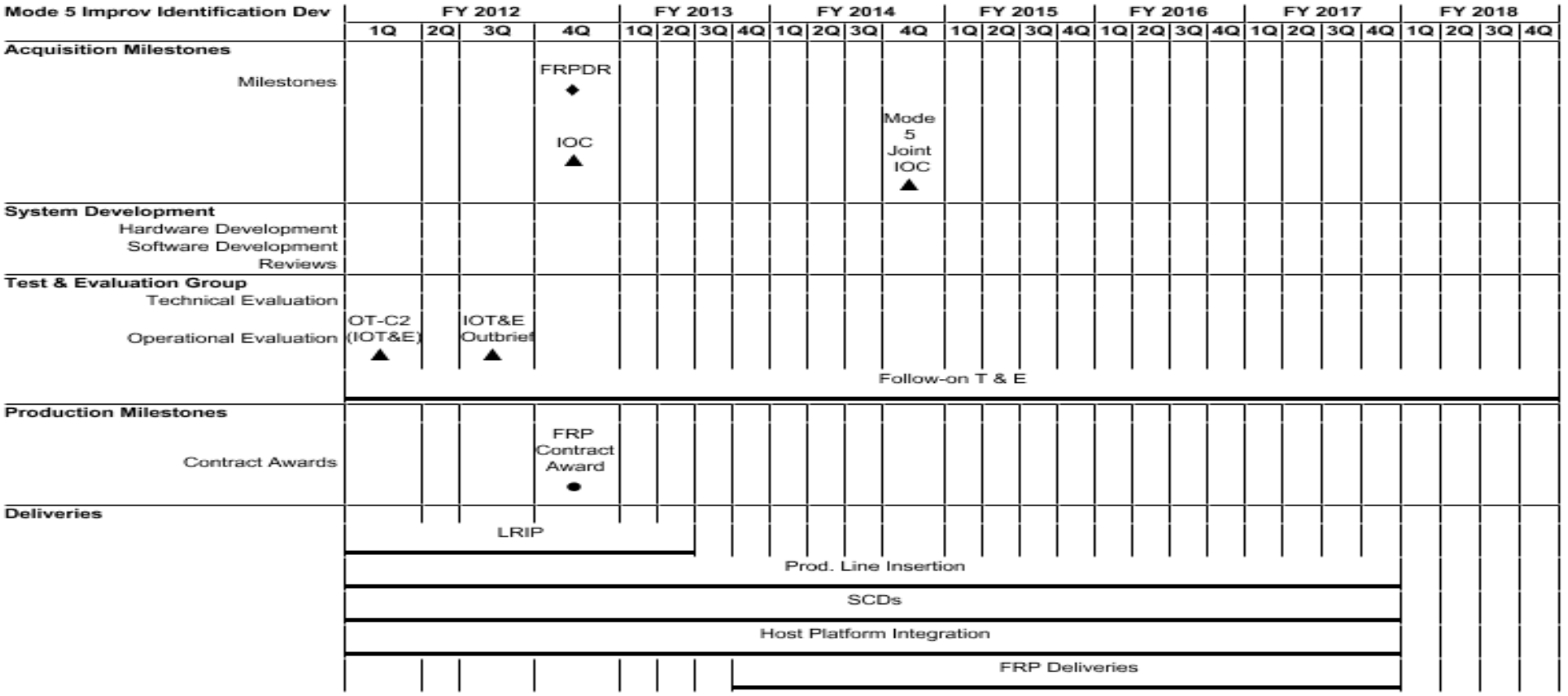
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	American Electronics:California, MD	1.408	0.140	Dec 2011	0.148	Nov 2012	0.154	Nov 2013	-		0.154	Continuing	Continuing	Continuing
Engineering Support	WR	NAWCAD:PAX River, MD	0.244	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	1.652	0.140		0.148		0.154		0.000		0.154			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	24.343	1.789		2.335		2.356		0.000		2.356			

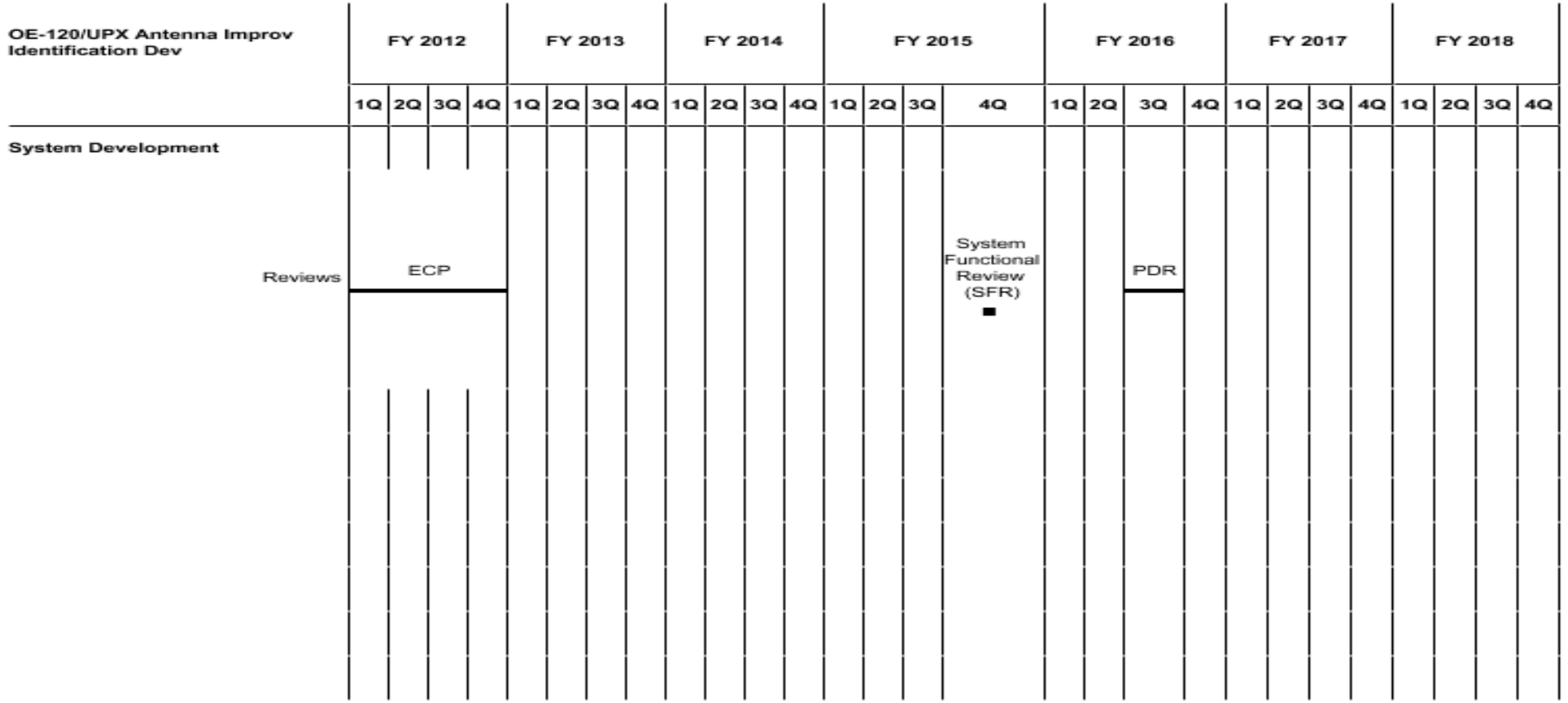
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0676: *Improve ID Development*



2014OSD - 0604777N - 0676

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0676: *Improve ID Development*



2014OSD - 0604777N - 0676

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0676: *Improve ID Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Mode 5 Improv Identification Dev				
Acquisition Milestones: Milestones: Mode 5 - Full Rate Production Decision Review (FRPDR)	4	2012	4	2012
Acquisition Milestones: Milestones: IOC	4	2012	4	2012
Acquisition Milestones: Milestones: Mode 5 - Joint IOC	4	2014	4	2014
Test & Evaluation Group: Operational Evaluation: Mode 5 - OT-C2 (IOT&E)	1	2012	1	2012
Test & Evaluation Group: Operational Evaluation: Mode 5 - IOT&E Outbrief	3	2012	3	2012
Test & Evaluation Group: Operational Evaluation: Mode 5 - Follow-on Test and Evaluation	1	2012	4	2018
Production Milestones: Contract Awards: Mode 5 - FRP Contract Award	4	2012	4	2012
Deliveries: Mode 5 - Low-Rate Initial Production Deliveries (DI,CXP) (OPN, APN5, RDTEN)	1	2012	2	2013
Deliveries: Mode 5 - Production Line Insertion	1	2012	4	2017
Deliveries: Mode 5 - Prepare and Evaluate ECPs/SCDs	1	2012	4	2017
Deliveries: Mode 5 - Host Platform Integrations	1	2012	4	2017
Deliveries: Mode 5 - FRP Deliveries	4	2013	4	2017
OE-120/UPX Antenna Improv Identification Dev				
System Development: Reviews: OE-120/UPX Antenna - System Functional Review (SFR)	4	2015	4	2015
System Development: Reviews: OE-120/UPX Antenna - PDR	3	2016	3	2016
System Development: Reviews: Part 1 Engeneering Change Proposal Class 1	1	2012	4	2012

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
0921: *NAVSTAR GPS Equipment*	963.242	19.518	19.652	16.106	-	16.106	20.767	20.963	21.417	21.329	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

NAVSTAR Global Positioning System (GPS) project (0921) is a space-based positioning, navigation, and timing (PNT) system that provides authorized users with secure, worldwide, all weather, three dimensional position, velocity, and precise time data. Research, Development, Testing and Evaluation (RDT&E) funds are used to perform all the non-recurring GPS Surface Ship, Submarine and Aircraft Development, Integration, and Testing efforts. GPS continues to be integrated in all DoD platforms and the development of enhanced GPS is a national security priority.

The Naval Research Advisory Committee (NRAC) GPS Vulnerability Study Panel assessed the Navy's GPS Vulnerabilities and recommended specific actions to resolve serious issues to ensure the continued availability of GPS information in a high risk hostile jamming environment. As a result, the Navy Enhanced GPS User Equipment Operational Requirement Document (ORD) was drafted to address operational requirements. NAVWAR's mission is to provide continued access to GPS information in a denied environment. RDT&E continues to support platform integration requirements, Developmental Test/Operational Test (DT/OT), the Navy's development of a smaller Anti-Jam (AJ) antenna and a conformal low-observable AJ antenna for aircraft with unique requirements, and new technology AJ solutions for submarines.

Two similar but separate ACAT III programs (Air and Sea NAVWAR) have been established and have become the basis for the Navy's Air and Sea Navigation Warfare (NAVWAR) programs. The Sea NAVWAR program is executed in three increments. Increment 1 is GPS Antenna System (GAS-1). Increment 2 is Advanced Digital Antenna Production (ADAP). The purpose of Increments 1 and 2 is to integrate Anti-Jam (AJ) antennas on surface platforms. Increment 3 Submarine Anti-Jam GPS Enhancement (SAGE) will integrate AJ capability on submarines. The Air NAVWAR program is a single increment with GAS-1, ADAP, and other efforts continuing. The Capability Production Document for Sea NAVWAR Increment 2 (12/08) was approved to support the ADAP production and procurement.

The primary GPS shipboard systems fielded on the majority of U.S. Navy ships today include the AN/WRN-6 and the Navigation Sensor System Interface (NAVSSI). These military GPS systems provide precise Position, Navigation, and Time (PNT) data required for many combat, weapons, command, control, communications, navigation, and other systems, as well as providing the time synchronization critical to the network environments.

The Global Position System (GPS)- based Positioning, Navigation, and Timing (PNT) Service (GPNTS system is being developed to replace stand-alone AN/WRN-6 receivers and integrated Navigation Sensor System Interface (NAVSSI) systems. Additionally, future capability will migrate toward a Common Computing Environment (CCE) such as Consolidated Afloat Networks Enterprise Services (CANES).

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Air Navigation Warfare (NAVWAR)	5.244	2.279	2.086
Articles:	0	0	0
FY 2012 Accomplishments: Received Suitable and effective OT Report on NAVWAR for F/A-18E/F and EA-18G. Received positive Acquisition Decision for F/A-18E/F and EA-18G and completed validation and verification installations on F/A-18F. Participated in Small Antenna System (SAS) development with qualification testing and installation on a MQ-8B Fire Scout platform. Continued integration of NAVWAR on MH-53E and AV-8B and supported forward fit platforms. Initiated NAVWAR integration and installation on EP-3E. Continued GPS Modernization platform impact studies and provided Navy unique requirements to the GPS Directorate. Continued to coordinate GPS Modernization efforts with other programs and DoD services to reduce impacts to platform navigation systems. Performed E-2 timing impact study in coordination with N81. Kept the Fleet apprised of GPS Enterprise Selective Availability Anti-Spoofing Module (SAASM) and Architecture Evolution Plan (AEP) developments and coordinated testing of latest AEP version. Participated in joint NAVWAR Memorandum of Understanding (MOU) initiatives with Canada, United Kingdom and Australia.			
FY 2013 Plans: Continue to assist other air platforms with integration of anti-jam capability to include Unmanned Air Systems (UAS) and weapons. Complete validation and verification installations for all lots of F/A-18E/F and EA-18G receiving NAVWAR. Complete MH-53E and AV-8B installations. Investigate assured PNT options for Naval aircraft. Continue to provide GPS Modernization Navy unique requirements to GPS Directorate. Continue to coordinate GPS Modernization efforts with other programs and DoD services to reduce impacts to platform navigation systems. Continue to keep the Fleet apprised of GPS Enterprise Selective Availability Anti-Spoofing Module (SAASM) and AEP developments. Participate in joint NAVWAR MOU initiatives with Canada, United Kingdom and Australia including cooperative UAS NAVWAR development. Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion.			
FY 2014 Plans: Continue to assist other air platforms with integration of anti-jam capability to include UAS and weapons. Begin Production installations of NAVWAR in F/A-18F. Continue assured PNT efforts. Continue to provide GPS Modernization Navy unique requirements to GPS Directorate. Continue to coordinate GPS Modernization efforts with other programs and DoD services to reduce impacts to platform navigation systems. Continue to assist the Fleet with GPS Enterprise SAASM and AEP developments. Participate in joint NAVWAR MOU initiatives with Canada, United Kingdom and Australia. Begin assured PNT development. Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion.			
Title: Sea Navigation Warfare (NAVWAR)	2.915	1.367	1.910
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Increment 2: Completed preparatory efforts in support of Carrier, Fixed Wing, Aircraft, Nuclear (CVN) Developmental Test (DT) scheduled for first quarter FY13. Completed Guided Missile Cruiser (CG) DT. Increment 3: Completed a Technical Readiness Assessment (TRA) in support of Submarine Anti-Jam GPS Enhancement (SAGE) technology development and began prototype development. ***FY 2013 Plans:*** Increment 2: Complete CVN DT. Conduct Landing Helicopter (LHD) DT. Increment 3: Continue SAGE prototype development and procure up to four Submarine AJ GPS Enhancement (SAGE) prototypes to support risk reduction, technology maturation, integration, and Developmental Testing (DT) activities. Conduct SAGE DT, performance, and environmental testing. Overall program efforts include investigation of emerging technologies through study, development, and associated testing for feasibility of program insertion. ***FY 2014 Plans:*** Increment 3: Complete SAGE DT. Begin GPS AJ SAGE efforts in support of SAGE/OE-538 integrated Production Representative Article (PRA) development. Overall program efforts include investigation of emerging technologies through study, development, and associated testing for feasibility of program insertion.			
Title: Global Positioning System (GPS) - Based Positioning, Navigation and Timing (PNT) Service (GPNTS)	11.359	16.006	12.110
Articles:	0	0	0
FY 2012 Accomplishments: Conducted the System Functional Review (SFR) and the Initial Baseline Review (IBR) with the Contractor. Completed a Preliminary Design Review (PDR) with the Contractor. Provided engineering and technical support to the Contractor, ensuring system design and software development are aligned with the Capabilities Development Document (CDD) and the Technical Requirements Document (TRD). Reviewed all contract deliverables and attended Contractor Engineering, Program Management, Test and Evaluation, and Logistics Integrated Product Team (IPT) meetings. Reported on contract Earned Value Management (EVM) objectives and manage the program's Integrated Master Schedule (IMS) with the Contractor. Updated program acquisition documentation, specifically the Integrated Support Plan, the Cost Analysis Requirements Document (CARD) and the Program Life Cycle Cost Estimate (PLCCE). Identified potential programmatic and design efficiencies to establish the program's first Should-Cost target. ***FY 2013 Plans:*** Prepare the program for the Critical Design Review (CDR). Brief the Milestone Decision Authority (MDA) on the design review outcomes. Obtain an updated Acquisition Decision Memorandum (ADM) to proceed from CDR to Milestone C. Complete the draft Life Cycle Support Plan (LCSP), Capabilities Production Document (CPD), and Test and Evaluation Master Plan (TEMP)			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
to support a Milestone C decision. Accredit both Contractor and Government Labs to prepare the program to conduct Integrated Test Events. Track the program's IMS and report EVM metrics as required. Begin updates of all DoD series acquisition statutory and regulatory documentation as required to support a MS C decision. Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion. ***FY 2014 Plans:*** Prepare the program for the delivery of the Engineering Development Models (EDMs) and begin lab testing including Independent Verification and Validation (IV&V) test events. Conduct Combat Systems Certification Testing in Dahlgren, VA. Finalize IOT&E platform selection and install preparations. Track the program's IMS and report EVM metrics as required. Finalize updates of all DoD series acquisition statutory and regulatory documentation as required to support a MS C decision. Update the CARD, PLCCE, and Acquisition Program Baseline (APB) for the MS C decision. Overall program efforts include investigation of emerging technologies through study, development and associated testing for feasibility of program insertion.			
Accomplishments/Planned Programs Subtotals	19.518	19.652	16.106

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN / 2657: *NAVSTAR GPS Receivers (Space)*	11.847	9.089	11.765		11.765	17.608	16.630	16.467	16.759	Continuing	Continuing
• APN / 0577: *Common Avionics*	11.735	8.025	8.073		8.073	8.099	8.497	8.645	8.806	173.909	577.633

Remarks

D. Acquisition Strategy

Navigation Warfare (NAVWAR): The Sea NAVWAR program is executed in three increments. Increment 1 is GPS Antenna System (GAS-1). Increment 2 is Advanced Digital Antenna Production (ADAP). The purpose of Increments 1 and 2 is to integrate AJ antennas on surface platforms. Increment 3 Submarine Ant-Jam GPS Enhancement (SAGE) will integrate AJ capability on submarines. The Air NAVWAR program is executed in a single increment with GAS-1 and ADAP to integrate on air platforms, and development of a smaller Anti-Jam (AJ) antenna and a conformal low-observable AJ antenna for aircraft with unique requirements.

GPNTS: The GPS-based Positioning Navigation and Timing (GPNTS) program will be conducted in two increments. Increment I will develop, acquire, and field the GPNTS, a scalable Selective Availability/ Anti-Spoofing Module (SAASM) GPS-based Service Oriented Architecture Positioning, Navigation, and Timing (PNT) system that will provide an open, extensible, modernized replacement for the current fleet PNT systems, while targeting Common Computing Environments (CCE). Increment II will integrate Military GPS User Equipment (MGUE) that will allow the U.S. Navy to leverage current and future technology development provided by the GPS Wing, formerly known as the GPS Joint Program Office (JPO). GPNTS will operate at the UNCLASSIFIED level, and can provide the PNT data to higher classified systems.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*

E. Performance Metrics

The primary metric used for the Air NAVWAR Program is acceptable system performance in a GPS denied environment which is defined by classified values of jamming to signal ratio (J/S) identified in the Enhanced GPS User Equipment (UE) Operational Requirements Document (ORD) 562-06-00 of 7 June 2000. The performance goal is met if acceptable system performance is achieved in the threshold J/S environment cited in the classified appendix.

The primary metric used for the Sea NAVWAR is acceptable system performance in a GPS denial environment defined by classified values of jamming to signal ratio (J/S) identified in the Sea NAVWAR Increment 2 Capabilities Production Document (CPD) (12/08). The performance goal is met if acceptable system performance is achieved in the threshold J/S environment cited in the CPD.

The primary metrics used for the GPNTS is successful completion of the system development as outlined in the GPNTS Technical Requirements Document (TRD).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	WR	SSC PAC/ NAWC:San Diego/ China Lake, Pax River	275.775	0.000		0.000		0.000		-		0.000	0.000	275.775	
Product Development	WR	SSC PAC:San Diego	71.009	0.900	Oct 2011	0.910	Oct 2012	0.749	Oct 2013	-		0.749	Continuing	Continuing	Continuing
Product Dev (other in house)	WR	SSC PAC:San Diego	438.896	0.000		0.000		0.000		-		0.000	0.000	438.896	
Systems Engineering	WR	Govt/Contractor:San Diego	20.141	0.855	Jan 2012	0.900	Jan 2013	0.741	Jan 2014	-		0.741	Continuing	Continuing	Continuing
Product Development	C/CPIF	Raytheon:San Diego	2.593	8.030	Jan 2012	6.995	Jan 2013	5.770	Jan 2014	-		5.770	Continuing	Continuing	Continuing
Product Development	C/CPFF	Boeing:St Louis	15.445	0.000		0.000		0.000		-		0.000	0.000	15.445	
		Subtotal	823.859	9.785		8.805		7.260		0.000		7.260			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	SSC PAC/ NAWC:San Diego/ Pax River/China Lake	12.710	0.000		0.000		0.000		-		0.000	0.000	12.710	
Software Development	WR	SSC PAC/ NAWC:San Diego/ Pax River/ China Lake	10.450	0.000		0.000		0.000		-		0.000	0.000	10.450	
Integrated Logistics Support	WR	SSC PAC/ NAWC:San Diego/ Pax River	7.102	0.596	Dec 2011	0.650	Dec 2012	0.535	Dec 2013	-		0.535	Continuing	Continuing	Continuing
Training Development	WR	SSC PAC/ NAWC:San Diego/ Pax River	5.375	0.000		0.000		0.000		-		0.000	0.000	5.375	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Data	WR	Platform PMOs:San Diego	4.650	0.000		0.000		0.000		-		0.000	0.000	4.650	
Technical Data	C/CPAF	BAH:San Diego, Pax River	0.000	0.496	Jan 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Technical Data	WR	SSC PAC:San Diego	0.000	2.000	Dec 2011	2.240	Dec 2012	1.844	Dec 2013	-		1.844	Continuing	Continuing	Continuing
Technical Data	WR	NAWC:Pax River	0.000	0.254	Dec 2011	0.275	Dec 2012	0.226	Dec 2013	-		0.226	Continuing	Continuing	Continuing
Technical Data	WR	NAWC:China Lake	0.000	0.250	Dec 2011	0.290	Dec 2012	0.239	Dec 2013	-		0.239	Continuing	Continuing	Continuing
Technical Data	C/CPFF	BAH:San Diego, Pax River, China Lake	0.000	0.000		0.630	Nov 2012	0.519	Nov 2013	-		0.519	0.000	1.149	
		Subtotal	40.287	3.596		4.085		3.363		0.000		3.363			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	WR	SSC PAC/NAWC PAX:San Diego/Pax River	29.729	0.608	Nov 2011	0.700	Nov 2012	0.576	Nov 2013	-		0.576	Continuing	Continuing	Continuing
Test & Evaluation	C/CPAF	BAH:Pax River	5.276	0.000		0.000		0.000		-		0.000	0.000	5.276	
Test & Evaluation	WR	SSC PAC:San Diego	8.875	2.677	Dec 2011	3.000	Dec 2012	2.470	Dec 2013	-		2.470	Continuing	Continuing	Continuing
Test & Evaluation Platform Testing	WR	SSC PAC:San Diego	32.027	0.000		0.000		0.000		-		0.000	0.000	32.027	
		Subtotal	75.907	3.285		3.700		3.046		0.000		3.046			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPAF	BAH:Pax River, San Diego	19.989	2.852	Jan 2012	0.000		0.000		-		0.000	0.000	22.841	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*	

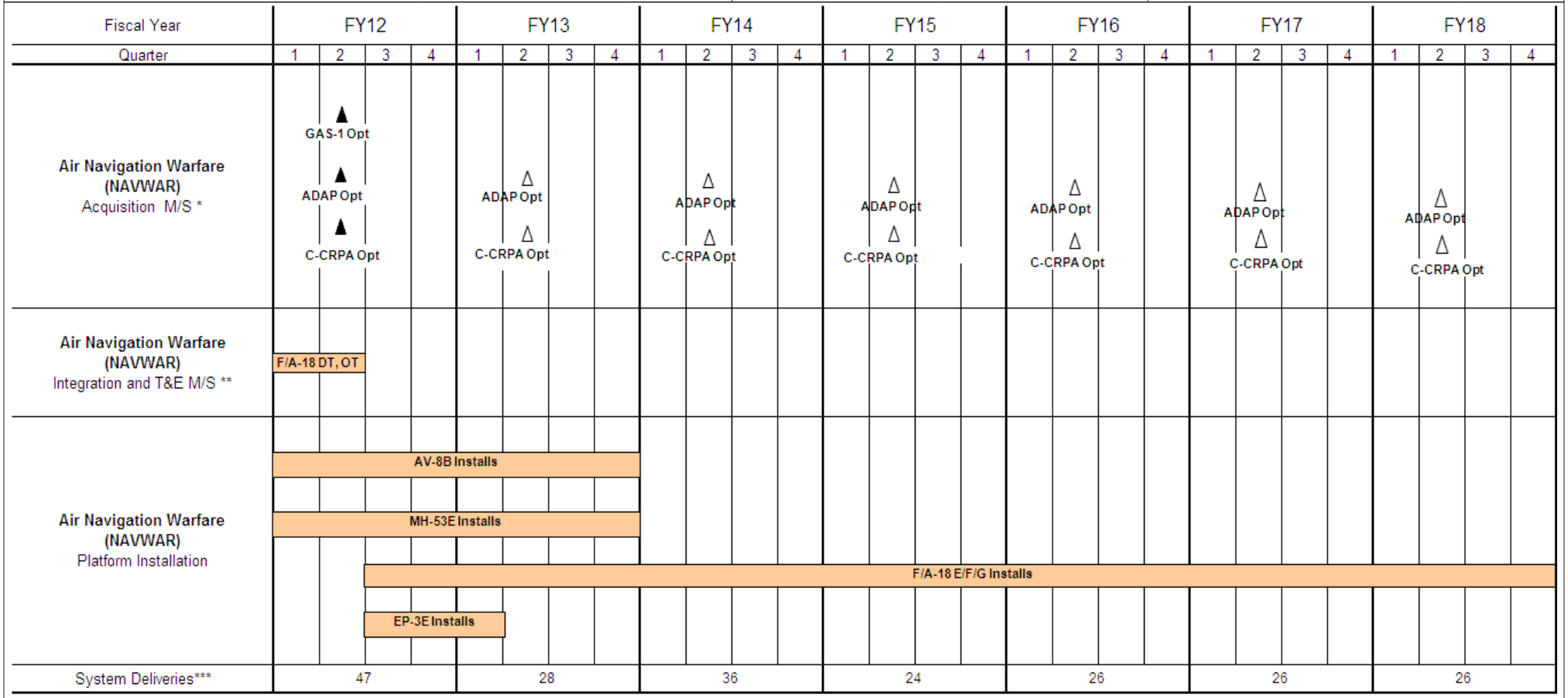
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPAF	BAH:San Diego, Pax River, China Lake	0.000	0.000		3.062	Jan 2013	2.437	Jan 2014	-		2.437	Continuing	Continuing	Continuing
Contractor Engineering Services	C/CPAF	BAH:San Diego, Pax River, China Lake	1.400	0.000		0.000		0.000		-		0.000	0.000	1.400	
Government Engineering Services	WR	SSC PAC, NAWC:San Diego, China Lake, Pax River	1.800	0.000		0.000		0.000		-		0.000	0.000	1.800	
		Subtotal	23.189	2.852		3.062		2.437		0.000		2.437			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	963.242	19.518		19.652		16.106		0.000		16.106			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*



* ADAP (Advanced Digital Antenna Production), C-CRPA (Conformal Controlled Reception Pattern Antenna), GAS-1/1N (GPS Antenna System /Navy) are Anti-Jam (AJ) antenna solutions for designated platforms.

** MDA direction of 3/30/06 directed streamlining Air NAVWAR program from three phases to one. Milestone C decision of Oct 2001 applies to all current phases.

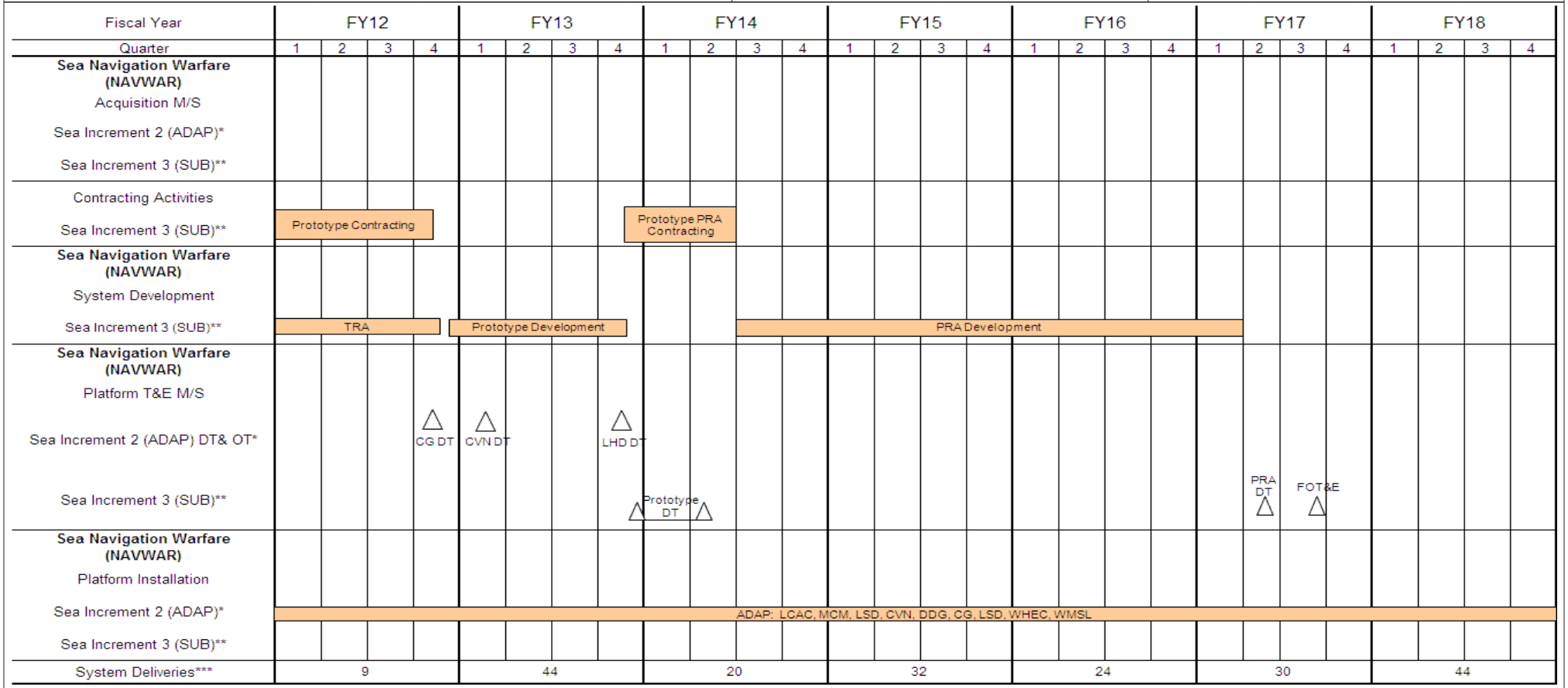
*** APN quantities are approximate year-end total number of NAVWAR system deliveries. Quantities do not include RDT&E units, Spares, or those projected for new construction aircraft.

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*

Fiscal Year	FY12				FY13				FY14				FY15				FY16				FY17				FY18			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Global Positioning System (GPS) - Based Positioning, Navigation and Timing (PNT) Service (GPNTS) Milestone/Acquisition Increment 1 *		▲ PDR ▲ Post PDR Assessment						△ CDR							△ MS C					△ IOC		△ FRP DR						
GPNTS Milestone/Acquisition Increment 2 **												△	Pre MS B Activities															
GPNTS Contracts										△ EDM Delivery				△ LRIP Option						△ FRP Option								
GPNTS Test & Evaluation Increment 1 *								△ Integrated Testing							△ OTRR △ Technical Eval			△ IOT&E △ JITC Testing										
System Deliveries									3				6				6				5				5			

* Global Positioning System (GPS) Positioning, Navigation, Timing (PNT) Service GPNTS will be a single Program of Record (POR), which will receive, process, and distribute three dimensional position, velocity, acceleration, time, and frequency in the formats required by shipboard user systems. GPNTS will be scalable to accommodate back fit of current legacy PNT systems as well as forward fit of new platforms.
* Increment 1 will develop, acquire, and field a baseline GPNTS integrating current Selective Availability Anti-Spoof Module (SAASM) GPS receiver. GPNTS will be based on open standards in a Service Oriented Architecture (SOA) that will provide an open, extensible, and modernized replacement for the current fleet PNT systems, while targeting Common Computing Environments (CCE).
** Increment 2 will integrate Military GPS User Equipment (MGUE), which will allow the U.S. Navy to leverage current and future technology that will allow the U.S. Navy to leverage current and future technology development provided by the GPS Wing (GPSW), including Military Code (M-Code).

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*



*ADAP is the Advanced Digital Antenna Production program, the Navy's development of a smaller Anti-Jam (AJ) antenna.

**Sea NAVWAR Increment 3 - Submarine (SUB): Per MDA Merger Decision dated 24 July 2012 , the Sea NAVWAR Increment 3 program will merge witth the OE-538 Increment 2 program. Preparations are being conducted to restructure Sea NAVWAR acqusition documentation e.g. APBA to reflect this merger.

***Quantities are approximate year-end total number of NAVWAR system deliveries. Quantities do not include RDT&E units, SCN or Spares.

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*

Schedule Details

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 0921				
Air Navigation AV-8B Installations	1	2012	4	2013
Air Navigation F/A 18 E/F/G DT/OT	1	2012	2	2012
Air Navigation MH-53E Installations	1	2012	4	2013
Air Navigation GAS-1 Option 2012	2	2012	2	2012
Air Navigation ADAP Option 2012	2	2012	2	2012
Air Navigation C-CRPA Option 2012	2	2012	2	2012
Air Navigation F/A-18 E/F/G Installations	3	2012	4	2018
Air Navigation EP-3E Installs	3	2012	1	2013
Air Navigation ADAP Option 2013	2	2013	2	2013
Air Navigation C-CRPA Option 2013	2	2013	2	2013
Air Navigation ADAP Option 2014	2	2014	2	2014
Air Navigation C-CRPA Option 2014	2	2014	2	2014
Air Navigation ADAP Option 2015	2	2015	2	2015
Air Navigation C-CRPA Option 2015	2	2015	2	2015
Air Navigation ADAP Option 2016	2	2016	2	2016
Air Navigation C-CRPA Option 2016	2	2016	2	2016
Air Navigation ADAP Option 2017	2	2017	2	2017
Air Navigation C-CRPA Option 2017	2	2017	2	2017
Air Navigation ADAP Option 2018	2	2018	2	2018
Air Navigation C-CRPA Option 2018	2	2018	2	2018
Sea Navigation Increment 3 (SUB) Prototype Contracting	1	2012	4	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Sea Navigation Increment 3 (SUB) Prototype PRA Contracting	4	2013	2	2014
Sea Navigation Increment 3 (SUB) Technical Readiness Assessment	1	2012	4	2012
Sea Navigation Increment 3 (SUB) Prototype Development	4	2012	4	2013
Sea Navigation Increment 3 (SUB) PRA Development	3	2014	1	2017
Sea Navigation Increment 2 (ADAP) CG DT	4	2012	4	2012
Sea Navigation Increment 2 (ADAP) CVN DT	1	2013	1	2013
Sea Navigation Increment 2 (ADAP) LHD DT	4	2013	4	2013
Sea Navigation Increment 3 (SUB) Prototype DT	4	2013	2	2014
Sea Navigation Increment 3 (SUB) PRA DT	2	2017	2	2017
Sea Navigation Increment 3 (SUB) FOT&E	3	2017	3	2017
Sea Navigation Increment 2 (ADAP) Installations	1	2012	4	2018
GPNTS Post PDR Assessment	2	2012	2	2012
GPNTS PDR	2	2012	2	2012
GPNTS Increment 1 Integrated Test 3rd Qtr	4	2013	4	2013
GPNTS CDR	4	2013	4	2013
GPNTS Increment 1 EDM Delivery	1	2014	1	2014
GPNTS INCREMENT 2 MS B Prep Activities	4	2014	4	2014
GPNTS MS C	3	2015	3	2015
GPNTS M/S C LRIP	1	2015	1	2015
GPNTS Increment 1 OTRR	3	2015	3	2015
GPNTS Increment 1 Tech Eval	4	2015	4	2015
GPNTS Increment 1 IOT&E	1	2016	1	2016
GPNTS Increment 1 JITC Testing	1	2016	1	2016
GPNTS IOC	4	2016	4	2016
GPNTS FRP DR	1	2017	1	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 0921: *NAVSTAR GPS Equipment*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
GPNTS Increment 1 FRP Option A	3	2016	3	2016

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 1253: *Combat Ident System*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
1253: *Combat Ident System*	140.856	11.256	18.250	20.107	-	20.107	4.530	3.939	3.745	2.024	Continuing	Continuing
Quantity of RDT&E Articles	0	4	10	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

In August 2003 the Navy Mark XIIA Mode 5 program was approved for entry in Systems Development and Demonstration phase with approval to develop prototypes. In July 2006, the Navy Mark XIIA Mode 5 program was approved for entry into the Production and Deployment Phase and Low Rate Initial Production. In March 2007, Joint Requirements Oversight Council Memorandum (047-07) endorsed a Mode 5 Joint Initial Operational Capability (IOC) in FY14 and Joint Full Operational Capability in 2020.

RDT&E articles include Mode 5 cryptographic modules and associated hardware and software changes, AN/APX-123, AN/APX-119, and AN/APX-111. These RDT&E units are to support hardware, software, and integration efforts to host systems on remaining aircraft Type/Model/Series, including AH-1Z/UH-1Y, E-2D, MH-60R/S, MV-22, KC-130J, and F/A-18E/F and EA-18G.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Mode 5 prototype hardware, cryptographic module	6.938	12.568	11.327
Articles:	4	10	0

Description: Perform development of kits for installation into existing fleet assets including AN/UPX-37/41C Interrogator, AN/APX-118/123 Common Digital Transponder, and AN/APX-111 Combined Interrogator Transponder. Repair and correct deficiencies identified during testing and procure low rate initial production (LRIP) units (OPN, APN5, and RDTE) to support testing and platform integration. LRIP units include Mode 5 cryptographic module install kits for AN/UPX-37/41C, AN/APX-118/123, AN/APX-119, and AN/UPX-24 with associated hardware and software changes to the host boxes. Perform platform integration efforts for the AN/UPX-37/41C Interrogator, AN/APX-118/123 Common Digital Transponder, AN/APX-119 Transponder, and AN/APX-111 Combined Interrogator Transponder.

FY 2012 Accomplishments:
Continued integration in MV-22, F/A-18E/F and EA-18G aircraft.

FY 2013 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 1253: *Combat Ident System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue integration and finalize equipment qualification testing of the Mode 5 AN/APX-111 Combined Interrogator Transponder (CIT) in the F/A-18E/F and EA-18G aircraft with the H10 Mission Computer software to support start of developmental test. Initiate integration of the AN/APX-119 transponder in the KC-130J aircraft. MV-22 APX-123 integration will finalize in FY13. ***FY 2014 Plans:*** Finalize integration of the Mode 5 AN/APX-111 CIT in the F/A-18E/F and EA-18G aircraft to support Mode 5 Joint IOC requirement. Continue integration of the AN/APX-119 transponder in the KC-130J.			
Title: Mode 5 systems Engineering and Integrated Logistics Support (ILS)	2.597	1.851	2.769
Articles:	0	0	0
Description: Performed systems engineering and analysis in support of Mode 5 hardware/software development on AN/UPX-37/41C Interrogator, AN/APX-118/123 Common Digital Transponder, AN/APX-119 Transponder, AN/APX-111 Combined Interrogator Transponder, Cryptographic Module, Mode 5 Engineering Test Equipment, and Mode 5 support equipment. The Cryptographic Module included, but is not limited to, activities such as ILS, Design and Engineering Studies and Analysis, and Configuration Management performed as the Lead Service. ***FY 2012 Accomplishments:*** Continued systems engineering and analysis for MV-22, F/A-18E/F and EA-18G aircraft. ***FY 2013 Plans:*** Continue systems engineering and analysis for MV-22, F/A-18E/F and EA-18G aircraft and begin flight test. ***FY 2014 Plans:*** Finalize systems engineering and logistics efforts in support of fleet fielding of the Mode 5 CIT for the F/A-18E/F and EA-18G. Initiate planning and development of logistics products for the KC-130J APX-119.			
Title: Mode 5 Upgrade Developmental Test & Operational Test	1.721	3.831	6.011
Articles:	0	0	0
Description: Perform Mode 5 developmental and operational test phases for AN/UPX-37/41C Interrogator, AN/APX-118/123 Common Transponder, AN/APX-119 Transponder, and AN/APX-111 Combined Interrogator Transponder. ***FY 2012 Accomplishments:*** Conducted initial lab testing on Mode 5 AN/APX-111, integrated testing on the MV-22 and operational testing on the E-2D and MV-22. ***FY 2013 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 1253: *Combat Ident System*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue lab testing on Mode 5 AN/APX-111, integrated testing on the MV-22 and operational testing on the E-2D and MV-22. ***FY 2014 Plans:*** Finalize developmental testing and conduct operational testing on the F/A-18E/F and EA-18G of the Mode 5 CIT equipment and platform H10 Mission Computer integration software in support of fleet release of the Mode 5 capability at the end of 2014.			
Accomplishments/Planned Programs Subtotals	11.256	18.250	20.107

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2851: *Identification Systems*	31.470	35.474	38.934		38.934	38.570	35.096	29.038	29.513	Continuing	Continuing
• APN/0582: *Identification Systems*	32.030	39.846	41.800		41.800	46.830	55.314	47.166	47.974	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Acquisition Strategy is to develop Mode 5 Engineering Change Proposals for modern Mark XII Identification Friend or Foe equipment and integrate into all Navy Combat Weapons systems platforms and transition the Navy's Cooperative Identification Capability to Mode 5.

E. Performance Metrics

Begin Full Rate Production and achieve Initial Operational Capability in FY 2012.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 1253: *Combat Ident System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/FFP	Lockheed:Owego, NY	3.354	0.000		0.000		0.000		-		0.000	0.000	3.354	7.005
Primary Hardware Development	WR	NAWCWD:China Lake CA	12.027	0.000		2.735	Jan 2013	5.821	Feb 2014	-		5.821	0.294	20.877	
Primary Hardware Development	SS/CPFF	Northrup Grumman:Bethpage NY	3.886	0.000		0.000		0.000		-		0.000	0.000	3.886	5.587
Primary Hardware Development	Various	BAE:Greenlawn NY	26.343	0.093	Apr 2012	0.114	Jan 2013	0.000		-		0.000	0.000	26.550	27.097
Primary Hardware Development	Various	Boeing:Philiadelphia, PA	6.683	0.250	Jun 2012	0.000		0.000		-		0.000	0.000	6.933	7.547
Primary Hardware Development	Various	Raytheon:Towson, MD	1.164	0.000		0.000		0.000		-		0.000	0.000	1.164	1.517
Primary Hardware Development	Various	Boeing:St Louis. MO	17.521	5.095	Jun 2012	8.960	Jan 2013	5.506	Jan 2014	-		5.506	4.551	41.633	61.461
Systems Engineering	WR	NAWCAD:PAX River, MD	10.671	1.251	Nov 2011	1.682	Nov 2012	1.605	Nov 2013	-		1.605	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWCAD:St Inigoes, MD	13.457	0.068	Nov 2011	0.125	Nov 2012	0.540	Nov 2013	-		0.540	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWCWD:China Lake, CA	0.600	0.000		0.000		0.000		-		0.000	0.000	0.600	
Primary Hardware Development	Various	L-3:Waco, TX	0.000	0.000		0.759	Mar 2013	0.000		-		0.000	0.224	0.983	3.275
		Subtotal	95.706	6.757		14.375		13.472		0.000		13.472			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ILS	Various	Various:Various	3.552	0.117	Nov 2011	0.045	Nov 2012	0.624	Nov 2013	-		0.624	Continuing	Continuing	Continuing
Software Development	Various	Various:Various	2.708	0.000		0.000		0.000		-		0.000	0.000	2.708	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 1253: *Combat Ident System*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical data	Various	Various:Various	0.053	0.000		0.000		0.000		-		0.000	0.000	0.053	
		Subtotal	6.313	0.117		0.045		0.624		0.000		0.624			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental T & E	WR	NAWCAD:PAX River MD	14.612	4.192	Nov 2011	3.830	Nov 2012	3.767	Nov 2013	-		3.767	7.705	34.106	
Operational T & E	WR	NAWCAD:PAX River MD	16.433	0.190	Nov 2011	0.000		2.244	Nov 2013	-		2.244	0.000	18.867	
Test Assets	Various	Various:Various	3.396	0.000		0.000		0.000		-		0.000	0.000	3.396	
		Subtotal	34.441	4.382		3.830		6.011		0.000		6.011	7.705	56.369	

Management Services ($ in Millions)

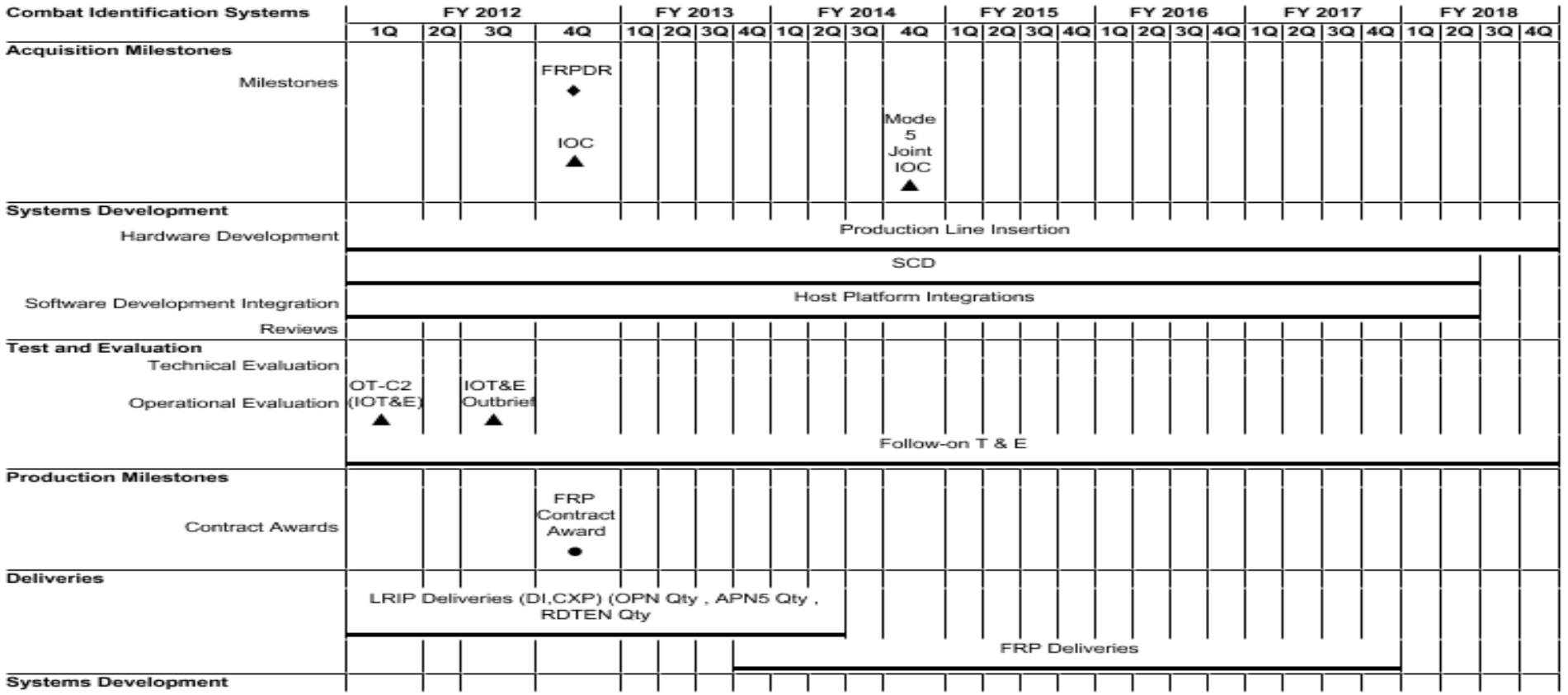
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract Engineering Support	Various	Various:Various	0.450	0.000		0.000		0.000		-		0.000	0.000	0.450	0.450
Government Engineering Support	Various	Various:Various	1.811	0.000		0.000		0.000		-		0.000	0.000	1.811	
Program Management Support	Various	Various:Various	1.961	0.000		0.000		0.000		-		0.000	0.000	1.961	
ETS (Non-FFRDC)	WR	Various:PAX River MD	0.174	0.000		0.000		0.000		-		0.000	0.000	0.174	
		Subtotal	4.396	0.000		0.000		0.000		0.000		0.000	0.000	4.396	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 1253: *Combat Ident System*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	140.856	11.256		18.250		20.107		0.000		20.107			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 1253: *Combat Ident System*



2014PB - 0604777N - 1253

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604777N: *Navigation/Id System*	PROJECT 1253: *Combat Ident System*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Combat Identification Systems				
Acquisition Milestones: Milestones: Full Rate Production Decision Review (FRPDR)	4	2012	4	2012
Acquisition Milestones: Milestones: IOC	4	2012	4	2012
Acquisition Milestones: Milestones: Mode 5 Joint IOC	4	2014	4	2014
Systems Development: Hardware Development: Production Line Insertion	1	2012	4	2018
Systems Development: Hardware Development: Prepare & Evaluate ECPs/SCDs	1	2012	2	2018
Systems Development: Software Development Integration: Host Platform Integrations	1	2012	2	2018
Test and Evaluation: Operational Evaluation: OT-C2 (IOT&E)	1	2012	1	2012
Test and Evaluation: Operational Evaluation: IOT&E Outbrief	3	2012	3	2012
Test and Evaluation: Operational Evaluation: Follow-on Test and Evaluation	1	2012	4	2018
Production Milestones: Contract Awards: FRP Contract Award	4	2012	4	2012
Deliveries: Low-Rate Initial Production (LRIP) Deliveries (DI,CXP) (OPN, APN5, RDTEN)	1	2012	2	2014
Deliveries: FRP Deliveries	4	2013	4	2017

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	39,573.685	617.695	737.149	512.631	-	512.631	592.304	515.742	359.012	269.091	Continuing	Continuing
2262: *Joint Strike Fighter EMD STOVL*	39,573.685	617.695	737.149	482.823	-	482.823	557.360	439.945	244.047	96.185	Continuing	Continuing
3350: *F-35B Sustainment/ Capability Enhancements*	0.000	0.000	0.000	14.904	-	14.904	14.976	14.960	0.000	0.000	0.000	44.840
3351: *F-35B Follow-on Development*	0.000	0.000	0.000	14.904	-	14.904	19.968	60.837	114.965	172.906	Continuing	Continuing
MDAP/MAIS Code(s): 198												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The F-35 Joint Strike Fighter (JSF) Program will develop and field an affordable, highly common family of next generation strike aircraft for the United States Navy, Air Force, Marine Corps and allies. The three variants are the F-35A Conventional Takeoff and Landing (CTOL); F-35B Short Takeoff and Vertical Landing (STOVL); and the F-35C Aircraft Carrier suitable Variant (CV). The CTOL will be a stealthy multi-role aircraft, primary air-to-ground for the Air Force to replace the F-16 and A-10 and complement the F-22. The STOVL variant will be a multi-role strike fighter aircraft to replace the AV-8B and F/A-18A/C/D for the Marine Corps, replace the Sea Harrier and GR 7 for the United Kingdom, and replace the AV-8 currently employed by the Italian Navy. The CV will provide the DoN a multi-role, stealthy strike fighter aircraft to complement the F/A-18E/F.

The United Kingdom, other International Partner nations, and Foreign Military Sales customers are also participants in the JSF program. The program shown here reflects USN, USMC, USAF, and International Partner funding.

Funding at the accomplishment/planned program level is reported as the total of all services and partners as these activities support all aircraft variants.

The SDD Budget funds a total quantity of 20 RDT&E test articles to include 6 ground test articles and 14 flight test articles for Navy and Air Force use.

FY07: 1 Conventional Take Off and Landing (CTOL) flight test article
FY08: 1 Short Take Off and Vertical Landing (STOVL) flight test article; 1 STOVL ground test article
FY09: 1 STOVL flight test article; 2 CTOL ground test articles
FY10: 6 flight test articles: 3 CTOL, 2 STOVL, 1 Carrier Variant (CV); 3 ground test articles: 1 STOVL, 2 CV
FY11: 4 flight test articles: 1 CTOL, 1 STOVL, 2 CV

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*

FY13: 1 CV flight test article

BA5 - This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting Engineering and Manufacturing Development (EMD) tasks aimed at meeting validated requirements prior to full-rate production.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	651.786	737.149	693.484	-	693.484
Current President's Budget	617.695	737.149	512.631	-	512.631
Total Adjustments	-34.091	0.000	-180.853	-	-180.853
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-17.800	0.000			
• SBIR/STTR Transfer	-16.291	0.000			
• Rate/Misc Adjustments	0.000	0.000	-180.853	-	-180.853

Change Summary Explanation

The SDD funding profile has been rephased (FY14-17) to better align resources to requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*				PROJECT 2262: *Joint Strike Fighter EMD STOVL*			
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
2262: *Joint Strike Fighter EMD STOVL*	39,573.685	617.695	737.149	482.823	-	482.823	557.360	439.945	244.047	96.185	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Total cost including USN, USMC, International partner contributions and USAF funding are: FY12 $2,735.504M, FY13 $2,803.393M and FY14 $1,777.322M. R-2 data reflects variant unique funding only.

R2A costs shown above reflects service funding only.

R-2A(section B)/R-3 displays total combined Service (i.e. not Service specific), including International partners, funding for JSF Engineering and Manufacturing Development(EMD) and JSF Deployability and Suitability Enhancements (D&S).

JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

D&S Includes:
USAF PE 0604800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
UASF PE 0207142F BPAC 675346
USN FY13 PE 0604800N Project Unit 2261
USN FY14 PE 0604800N Project Unit 3353
USMC FY13 PE 0604800M Project Unit 2262
USMC FY14 PE 0604800M Project Unit 3351

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	**PROJECT** 2262: *Joint Strike Fighter EMD STOVL*

A. Mission Description and Budget Item Justification

The F-35 Joint Strike Fighter (JSF) Program will develop and field an affordable, highly common family of next generation strike aircraft for the United States Navy, Air Force, Marine Corps and allies. The three variants are the F-35A Conventional Takeoff and Landing (CTOL); F-35B Short Takeoff and Vertical Landing (STOVL); and the F-35C Aircraft Carrier suitable Variant (CV). The CTOL will be a stealthy multi-role aircraft, primary air-to-ground for the Air Force to replace the F-16 and A-10 and complement the F-22. The STOVL variant will be a multi-role strike fighter aircraft to replace the AV-8B and F/A-18A/C/D for the Marine Corps, replace the Sea Harrier and GR 7 for the United Kingdom, and replace the AV-8 currently employed by the Italian Navy. The CV will provide the DoN a multi-role, stealthy strike fighter aircraft to complement the F/A-18E/F.

The United Kingdom, other International Partner nations, and Foreign Military Sales customers are also participants in the JSF program. The program shown here reflects USN, USMC, USAF, and International Partner funding.

The top-line Program Element reflects the unique variant for each Service. Funding at the accomplishment/planned program level is reported as the total of all services and partners as these activities support all aircraft variants.

The SDD Budget funds a total quantity of 20 RDT&E test articles to include 6 ground test articles and 14 flight test articles for Navy and Air Force use.

FY07: 1 Conventional Take Off and Landing (CTOL) flight test article
FY08: 1 Short Take Off and Vertical Landing (STOVL) flight test article); 1 STOVL ground test article
FY09: 1 STOVL flight test article; 2 CTOL ground test articles
FY10: 6 flight test articles: 3 CTOL, 2 STOVL, 1 Carrier Variant (CV); 3 ground test articles: 1 STOVL, 2 CV
FY11: 4 flight test articles: 1 CTOL, 1 STOVL, 2 CV
FY13: 1 CV flight test article

BA5 - This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting Engineering and Manufacturing Development (EMD) tasks aimed at meeting validated requirements prior to full-rate production.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: System Development and Demonstration	2,025.446	1,795.102	761.153
Articles:	0	0	0
Description: SDD execution of the Air System (Lockheed Martin) including International Commonality Effort; includes airframe, vehicle and mission systems, autonomic logistics, systems engineering & test efforts.			
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue SDD execution of the Air System, with Lockheed Martin including International Commonality Effort which includes airframe, vehicle systems, mission systems, autonomic logistics, systems engineering, and integrated test efforts. ***FY 2013 Plans:*** Continue SDD execution of Air System (Lockheed Martin), including International Commonality Effort. Efforts include airframe, vehicle systems, mission systems, autonomic logistics, systems engineering, and integrated test efforts. ***FY 2014 Plans:*** Continue SDD execution of Air System (Lockheed Martin), including International Commonality Effort. Efforts include airframe, vehicle systems, mission systems, autonomic logistics, systems engineering, and integrated test efforts. Activity aligned to IMS with planned completion of SDD in 2018.			
Title: F135 Propulsion System ***Articles:*** ***Description:*** SDD execution of the F135 Propulsion System (Pratt & Whitney) including International Commonality Effort; includes testing, autonomic logistics, integration & performing technology maturation efforts. ***FY 2012 Accomplishments:*** Continue SDD execution of the F135 Propulsion System with Pratt & Whitney that includes engine testing, autonomic logistics, integration and performing technology maturation efforts. ***FY 2013 Plans:*** Continue SDD execution of F135 Propulsion System (Pratt & Whitney), including engine testing, autonomic logistics, integration and performing technology maturation efforts. ***FY 2014 Plans:*** Continue SDD execution of the F135 Propulsion System with Pratt & Whitney that includes engine testing, autonomic logistics, integration and performing technology maturation efforts. Funding increase from FY13 to FY14 due to increase of total SDD contract value resulting from the total program baseline review.	277.559 0	359.618 0	399.749 0
Title: F136 Propulsion System ***Articles:*** ***Description:*** SDD execution of the F136 Propulsion System (General Electric/Rolls Royce) ***FY 2012 Accomplishments:***	5.000 0	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continued F136 Propulsion System Development effort by the GE/Rolls Royce Fighter Engine Team.			
Title: Systems Engineering (SE)	44.121	20.063	32.188
Articles:	0	0	0
Description: SDD SE including systems operations requirements analysis, program integration, requirements integration, and interoperability support. ***FY 2012 Accomplishments:*** Continue SDD Systems Engineering (SE) including systems operations requirements analysis, program integration, requirements integration, and interoperability support. ***FY 2013 Plans:*** Continue SDD SE, including systems operations requirements analysis, program integration, requirements integration, and interoperability support. Decrease in funds is due to across the board reduction between both services. ***FY 2014 Plans:*** Continue SDD SE, including systems operations requirements analysis, program integration, requirements integration, and interoperability support.			
Title: Development Test and Evaluation (DT&E)	152.406	374.258	381.713
Articles:	0	0	0
Description: Government DT&E/Operational Testing (OT) in support of first flight of test aircraft. Elements of DT&E include preparation for flight testing and weapons integration testing. ***FY 2012 Accomplishments:*** Continue government DT&E/OT in support of test aircraft. Continue flight sciences testing of Conventional Take Off and Landing (CTOL), Short Take Off Vertical Landing (STOVL), and Carrier Variant (CV) variants to expand the air vehicle envelope to support mission systems testing to include initial Block 2B. Elements of DT&E include preparation for flight testing, weapons integration testing, and component capabilities testing. ***FY 2013 Plans:*** Continue government DT&E/OT in support of test aircraft. Continue flight sciences testing of CTOL, STOVL, and CV variants to expand air vehicle envelope and support mission systems testing (include initial Block 2B). Elements of DT&E include preparation for flight testing, weapons integration testing, and component capabilities testing. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue government DT&E/OT in support of test aircraft. Continue flight sciences testing of CTOL, STOVL, and CV variants to expand air vehicle envelope and support mission systems testing (include initial Block 2B). Elements of DT&E include preparation for flight testing, weapons integration testing, and component capabilities testing.			
Title: Development Support	137.364	140.477	95.760
Articles:	0	0	0
Description: SDD Support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities.			
FY 2012 Accomplishments: Continue SDD support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities.			
FY 2013 Plans: Continue SDD support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities.			
FY 2014 Plans: Continue SDD support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities. Development Support decrease is due to across the board reduction between both services.			
Title: Program Management Support	93.608	113.875	106.759
Articles:	0	0	0
Description: Management support services, civilian pay, travel, engineering technical services, and studies analyses and evaluations in support of program objectives.			
FY 2012 Accomplishments: Continue management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives.			
FY 2013 Plans: Continue management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives. Program Management Support increase is due to increase in Air Systems Nautical Command personnel.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	**PROJECT** 2262: *Joint Strike Fighter EMD STOVL*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives. Program Management Support decrease is due to across the board reduction between both services. Continue use of RDT&E for civilian pay. (Air Force Only).			
Accomplishments/Planned Programs Subtotals	2,735.504	2,803.393	1,777.322
RDT&E, AF/ 0604800F	1,366.147	1,192.506	782.335
International Partner (SDD)	145.664	149.346	4.411
RDT&E,N (Navy)/0604800N/2261	605.998	724.392	507.753
Navy Subtotals	617.695	737.149	482.823

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E/0604800F: *Joint Strike Fighter*	1,366.147	1,192.506	782.335		782.335	621.432	486.094	175.591	77.992	0.000	22,151.183
• International: *International Partner (SDD)*	145.664	149.346	4.411		4.411	0.000	0.000	0.000	0.000	0.000	4,947.074
• APAF/0207142F: *F-35 Joint Strike Strike Fighter*	3,289.615	3,124.302	3,060.770		3,060.770	3,921.250	5,188.155	5,250.891	5,850.477	150,878.750	189,907.778
• RDT&E/0604800N/2261: *JT Strike Fighter (JSF) - EMD*	605.998	724.392	507.753		507.753	570.181	450.625	254.021	23.023	0.000	20,010.797
• APN/0605B: *F-35 Joint Strike Fighter STOVL Spares*	23.430	99.006	41.707		41.707	131.216	94.193	66.423	127.264	0.000	583.239
• APN/0147C: *F-35 Joint Strike Fighter CV AP*	109.066	65.180	94.766		94.766	132.063	185.904	246.779	190.141	3,364.677	5,219.579
• APN/0605C: *F-35 Joint Strike Fighter CV Spares*	29.902	41.466	42.060		42.060	17.310	32.270	121.283	63.995	0.000	348.286
• OPN/4265: *Other Aviation Support Equipment*	5.665	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.665
• International 2: *International Procurement*	1,808.640	3,453.903	5,738.517		5,738.517	7,563.725	8,328.889	8,153.307	7,347.293	0.000	43,848.672
• MC/0207142F: *USAF MILCON*	24.250	13.530	41.900		41.900	72.100	65.000	66.170	11.000	1,554.200	2,358.300

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APAF/0204142F: *USAF Modification Funding*	0.000	147.995	157.777		157.777	245.462	223.683	252.141	256.680	0.000	1,288.348
• FOD/0207142F: *USAF Follow-on Development*	0.000	8.117	23.000		23.000	104.866	132.174	229.912	300.050	0.000	798.119
• 0207142F/USAF: *USAF Spares*	149.556	181.833	103.582		103.582	235.183	271.211	235.251	342.508	0.000	1,971.440
• OPN/4267: *Autonomic Logistics Information System (ALIS)*	0.000	3.826	4.827		4.827	4.554	4.604	5.729	5.830	43.558	72.928
• USAF/OPAF PE 27142F: *OPAF*	0.000	0.600	2.200		2.200	2.943	2.471	2.345	2.387	0.000	12.946
• APN/0592: *F-35 STOVL Series*	0.000	0.000	147.130		147.130	291.910	284.360	176.610	181.234	0.000	1,081.244
• APN/0593: *F-35 CV Series*	0.000	0.000	31.100		31.100	52.900	62.130	98.980	102.456	0.000	347.566
• RDT&E/0604800N/3352: *F-35C Sustainment/Capability Enhancements*	0.000	0.000	14.992		14.992	14.997	14.991	0.000	0.000	0.000	44.980
• RDT&E/0604800N/3353: *F-35C Follow-on Development*	0.000	0.000	11.442		11.442	19.996	60.963	115.057	173.276	0.000	380.734
• USAF SDD BP 653832: *Deployability and Suitability Enhancements*	0.000	17.800	34.000		34.000	33.000	30.000	0.000	0.000	0.000	114.800
• PAF/0207142F: *JSF CTOL Advance Procurement*	228.977	293.400	363.783		363.783	482.795	509.828	578.000	588.404	18,585.140	22,633.855
• DCA/0207142F 676011: *Dual Capable Aircraft (DCA)*	9.682	0.000	10.000		10.000	0.000	0.000	0.000	0.000	0.000	19.682
• APN/0147: *F-35 Joint Strike Fighter CV*	1,447.097	1,007.632	1,135.444		1,135.444	1,082.046	1,468.775	2,054.690	2,532.068	26,737.969	45,618.677
• APN/0152C: *F-35 Joint Strike Fighter STOVL AP*	117.229	106.199	103.195		103.195	143.887	203.057	226.014	136.732	4,095.291	5,755.765
• APN/0152: *F-35 Joint Strike Fighter STOVL*	1,141.906	1,404.737	1,267.260		1,267.260	1,209.937	1,461.056	2,125.324	2,814.618	29,224.711	41,203.070
• USN MILCON: *USN JSF MILCON*	144.400	117.600	209.000		209.000	320.500	151.700	48.100	0.000	830.600	2,259.300
• RDT&E/0604800N/3194: *USN USRL*	26.044	19.534	0.000		0.000	0.000	0.000	0.000	0.000	0.000	149.262

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

The SDD program consists of a cost-reimbursement contract awarded to Lockheed Martin Aeronautics Company to develop the F-35 Air System, consisting of three aircraft variants and its associated logistics support system, for the U.S. Services and international participants. Similarly, a cost-reimbursement contract was awarded to Pratt & Whitney to develop the F135 propulsion system. Ground and flight testing will be conducted during development to accomplish validation and verification, with the extensive use of modeling and simulation to offset the risk of this large, complex, and concurrent lifecycle program. A comprehensive logistics support environment, including an integrated training system for aircrew, maintenance, and support personnel, is also being developed.

On 25 April 2011, the Department of Defense terminated the development of the General Electric Rolls-Royce Fighter Engine Team F136 propulsion system.

The F-35 Program has made international involvement a key element of the acquisition strategy. This includes international partnership in the development, production, and sustainment phases of the lifecycle. Additional international participation includes Foreign Military Sales arrangements.

In Fiscal Year 2007, separate cost-type contracts were awarded to Lockheed Martin Aeronautics Company and Pratt & Whitney to begin low rate initial production for F-35 air vehicles, propulsion systems, and sustainment for the fielded systems. Transition to fixed-price-type contracts occurred with the fourth low rate lot. To provide logistics support for delivered aircraft, Performance-Based Logistics cost-type contracts will be awarded to Lockheed Martin Aeronautics Company and Pratt & Whitney.

At the completion of Low Rate Initial Production, a Defense Acquisition Board review, and Milestone Decision Authority approval, the F-35 Program will enter Full Rate Production. Fixed-price procurement contracts will be awarded for F-35 air vehicles and propulsion systems for the U.S. Services and international participants. Multiyear procurement authority for the F-35 Air System will be requested for Full Rate Production. Concurrently, multiple-year, fixed-price-type Performance Based Logistics contracts for sustainment will be executed to support multi-Service and multi-national requirements.

E. Performance Metrics

The following are the key performance parimeters from the F-35 Selected Acquisition Report dated 31 December 2011:

Performance Metrics reflect Key Program Performance data.

Combat Radius
Conventional Take Off and Landing Does Not Meet Requirement
Carrier Variant (CV) Meets Tripwire Requirement
Short Take Off Vertical Landing (STOVL) Meets/Exceeds Tripwire Requirement

CV Recovery
Maximum Approach Speed Meets Requirement In Tripwire Band

STOVL Performance
Flat Deck (High-High-High Profile Fuel) Meets Requirement In Tripwire Band
Ski Jump (High-Medium-Medium-High Profile Fuel) Meets Requirement In Tripwire Band
Vertical Landing Bring Back Meets Requirement In Tripwire Band

Interoperability
Net Ready Criteria- Meets Requirement In Tripwire Band

Radio Frequency Signature Meets/Exceeds Tripwire Requirement

Force Protection
CB Pilot Protection (New Key Performance Parameters Per CN3) - Meets/Exceeds Tripwire Requirement

Mission Reliability
Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement
CV Exceeds ORD Objective
Short Take Off Vertical Landing (STOVL) USMC Meets/Exceeds Tripwire Requirement
STOVL UK Meets/Exceeds Tripwire Requirement

Sortie Generation Rate
Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement
Carrier Variant (CV) Meets/Exceeds Tripwire Requirement
STOVL USMC Meets/Exceeds Tripwire Requirement
STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprints
CTOL Meets/Exceeds Tripwire Requirement
STOVL USMC Meets/Exceeds Tripwire Requirement

Logistics Footprint- Volume
CV Exceeds ORD Objective

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*

STOVL USMC Exceeds ORD Objective
STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprint-Weight
CV Exceeds ORD Objective
STOVL USMC Exceeds ORD Objective
STOVL UK Meets/Exceeds Tripwire Requirement

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Lockheed Martin - SDD	C/CPAF	Lockheed Martin:Ft. Worth, TX	27,393.270	2,025.446	Nov 2011	1,795.102	Oct 2012	761.153	Dec 2013	-		761.153	2,093.817	34,068.788	27,535.632
Lockheed Martin - IDIQ D0022	SS/IDIQ	Lockheed Martin:Ft. Worth, TX	11.572	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	11.572	
Lockheed Martin - IDIQ D0009	SS/IDIQ	Lockheed Martin:Ft. Worth, TX	16.759	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	16.759	
Lockheed Martin - BOA	SS/BOA	Lockheed Martin:Ft. Worth, TX	3.511	0.000		0.000		0.000		-		0.000	0.000	3.511	
Pratt and Whitney - SDD	C/CPAF	Pratt and Whitney:Hartford, CT	6,906.621	277.559	Oct 2011	359.618	Oct 2012	399.749	Dec 2013	-		399.749	274.288	8,217.835	6,810.646
Pratt and Whitney - Close Out Contract C0132	C/CPFF	Pratt and Whitney:Hartford, CT	1.364	0.000		0.000		0.000		-		0.000	0.000	1.364	
Pratt and Whitney - Close Out Contract C0050	SS/CPFF	Pratt and Whitney:Hartford, CT	2.211	0.000		0.000		0.000		-		0.000	0.000	2.211	
Pratt and Whitney - BOA	SS/BOA	Pratt & Whitney:Hartford, CT	35.983	0.000		0.000		0.000		-		0.000	0.000	35.983	
Pratt and Whitney - IDIQ	SS/IDIQ	Pratt and Whitney:Hartford, CT	10.925	0.000		0.000		0.000		-		0.000	0.000	10.925	
General Electric - SDD	SS/CPAF	FET:Cincinnati, OH	2,155.573	5.000	Sep 2012	0.000		0.000		-		0.000	0.000	2,160.573	2,415.492
General Electric - IDIQ D0009	SS/IDIQ	FET:Cincinnati, OH	0.264	0.000		0.000		0.000		-		0.000	0.000	0.264	
General Electric - IDIQ D0074	SS/IDIQ	FET:Cincinnati, OH	4.175	0.000		0.000		0.000		-		0.000	0.000	4.175	
General Electric - F136 Transition	SS/CPFF	FET:Cincinnati, OH	100.400	0.000		0.000		0.000		-		0.000	0.000	100.400	
General Electric - BOA	SS/BOA	FET:Cincinnati, OH	5.548	0.000		0.000		0.000		-		0.000	0.000	5.548	
General Electric - Phase IIIb	SS/CPAF	FET:Cincinnati, OH	382.753	0.000		0.000		0.000		-		0.000	0.000	382.753	
Systems Engineering	Various	Various:Various	289.956	44.121	Oct 2012	20.063	Nov 2012	32.188	Nov 2013	-		32.188	99.915	486.243	
		Subtotal	37,320.885	2,352.126		2,174.783		1,193.090		0.000		1,193.090	2,468.020	45,508.904	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AFFTC/Eglin	Various	Eglin AFB:Eglin, FL	102.435	14.298	Oct 2011	15.340	Oct 2012	5.416	Nov 2013	-		5.416	8.672	146.161	
ASC/AFRL	Various	ASC/AFRL:Dayton, OH	55.685	8.762	Oct 2011	8.255	Oct 2012	2.525	Nov 2013	-		2.525	5.475	80.702	
Bolling AFB	Various	Bolling AFB:Washington, DC	6.775	0.000		0.000		0.000		-		0.000	0.000	6.775	
DMEA	Various	DMEA:McClellan, CA	5.630	0.000	Oct 2011	1.400	Nov 2012	0.000	Nov 2013	-		0.000	0.000	7.030	
ESC	Various	ESC:Hanscom AFB, MA	7.103	0.000	Oct 2011	0.511	Nov 2012	0.000	Nov 2013	-		0.000	0.000	7.614	
AEDC/Fuel	Various	AEDC/Fuel:Arnold, TN	143.754	0.000	Oct 2011	23.266	Nov 2012	0.000	Nov 2013	-		0.000	0.000	167.020	
NADEP Jacksonville	Various	NADEP:Jacksonville, FL	7.880	0.000	Oct 2011	1.757	Oct 2012	0.000	Nov 2013	-		0.000	0.000	9.637	
Miscellaneous	Various	Various:Various	226.696	51.771	Oct 2011	21.332	Nov 2012	37.488	Nov 2013	-		37.488	80.491	417.778	
NAWC China Lake	Various	NAWC WD:China Lake, CA	96.177	21.418	Oct 2011	24.833	Nov 2012	20.710	Nov 2013	-		20.710	51.927	215.065	
NAWC Patuxent River	Various	NAWC AD:Patuxent, MD	299.158	41.115	Oct 2011	42.672	Nov 2012	29.621	Nov 2013	-		29.621	100.346	512.912	
NAWC TSD	Various	NAWC TSD:Orlando, FL	9.680	0.000	Oct 2011	0.771	Nov 2012	0.000	Nov 2013	-		0.000	0.000	10.451	
NSWC	Various	Various:Indian Head, MD	3.813	0.000	Oct 2011	0.308	Nov 2012	0.000	Nov 2013	-		0.000	0.000	4.121	
SPAWAR	Various	Various:San Diego, CA	8.434	0.000	Oct 2011	0.032	Nov 2012	0.000	Nov 2013	-		0.000	0.000	8.466	
DFAS	Various	Various:Various	0.000	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	0.000	
SBIR Technology Insertion Congressional Add	Various	Various:Various	24.187	0.000		0.000		0.000		-		0.000	0.000	24.187	
		Subtotal	997.407	137.364		140.477		95.760		0.000		95.760	246.911	1,617.919	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NAWC China Lake	Various	NAWC WD:China Lake, CA	26.630	7.581	Oct 2011	5.829	Nov 2012	3.820	Nov 2013	-		3.820	9.249	53.109	
NAWC Patuxent River	Various	NAWC AD:Patuxent River, MD	301.964	74.780	Oct 2011	115.186	Nov 2012	153.350	Nov 2013	-		153.350	318.568	963.848	
Edwards AFB	Various	Edwards AFB:Edwards AFB, CA	340.541	23.905	Oct 2011	82.500	Nov 2012	130.000	Nov 2013	-		130.000	263.000	839.946	
Other (including Classified PIDs)	Various	Various:Various	26.080	30.757	Oct 2011	56.449	Nov 2012	61.803	Nov 2013	-		61.803	137.987	313.076	
WEPS/Eglin	Various	WEPS/Eglin:Various	27.829	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	27.829	
JTIC	Various	Various:Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
OT-AFOTEC/AFFC	Various	OT-AFOTEC/ AFFTC:Kirkland AFB, NM/Eglin AFB, FL	93.604	15.383	Oct 2011	108.518	Nov 2012	32.740	Nov 2013	-		32.740	344.578	594.823	
OT-JITC/OPTEV	Various	OT-JITC/ OPTEC:Various	6.211	0.000	Oct 2011	5.776	Oct 2012	0.000	Nov 2013	-		0.000	0.100	12.087	
		Subtotal	822.859	152.406		374.258		381.713		0.000		381.713	1,073.482	2,804.718	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Business Integration - Cost ACT I	SS/CPFF	ACT I:Arlington, VA	5.700	2.903	Oct 2011	3.049	Dec 2012	3.248	Dec 2013	-		3.248	1.681	16.581	
Security Mantech	C/FP	Mantech:Arlington, VA	50.978	10.500	Oct 2011	11.046	Dec 2012	11.600	Dec 2013	-		11.600	12.484	96.608	
Business Integration - Acq PA Cons	Various	Various:Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
Autolog - SEIT DRC	C/CPFF	DRC:Arlington, VA	5.916	0.000		0.000		0.000		-		0.000	0.000	5.916	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Chief Engineer - First Principles	C/CPFF	First Principles:Arlington, VA	3.016	1.988	Oct 2011	1.836	Nov 2012	1.928	Dec 2013	-		1.928	3.190	11.958	
ASC Civilian Pay	Various	ASC CIVPAY:Wright Patterson, AFB, OH	0.000	14.564	Oct 2011	35.724	Oct 2012	18.586	Oct 2013	-		18.586	76.779	145.653	
Operations Wyle	C/CPFF	Wyle:Arlington, VA	90.871	20.774	Oct 2011	23.305	Dec 2012	24.884	Dec 2013	-		24.884	27.429	187.263	
Operations SAFTAS	C/CPAF	Saftas:Arlington, VA	101.734	20.529	Oct 2011	12.867	Dec 2012	17.350	Dec 2013	-		17.350	33.778	186.258	
Operations Stanley	C/CPAF	Stanley:Arlington, VA	159.020	22.350	Oct 2011	22.051	Oct 2012	24.604	Dec 2013	-		24.604	35.090	263.115	
GE F136 Congressional Studies	Various	Various:Various	0.800	0.000		0.000		0.000		-		0.000	0.000	0.800	
Travel and Misc	Various	Various:Various	14.499	0.000	Oct 2011	3.997	Oct 2012	4.559	Nov 2013	-		4.559	17.652	40.707	
		Subtotal	432.534	93.608		113.875		106.759		0.000		106.759	208.083	954.859	

Remarks

Cumulative Award Fee earned in prior years for Stanley is 99%.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Subtotals	39,573.685	2,735.504		2,803.393		1,777.322		0.000		1,777.322	3,996.496	50,886.400	
RDT&E, AF/ 0604800F	-	1,366.147		1,192.506		782.335		-		782.335	-	-	-
International Partner (SDD)	-	145.664		149.346		4.411		-		4.411	-	-	-
RDT&E,N (Navy)/0604800N/2261	-	605.998		724.392		507.753		-		507.753	-	-	-
Project Cost Totals	39,573.685	617.695		737.149		482.823		0.000		482.823	3,996.496	50,886.400	

Remarks

NOTE 1: Prior Years reflect $17,449.086M USAF/$16,874.804M USN/$602.142 USMC /$4,647.653M International/Total $39,573.685M

FY 2012 reflects $1,366.147 USAF/$605.998M USN/$617.695M USMC/$145.664M International/Total $2,735.504M

FY 2013 reflects $1,192.506M USAF/$724.392M USN/$737.149M USMC/$149.346M International/Total $2,803.393M

FY 2014 reflects $782.335M USAF/$507.753M USN/$482.823M USMC/$4.411M International/Total $1,777.322M

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

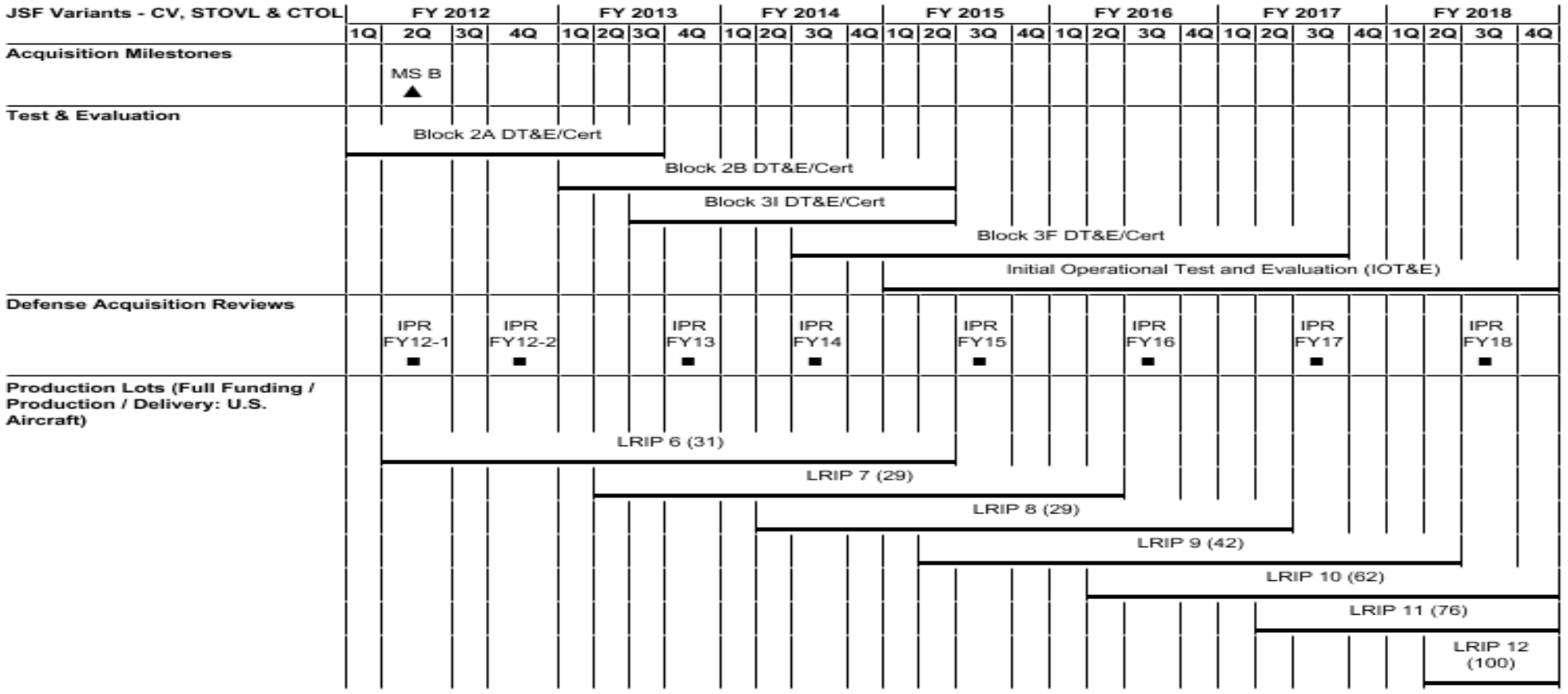
NOTE 2:R-2A/R-3 displays total combined service(i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements(D&S).

JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

D&S Includes:
USAF PE 0604800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
UASF PE 0207142F BPAC 675346
USN FY13 PE 0604800N Project Unit 2261
USN FY14 PE 0604800N Project Unit 3353
USMC FY13 PE 0604800M Project Unit 2262
USMC FY14 PE 0604800M Project Unit 3351

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*



2014PB - 0604800M - 2262

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	**PROJECT** 2262: *Joint Strike Fighter EMD STOVL*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
JSF Variants - CV, STOVL & CTOL				
Acquisition Milestones: Milestone B	2	2012	2	2012
Test & Evaluation: Test and Evaluation: Block 2A DT&E/Cert	1	2012	3	2013
Test & Evaluation: Test and Evaluation: Block 2B DT&E/Cert	1	2013	2	2015
Test & Evaluation: Test and Evaluation: Block 3I DT&E/Cert	3	2013	2	2015
Test & Evaluation: Test and Evaluation: Block 3F DT&E/Cert	3	2014	3	2017
Test & Evaluation: Test and Evaluation: Initial Operational Test and Evaluation (IOT&E)	1	2015	4	2018
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-12-1	2	2012	2	2012
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-12-2	4	2012	4	2012
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-13	4	2013	4	2013
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-14	3	2014	3	2014
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-15	3	2015	3	2015
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-16	3	2016	3	2016
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-17	3	2017	3	2017
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-18	3	2018	3	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 2262: *Joint Strike Fighter EMD STOVL*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 6 Full Funding / Production / Delivery	2	2012	2	2015
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 7 Full Funding / Production / Delivery	2	2013	2	2016
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 8 Full Funding / Production / Delivery	2	2014	2	2017
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 9 Full Funding / Production / Delivery	2	2015	2	2018
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 10 Full Funding / Production / Delivery	2	2016	4	2018
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 11 Full Funding / Production / Delivery	2	2017	4	2018
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 12 Full Funding / Production / Delivery	2	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3350: *F-35B Sustainment/Capability Enhancements*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3350: *F-35B Sustainment/ Capability Enhancements*	0.000	0.000	0.000	14.904	-	14.904	14.976	14.960	0.000	0.000	0.000	44.840
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

NOTE: * This Navy Project Unit (3350) is a New Start in Fiscal Year 2014.

R-2A cost shown above reflect service funding only.

R-2A (section B)/R-3 displays total combined service (i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements (D&S).

JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

D&S Includes:
USAF PE 0604800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
UASF PE 0207142F BPAC 675346
USN FY13 PE 0604800N Project Unit 2261
USN FY14 PE 0604800N Project Unit 3353
USMC FY13 PE 0604800M Project Unit 2262
USMC FY14 PE 0604800M Project Unit 3351

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	**PROJECT** 3350: *F-35B Sustainment/Capability Enhancements*

A. Mission Description and Budget Item Justification

Funds enhancements to the deployability and suitability of the air system such as low observable (LO) maintenance enhancements, security architecture updates, and integrated training simulators. These enhancements will provide vital on-demand support to the war-fighter within a deployed environment and are not funded via the existing System Development and Demonstration (SDD) program or tied to Block 4 Operational Fight Program (OFP) development. Funding will result in achieving targeted suitability, maintainability, and affordability returns employing the F-35 in deployed or austere locations.

-Funding at the accomplishment/planned program level is reported as the total of all services as these activities support all aircraft variants. The annual funding contribution between the USN and USMC is approximately equal.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Sustainment and Capability Enhancements	0.000	17.800	56.867
Articles:		0	0
Description: Develop and acquire enhancements to the suitability and maintainability of the air system such as LO maintenance enhancements, security architecture updates, and integrated training simulators. ***FY 2013 Plans:*** Initiate disciplined systems engineering, requirements decomposition, technical maturation and development of suitability and deployability enhancements. ***FY 2014 Plans:*** Conduct systems engineering, technical maturation, integration and test planning for suitability and deployability enhancements.			
Title: Development Support	0.000	0.000	6.390
Articles:			0
Description: Initiate SDD support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities. ***FY 2014 Plans:*** Initiate development enhancement support to Deployable Autonomic Logistics Information Systems, decentralized maintenance capabilities low observable maintenance enhancements, security architecture updates, and integrated training simulators.			
Title: Development Test and Evaluation	0.000	0.000	0.639
Articles:			0
Description: Verification and testing for deployability and suitability enhancements ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	**PROJECT** 3350: *F-35B Sustainment/Capability Enhancements*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Initiate government test and evaluation of capability enhancements for Deployable Autonomic Logistics Information system, and LO maintenance enhancements.			
Accomplishments/Planned Programs Subtotals	0.000	17.800	63.896
RDT&E,N (Navy) 0604800N/3352	0.000	0.000	14.992
RDT&E,AF 0604800F/653832	0.000	17.800	34.000
Navy Subtotals	0.000	0.000	14.904

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E/0604800F: *Joint Strike Fighter*	1,366.147	1,192.506	782.335		782.335	621.432	486.094	175.591	77.992	0.000	22,151.183
• International: *International Partner (SDD/FOD)*	145.664	149.346	4.411		4.411	0.000	0.000	0.000	0.000	0.000	4,947.074
• APAF/0207142F: *F-35 Joint Strike Strike Fighter*	3,289.615	3,124.302	3,060.770		3,060.770	3,921.250	5,188.155	5,250.891	5,850.477	150,878.750	189,907.778
• RDT&E/0604800N/2261: *JT Strike Fighter (JSF) - EMD*	605.998	724.392	507.753		507.753	570.181	450.625	254.021	23.023	0.000	20,010.797
• APN/0605B: *F-35 Joint Strike Fighter STOVL Spares*	23.430	99.006	41.707		41.707	131.216	94.193	66.423	127.264	0.000	583.239
• APN/0147C: *F-35 Joint Strike Fighter CV*	109.066	65.180	94.766		94.766	132.063	185.904	246.779	190.141	3,364.677	5,219.579
• APN/0605C: *F-35 Joint Strike Fighter CV Spares*	29.902	41.466	42.060		42.060	17.310	32.270	121.283	63.995	0.000	348.286
• OPN/4265: *Aviation Support Equipment*	5.665	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.665
• International 2: *International Procurement*	1,808.640	3,453.903	5,738.517		5,738.517	7,563.725	8,328.889	8,153.307	7,347.293	0.000	43,848.672
• MC/0207142F: *USAF MILCON*	24.250	13.530	41.900		41.900	72.100	65.000	66.170	11.000	1,554.200	2,358.300
• APAF/0204142F: *USAF Modification Funding*	0.000	147.995	157.777		157.777	245.462	223.683	252.141	256.680	0.000	1,288.348

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3350: *F-35B Sustainment/Capability Enhancements*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• FOD/0207142F: *USAF Follow-on Development*	0.000	8.117	23.000		23.000	104.866	132.174	229.912	300.050	0.000	798.119
• 0207142F/USAF: *USAF Spares*	149.556	181.833	103.582		103.582	235.183	271.211	235.251	342.508	0.000	1,971.440
• OPN/4267: *Autonomic Logistics Information System (ALIS)*	0.000	3.826	4.827		4.827	4.554	4.604	5.729	5.830	43.558	72.928
• USAF/OPAF PE 27142F: *OPAF*	0.000	0.600	2.200		2.200	2.943	2.471	2.345	2.387	0.000	12.946
• APN/0592: *F-35 STOVL Series*	0.000	0.000	147.130		147.130	291.910	284.360	176.610	181.234	0.000	1,081.244
• APN/0593: *F-35 CV Series*	0.000	0.000	31.100		31.100	52.900	62.130	98.980	102.456	0.000	347.566
• RDT&E/0604800N/3352: *F-35C Sustainment/Capability Enhancements*	0.000	0.000	14.992		14.992	14.997	14.991	0.000	0.000	0.000	44.980
• RDT&E/0604800N/3353: *F-35C Follow-on Development*	0.000	0.000	11.442		11.442	19.996	60.963	115.057	173.276	0.000	380.734
• USAF SDD BP 653832: *Deployability and Suitability Enhancements*	0.000	17.800	34.000		34.000	33.000	30.000	0.000	0.000	0.000	114.800
• PAF/0207142F: *JSF CTOL Advance Procurement*	228.977	293.400	363.783		363.783	482.795	509.828	578.000	588.404	18,585.140	22,633.855
• DCA/0207142F : *Dual Capable Aircraft (DCA)*	9.682	0.000	10.000		10.000	0.000	0.000	0.000	0.000	0.000	19.682
• APN/0147: *F-35 Joint Strike Fighter CV*	1,447.097	1,007.632	1,135.444		1,135.444	1,082.046	1,468.775	2,054.690	2,532.068	26,737.969	45,618.677
• APN PE BP0152C: *Advance Procurement (STOVL) BP0152C*	117.229	106.199	103.195		103.195	143.887	203.057	226.014	136.732	4,095.291	5,755.765
• APN PE BP0152: *Advance Procurement (STOVL) BP0152*	1,141.906	1,404.737	1,267.260		1,267.260	1,209.937	1,461.056	2,125.324	2,814.618	29,224.711	41,203.070
• USN MILCON: *USN JSF MILCON*	144.400	117.600	209.000		209.000	320.500	151.700	48.100	0.000	830.600	2,259.300
• USN RDT&E USRL: *USN USRL*	26.044	19.534	0.000		0.000	0.000	0.000	0.000	0.000	0.000	149.262

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3350: *F-35B Sustainment/Capability Enhancements*

D. Acquisition Strategy

Implement JSF Joint Executive Steering Board/Configuration Steering Board approved enhancements to existing capabilities through existing contracts using the engineering change proposal process. When appropriate, new cost type contracts may be established.

E. Performance Metrics

The following are the key performance parameters from the F-35 Selected Acquisition Report dated 31 December 2011:

Performance Metrics reflect Key Program Performance data.

Combat Radius
Conventional Take Off and Landing Does Not Meet Requirement
Carrier Variant (CV) Meets Tripwire Requirement
Short Take Off Vertical Landing (STOVL) Meets/Exceeds Tripwire Requirement

CV Recovery
Maximum Approach Speed Meets Requirement In Tripwire Band

STOVL Performance
Flat Deck (High-High-High Profile Fuel) Meets Requirement In Tripwire Band
Ski Jump (High-Medium-Medium-High Profile Fuel) Meets Requirement In Tripwire Band
Vertical Landing Bring Back Meets Requirement In Tripwire Band

Interoperability
Net Ready Criteria- Meets Requirement In Tripwire Band

Radio Frequency Signature Meets/Exceeds Tripwire Requirement

Force Protection
CB Pilot Protection (New Key Performance Parameters Per CN3) - Meets/Exceeds Tripwire Requirement

Mission Reliability
Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement
CV Exceeds ORD Objective
Short Take Off Vertical Landing (STOVL) USMC Meets/Exceeds Tripwire Requirement
STOVL UK Meets/Exceeds Tripwire Requirement

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3350: *F-35B Sustainment/Capability Enhancements*

Sortie Generation Rate
Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement
Carrier Variant (CV) Meets/Exceeds Tripwire Requirement
STOVL USMC Meets/Exceeds Tripwire Requirement
STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprints
CTOL Meets/Exceeds Tripwire Requirement
STOVL USMC Meets/Exceeds Tripwire Requirement

Logistics Footprint- Volume
CV Exceeds ORD Objective
STOVL USMC Exceeds ORD Objective
STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprint-Weight
CV Exceeds ORD Objective
STOVL USMC Exceeds ORD Objective
STOVL UK Meets/Exceeds Tripwire Requirement

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3350: *F-35B Sustainment/Capability Enhancements*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prime LM Deployability Suitability	SS/CPAF	Lockheed Martin:Ft. Worth, TX	0.000	0.000		17.800	Jul 2013	56.867	Dec 2013	-		56.867	109.461	184.128	184.234
		Subtotal	0.000	0.000		17.800		56.867		0.000		56.867	109.461	184.128	184.234

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	TBD	Various:Various	0.000	0.000		0.000		6.390	Dec 2013	-		6.390	12.299	18.689	18.700
		Subtotal	0.000	0.000		0.000		6.390		0.000		6.390	12.299	18.689	18.700

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	Various:Various	0.000	0.000		0.000		0.639	Dec 2013	-		0.639	1.230	1.869	
		Subtotal	0.000	0.000		0.000		0.639		0.000		0.639	1.230	1.869	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Subtotals	0.000	0.000		17.800		63.896		0.000		63.896	122.990	204.686	
RDT&E,N (Navy) 0604800N/3352	-	0.000		0.000		14.992		-		14.992	-	-	-
RDT&E,AF 0604800F/653832	-	0.000		17.800		34.000		-		34.000	-	-	-
Project Cost Totals	0.000	0.000		0.000		14.904		0.000		14.904	122.990	204.686	

Remarks

NOTE:

R-2A cost shown above reflect service funding only.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3350: *F-35B Sustainment/Capability Enhancements*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

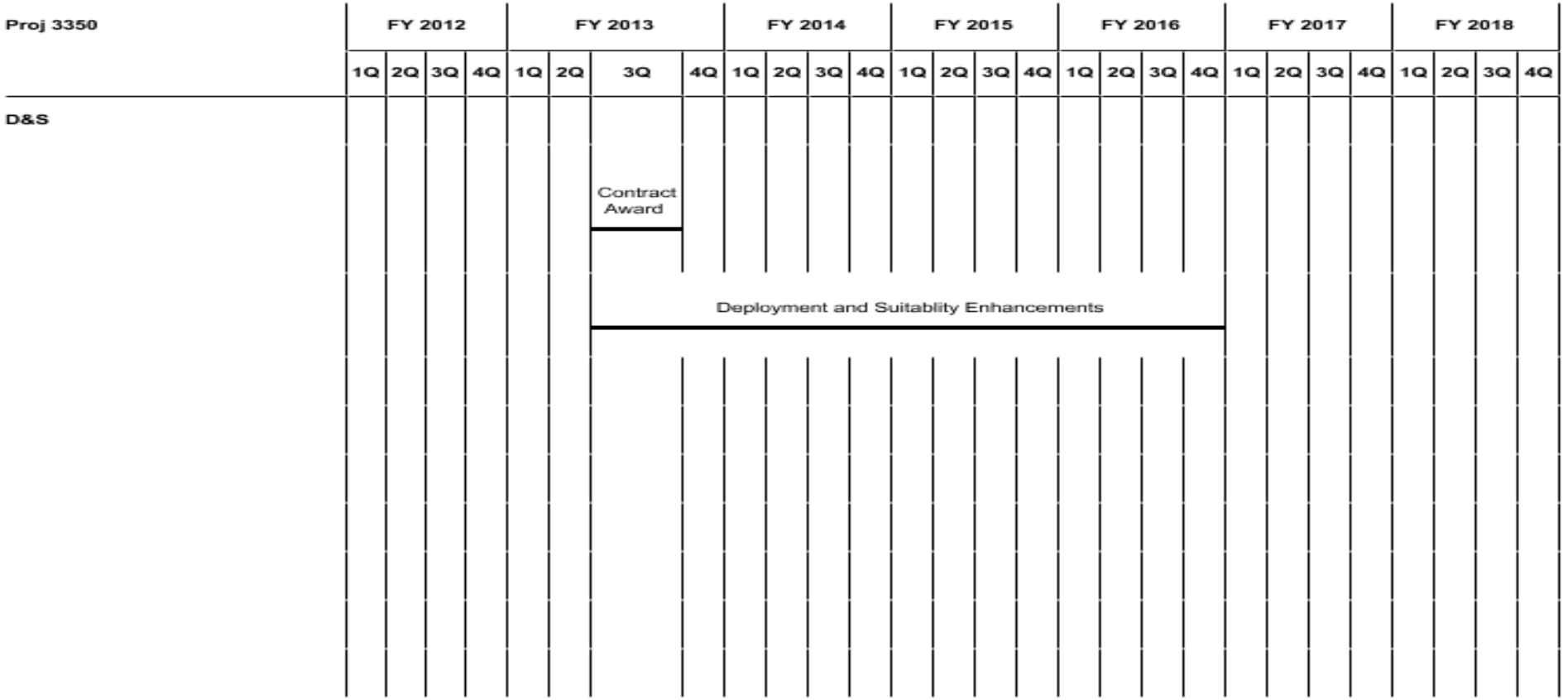
R-2A (section B)/R-3 displays total combined service(i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements(D&S).

JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

D&S Includes:
USAF PE 0604800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
USAF PE 0207142F BPAC 675346
USN PE 0608400N Project Unit 3353
USMC PE 0608400M Project Unit 3351

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3350: *F-35B Sustainment/Capability Enhancements*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3350: *F-35B Sustainment/Capability Enhancements*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3350				
D&S: D&S Contract Award	3	2013	3	2013
D&S: D&S Deployment and Suitablity Enhancements	3	2013	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3351: *F-35B Follow-on Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3351: *F-35B Follow-on Development*	0.000	0.000	0.000	14.904	-	14.904	19.968	60.837	114.965	172.906	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

NOTE: * This Navy Project Unit (3351) is a New Start in Fiscal Year 2014.

R-2A cost shown above reflects service funding only.

R-2A (sction B)/R-3 displays combined service funding for JSF Follow-on Development.

JSF FoD Includes:
USAF PE 0207142F BPAC 675346
FY13: USN PE 0604800N Project Unit 2261
FY14: USN PE 0604800N Project Unit 3353
FY13: USMC PE 0604800M Project Unit 2262
FY14: USMC PE 0604800M Project Unit 3351

JSF FoD Includes:
USAF PE 0207142F BPAC 675346
USN PE 0608400N Project Unit 3353
USMC PE 0608400M Project Unit 3351

JSF Dual Capability Aircraft (DCA) Includes:
USAF PE 0207142F BPAC 676011

A. Mission Description and Budget Item Justification

F-35 Follow-on Development (FoD) provides continuing incremental upgrades of the three F-35 variants and associated ground equipment. The FoD acquisition strategy is based upon incremental development of capabilities with each increment consisting of two development cycles. FoD capability planning includes an efficient transition from F-35 SDD to Follow-on Development. As SDD development activities ramp down through FY17, the FoD program will assume responsibility for new

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3351: *F-35B Follow-on Development*

development and the maintenance of associated developmental infrastructure. FoD capability planning currently includes Milestone B in late FY15 to enable Block 4 Engineering and Manufacturing Development efforts from FY16 through FY18, followed by DT and OT testing in 2020 with delivery of capabilities in early 2021. A Materiel Development Decision (MDD) formally approving FoD Material Solution Analysis and Technology Development/Risk Reduction phases for technology acquisition is planned in late FY13.

This program is in Budget Activity 5, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Air Vehicle Follow-on Development (Capability Planning)	9.682	16.834	34.034
Articles:	0	0	0
Description: FY2014 capability planning effort will focus on mission requirements analysis, early engineering, risk reduction and preparations leading to formal acquisition approval of Block 4. Program planning will consist of engineering and development support for defining, managing and acquisition of capability enhancements required to address threats indicated in the Electronic Warfare ICD, the Fifth Generation Fighter Modernization ICD and as further defined in the F-35 Follow-on Development Increment 1 (Block 4) Capability Development Document (CDD) (Note: CDD approval planned in FY-14). ***FY 2012 Accomplishments:*** JSF Dual Capability Aircraft efforts. ***FY 2013 Plans:*** Early capability planning, requirements and alternatives analysis, and US and partner investment planning in accordance with the Production, Sustainment and Follow On Development Memorandum of Agreement. ***FY 2014 Plans:*** Requirements analysis and technical requirements development, systems engineering, and technical planning. A formal Systems Requirements Review is planned in FY14.			
Title: Developmental Test & Evaluation	0.000	0.000	17.100
Articles:			0
Description: Initiate Laboratory and Test Aircraft Upgrade and other test planning activities required for Block 4 and later development , integration, test and evaluation. Changes are needed to support development and evaluation of improvements driven by changes in threat and as identified in the Electronic Warfare ICD and the Fith Generation Fighter Modernization ICD. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3351: *F-35B Follow-on Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Near term funding will support infrastructure upgrades required for development of enhanced capabilities. This includes replacement of engines and other life limited components on DT aircraft that will be at end of life upon completion of SDD, as well as laboratory upgrades to support development and verification of capabilities to address advanced threats.			
Title: Development Support ***Articles:*** ***Description:*** Technical and Analytical Support ***FY 2014 Plans:*** Initiate development support for defining, managing and acquiring the envisioned F-35C capability enhancements identified in approved requirements documents.	0.000	0.000	4.582 0
Title: Management Services ***Articles:*** ***Description:*** Includes management support services, travel, engineering technical services, studies analyses and evaluations in support of FoD objectives. ***FY 2014 Plans:*** Acquisition and program planning, documentation development to include all regulatory and statutory requirements required in preparation for Milestone B approval in late FY2015 or early FY16 to begin FoD Increment 1 - Block 4 E&MD	0.000	0.000	3.630 0
Accomplishments/Planned Programs Subtotals	9.682	16.834	59.346
RDT&E,N (Navy) 0604800N/3353	0.000	0.000	11.442
RDT&E,AF 0207142F/675346	0.000	8.117	23.000
RDT&E,AF 0207142F/676011	9.682	0.000	10.000
RDT&E,N (USMC) 0604800M/2262	-	4.358	-
RDT&E,N (USN) 0604800N/2261	-	4.359	-
Navy Subtotals	0.000	-0.000	14.904

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3351: *F-35B Follow-on Development*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E/0604800F: *Joint Strike Fighter SDD*	1,366.147	1,192.506	782.335		782.335	621.432	486.094	175.591	77.992	0.000	22,151.183
• International: *International Partner (SDD/FOD)*	145.664	149.346	4.411		4.411	0.000	0.000	0.000	0.000	0.000	4,947.074
• APAF/0207142F: *F-35 Joint Strike Strike Fighter*	3,289.615	3,124.302	3,060.770		3,060.770	3,921.250	5,188.155	5,250.891	5,850.477	150,878.750	189,907.778
• RDT&E/0604800M/2261: *F-35 Joint Strike Strike Fighter*	605.998	724.392	507.753		507.753	570.181	450.625	254.021	23.023	0.000	20,010.797
• APN/0605B: *F-35 Joint Strike Fighter STOVL Spares*	23.430	99.006	41.707		41.707	131.216	94.193	66.423	127.264	0.000	583.239
• APN/0147C: *F-35 Joint Strike Fighter CV AP*	109.066	65.180	94.766		94.766	132.063	185.904	246.779	190.141	3,364.677	5,219.579
• APN/0605C: *F-35 Joint Strike Fighter CV Spares*	29.902	41.466	42.060		42.060	17.310	32.270	121.283	63.995	0.000	348.286
• OPN/4265: *Other Aviation Support Equipment*	5.665	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.665
• International 2: *International Procurement*	1,808.640	3,453.903	5,738.517		5,738.517	7,563.725	8,328.889	8,153.307	7,347.293	0.000	43,848.672
• MC/0207142F: *USAF MILCON*	24.250	13.530	41.900		41.900	72.100	65.000	66.170	11.000	1,554.200	2,358.300
• APAF/0204142F: *USAF Modification Funding*	0.000	147.995	157.777		157.777	245.462	223.683	252.141	256.680	0.000	1,288.348
• FOD/0207142F 675346: *USAF Follow-on Development*	0.000	8.117	23.000		23.000	104.866	132.174	229.912	300.050	0.000	798.119
• 0207142F/USAF: *USAF Spares*	149.556	181.833	103.582		103.582	235.183	271.211	235.251	342.508	0.000	1,971.440
• OPN/4267: *Logistics Information System (ALIS)*	0.000	3.826	4.827		4.827	4.554	4.604	5.729	5.830	43.558	72.928
• USAF/OPAF PE 27142F: *OPAF*	0.000	0.600	2.200		2.200	2.943	2.471	2.345	2.387	0.000	12.946
• APN/0592: *F-35 STOVL Series*	0.000	0.000	147.130		147.130	291.910	284.360	176.610	181.234	0.000	1,081.244
• APN/0593: *F-35 CV Series*	0.000	0.000	31.100		31.100	52.900	62.130	98.980	102.456	0.000	347.566
• RDT&E/0604800M/3352: *F-35B Sustainment/Capability Enhancements*	0.000	0.000	14.992		14.992	14.997	14.991	0.000	0.000	0.000	44.980

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3351: *F-35B Follow-on Development*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E/0604800M/3353: *F-35B Follow-on Development*	0.000	0.000	11.442		11.442	19.996	60.963	115.057	173.276	0.000	380.734
• USAF SDD BP 653832: *Deployability and Suitability Enhancements*	0.000	17.800	34.000		34.000	33.000	30.000	0.000	0.000	0.000	114.800
• PAF/0207142F: *JSF CTOL Advance Procurement*	228.977	293.400	363.783		363.783	482.795	509.828	578.000	588.404	18,585.140	22,633.855
• DCA/0207142F 676011: *Dual Capable Aircraft (DCA)*	9.682	0.000	10.000		10.000	0.000	0.000	0.000	0.000	0.000	19.682
• APN/0147: *F-35 Joint Strike Fighter CV*	1,447.097	1,007.632	1,135.444		1,135.444	1,082.046	1,468.775	2,054.690	2,532.068	26,737.969	45,618.677
• APN PE BP0152C: *Advance Procurement (STOVL) BP0152C*	117.229	106.199	103.195		103.195	143.887	203.057	226.014	136.732	4,095.291	5,755.765
• APN PE BP0152: *Advance Procurement (STOVL) BP0152*	1,141.906	1,404.737	1,267.260		1,267.260	1,209.937	1,461.056	2,125.324	2,814.618	29,224.711	41,203.070
• USN MILCON: *USN JSF MILCON*	144.400	117.600	209.000		209.000	320.500	151.700	48.100	0.000	830.600	2,259.300
• USN RDT&E USRL: *USN USRL*	26.044	19.534	0.000		0.000	0.000	0.000	0.000	0.000	0.000	149.262

Remarks

D. Acquisition Strategy

To enable the ability to adjust to potential discrepancies discovered during SDD Block 3 Test and Evaluation, the engineering and development planning support for Follow-on Development will be procured under a cost type contract. A fee provision will be used to target and motivate contractor performance. A separate Basic Ordering Agreement or Indefinite Quantity/Indefinite Delivery contract is planned to provide a long term approach to upgrading and maintaining laboratories and test aircraft. Both Development Support and Management Services will primarily use CPFF Delivery Orders.

E. Performance Metrics

Overall Follow-on Development Performance Metrics will reflect Key Program Performance data established in the F-35 Follow-on Development Increment 1 Capability Development Document (CDD) (Planned for completion and approval in 2014.)

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3351: *F-35B Follow-on Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Requirements Analysis, Systems Engineering and Risk Reduction	SS/CPFF	Lockheed Martin:Ft. Worth, TX	0.000	0.000		16.834	Aug 2013	24.034	Mar 2014	-		24.034	0.000	40.868	
Lockheed Martin - DCA Integration	SS/CPFF	Lockheed Martin:Ft. Worth, TX	0.000	9.682	Mar 2013	0.000		10.000	Mar 2014	-		10.000	0.000	19.682	
		Subtotal	0.000	9.682		16.834		34.034		0.000		34.034	0.000	60.550	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical and Analytic Support	SS/T&M	Lockheed Martin:Ft. Worth, TX	0.000	0.000		0.000		4.582	Mar 2014	-		4.582	0.000	4.582	
		Subtotal	0.000	0.000		0.000		4.582		0.000		4.582	0.000	4.582	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Laboratory and Test Aircraft Infrastructure	TBD	Lockheed Martin:Ft. Worth, TX	0.000	0.000		0.000		17.100	Jan 2014	-		17.100	0.000	17.100	
		Subtotal	0.000	0.000		0.000		17.100		0.000		17.100	0.000	17.100	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support and Milestone Preparations	Various	Not Specified:Not Specified	0.000	0.000		0.000		3.630	Nov 2013	-		3.630	0.000	3.630	
		Subtotal	0.000	0.000		0.000		3.630		0.000		3.630	0.000	3.630	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3351: *F-35B Follow-on Development*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Subtotals	0.000	9.682		16.834		59.346		0.000		59.346	0.000	85.862	
RDT&E,N (Navy) 0604800N/3353	-	0.000		0.000		11.442		-		11.442	-	-	-
RDT&E,AF 0207142F/675346	-	0.000		8.117		23.000		-		23.000	-	-	-
RDT&E,AF 0207142F/676011	-	9.682		0.000		10.000		-		10.000	-	-	-
RDT&E,N (USMC) 0604800M/2262	-	-		4.358		-		-		-	-	-	-
RDT&E,N (USN) 0604800N/2261	-	-		4.359		-		-		-	-	-	-
Project Cost Totals	0.000	0.000		-0.000		14.904		0.000		14.904	0.000	85.862	

Remarks

NOTE:

R-2A cost shown above reflect service funding only.

R-2A (section B)/R-3 displays total combined service(i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements(D&S).

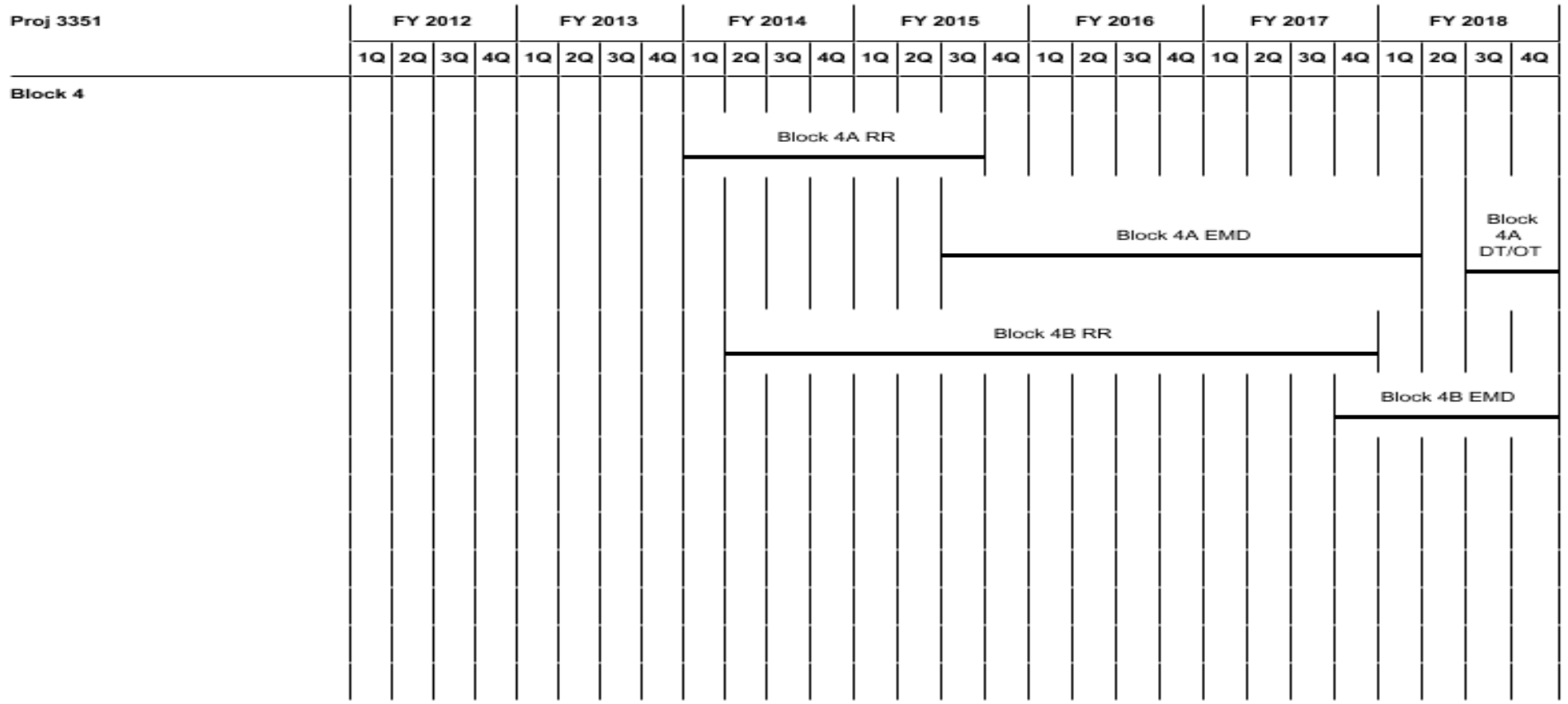
JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

D&S Includes:
USAF PE 0604800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
USAF PE 0207142F BPAC 675346
USN PE 0608400N Project Unit 3353
USMC PE 0608400M Project Unit 3351

JSF Dual Capability Aircraft (DCA) Includes:
USAF PE 0207142F BPAC 676011

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	PROJECT 3351: *F-35B Follow-on Development*



2014PB - 0604800M - 3351

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800M: *(U)Joint Strike Fighter (JSF) - EMD*	**PROJECT** 3351: *F-35B Follow-on Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3351				
Block 4: Block 4A Risk Reduction	1	2014	3	2015
Block 4: Block 4A Engineering and Manufacturing Development	3	2015	1	2018
Block 4: Block 4A DT/OT	3	2018	4	2018
Block 4: Block 4B Risk Reduction	2	2014	4	2017
Block 4: Block 4B Risk Engineering and Manufacturing Development	4	2017	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	39,677.369	632.042	743.926	534.187	-	534.187	605.174	526.579	369.078	196.299	Continuing	Continuing
2261: *Joint Strike Fighter EMD*	39,573.685	605.998	724.392	507.753	-	507.753	570.181	450.625	254.021	23.023	Continuing	Continuing
3194: *Joint Reprogramming Center*	103.684	26.044	19.534	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	149.262
3352: *F-35C Sustainment/ Capability Enhancements*	0.000	0.000	0.000	14.992	-	14.992	14.997	14.991	0.000	0.000	0.000	44.980
3353: *F-35C Follow-on Development*	0.000	0.000	0.000	11.442	-	11.442	19.996	60.963	115.057	173.276	Continuing	Continuing
MDAP/MAIS Code(s): 198												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The F-35 Joint Strike Fighter (JSF) Program will develop and field an affordable, highly common family of next generation strike aircraft for the United States Navy, Air Force, Marine Corps and allies. The three variants are the F-35A Conventional Takeoff and Landing (CTOL); F-35B Short Takeoff and Vertical Landing (STOVL); and the F-35C Aircraft Carrier suitable Variant (CV). The CTOL will be a stealthy multi-role aircraft, primary air-to-ground for the Air Force to replace the F-16 and A-10 and complement the F-22. The STOVL variant will be a multi-role strike fighter aircraft to replace the AV-8B and F/A-18A/C/D for the Marine Corps, replace the Sea Harrier and GR 7 for the United Kingdom, and replace the AV-8 currently employed by the Italian Navy. The CV will provide the DoN a multi-role, stealthy strike fighter aircraft to complement the F/A-18E/F.

The United Kingdom, other International Partner nations, and Foreign Military Sales customers are also participants in the JSF program. The program shown here reflects USN, USMC, USAF, and International Partner funding.

Funding at the accomplishment/planned program level is reported as the total of all services and partners as these activities support all aircraft variants.

The SDD Budget funds a total quantity of 20 RDT&E test articles to include 6 ground test articles and 14 flight test articles for Navy and Air Force use.

FY07: 1 Conventional Take Off and Landing (CTOL) flight test article
FY08: 1 Short Take Off and Vertical Landing (STOVL) flight test article; 1 STOVL ground test article
FY09: 1 STOVL flight test article; 2 CTOL ground test articles
FY10: 6 flight test articles: 3 CTOL, 2 STOVL, 1 Carrier Variant (CV); 3 ground test articles: 1 STOVL, 2 CV

FY11: 4 flight test articles: 1 CTOL, 1 STOVL, 2 CV
FY13: 1 CV flight test article

BA5 - This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting Engineering and Manufacturing Development (EMD) tasks aimed at meeting validated requirements prior to full-rate production.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	658.549	743.926	702.100	-	702.100
Current President's Budget	632.042	743.926	534.187	-	534.187
Total Adjustments	-26.507	0.000	-167.913	-	-167.913
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-10.000	0.000			
• SBIR/STTR Transfer	-16.507	0.000			
• Program Adjustments	0.000	0.000	-75.256	-	-75.256
• Rate/Misc Adjustments	0.000	0.000	-92.657	-	-92.657

Change Summary Explanation

The SDD funding profile has been rephased (FY14-17) to better align resources to requirements.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2261: *Joint Strike Fighter EMD*	39,573.685	605.998	724.392	507.753	-	507.753	570.181	450.625	254.021	23.023	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Total cost including USN, USMC, International partner contributions and USAF funding are: FY12 $2,735.504M, FY13 $2,803.393M and FY14 $1,777.322M. R-2 data reflects variant unique funding only.

R2A costs shown above reflects service funding only.

R-2A(section B)/R-3 displays total combined Service (i.e. not Service specific), including International partners, funding for JSF Engineering and Manufacturing Development(EMD) and JSF Deployability and Suitability Enhancements (D&S).

JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

D&S Includes:
USAF PE 0604800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
UASF PE 0207142F BPAC 675346
USN FY13 PE 0604800N Project Unit 2261
USN FY14 PE 0604800N Project Unit 3353
USMC FY13 PE 0604800M Project Unit 2262
USMC FY14 PE 0604800M Project Unit 3351

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800N: *JT Strike Fighter (JSF) - EMD*	**PROJECT** 2261: *Joint Strike Fighter EMD*

A. Mission Description and Budget Item Justification

The F-35 Joint Strike Fighter (JSF) Program will develop and field an affordable, highly common family of next generation strike aircraft for the United States Navy, Air Force, Marine Corps and allies. The three variants are the F-35A Conventional Takeoff and Landing (CTOL); F-35B Short Takeoff and Vertical Landing (STOVL); and the F-35C Aircraft Carrier suitable Variant (CV). The CTOL will be a stealthy multi-role aircraft, primary air-to-ground for the Air Force to replace the F-16 and A-10 and complement the F-22. The STOVL variant will be a multi-role strike fighter aircraft to replace the AV-8B and F/A-18A/C/D for the Marine Corps, replace the Sea Harrier and GR 7 for the United Kingdom, and replace the AV-8 currently employed by the Italian Navy. The CV will provide the DoN a multi-role, stealthy strike fighter aircraft to complement the F/A-18E/F.

The United Kingdom, other International Partner nations, and Foreign Military Sales customers are also participants in the JSF program. The program shown here reflects USN, USMC, USAF, and International Partner funding.

The top-line Program Element reflects the unique variant for each Service. Funding at the accomplishment/planned program level is reported as the total of all services and partners as these activities support all aircraft variants.

The SDD Budget funds a total quantity of 20 RDT&E test articles to include 6 ground test articles and 14 flight test articles for Navy and Air Force use.

FY07: 1 Conventional Take Off and Landing (CTOL) flight test article
FY08: 1 Short Take Off and Vertical Landing (STOVL) flight test article); 1 STOVL ground test article
FY09: 1 STOVL flight test article; 2 CTOL ground test articles
FY10: 6 flight test articles: 3 CTOL, 2 STOVL, 1 Carrier Variant (CV); 3 ground test articles: 1 STOVL, 2 CV
FY11: 4 flight test articles: 1 CTOL, 1 STOVL, 2 CV
FY13: 1 CV flight test article

BA5 - This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting Engineering and Manufacturing Development (EMD) tasks aimed at meeting validated requirements prior to full-rate production.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: System Development and Demonstration	2,025.446	1,795.102	761.153
Articles:	0	0	0
Description: SDD execution of the Air System (Lockheed Martin) including International Commonality Effort; includes airframe, vehicle and mission systems, autonomic logistics, systems engineering & test efforts.			
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue SDD execution of the Air System, with Lockheed Martin including International Commonality Effort which includes airframe, vehicle systems, mission systems, autonomic logistics, systems engineering, and integrated test efforts. ***FY 2013 Plans:*** Continue SDD execution of Air System (Lockheed Martin), including International Commonality Effort. Efforts include airframe, vehicle systems, mission systems, autonomic logistics, systems engineering, and integrated test efforts. ***FY 2014 Plans:*** Continue SDD execution of Air System Lockheed Martin, including International Commonality Effort which include, airframe, vehicle systems, mission systems, autonomic logistics, systems engineering, and integrated test efforts. Activity aligned to IMS with planned completion of SDD in 2018.			
Title: F135 Propulsion System ***Articles:*** ***Description:*** SDD execution of the F135 Propulsion System (Pratt & Whitney) including International Commonality Effort; includes testing, autonomic logistics, integration & performing technology maturation efforts. ***FY 2012 Accomplishments:*** Continue SDD execution of the F135 Propulsion System with Pratt & Whitney that includes engine testing, autonomic logistics, integration and performing technology maturation efforts. ***FY 2013 Plans:*** Continue SDD execution of F135 Propulsion System (Pratt & Whitney), including engine testing, autonomic logistics, integration and performing technology maturation efforts. ***FY 2014 Plans:*** Continue SDD execution of the F135 Propulsion System with Pratt & Whitney that includes engine testing, autonomic logistics, integration and performing technology maturation efforts. Funding increase from FY13 to FY14 due to increase of total SDD contract value resulting from the total program baseline review.	277.559 0	359.618 0	399.749 0
Title: F136 Propulsion System ***Articles:*** ***Description:*** SDD execution of the F136 Propulsion System (General Electric/Rolls Royce) ***FY 2012 Accomplishments:***	5.000 0	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continued F136 Propulsion System Development effort by the GE/Rolls Royce Fighter Engine Team.			
Title: Systems Engineering (SE)	44.121	20.063	32.188
Articles:	0	0	0
Description: SDD SE including systems operations requirements analysis, program integration, requirements integration, and interoperability support. ***FY 2012 Accomplishments:*** Continue SDD Systems Engineering including systems operations requirements analysis, program integration, requirements integration, and interoperability support. ***FY 2013 Plans:*** Continue SDD SE, including systems operations requirements analysis, program integration, requirements integration, and interoperability support. Decrease in funds is due to across the board reduction between both services. ***FY 2014 Plans:*** Continue SDD SE, including systems operations requirements analysis, program integration, requirements integration, and interoperability support.			
Title: Development Test and Evaluation (DT&E)	152.406	374.258	381.713
Articles:	0	0	0
Description: Government DT&E/Operational Testing (OT) in support of first flight of test aircraft. Elements of DT&E include preparation for flight testing and weapons integration testing. ***FY 2012 Accomplishments:*** Continue government DT&E/OT in support of test aircraft. Continue flight sciences testing of Conventional Take Off and Landing (CTOL), Short Take Off Vertical Landing (STOVL), and Carrier Variant (CV) variants to expand the air vehicle envelope to support mission systems testing to include initial Block 2B. Elements of DT&E include preparation for flight testing, weapons integration testing, and component capabilities testing. ***FY 2013 Plans:*** Continue government DT&E/OT in support of test aircraft. Continue flight sciences testing of CTOL, STOVL, and CV variants to expand air vehicle envelope and support mission systems testing (include initial Block 2B). Elements of DT&E include preparation for flight testing, weapons integration testing, and component capabilities testing. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue government DT&E/OT in support of test aircraft. Continue flight sciences testing of CTOL, STOVL, and CV variants to expand air vehicle envelope and support mission systems testing (include initial Block 2B). Elements of DT&E include preparation for flight testing, weapons integration testing, and component capabilities testing.			
Title: Development Support	137.364	140.477	95.760
Articles:	0	0	0
Description: SDD Support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities.			
FY 2012 Accomplishments: Continue SDD support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities.			
FY 2013 Plans: Continue SDD support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities.			
FY 2014 Plans: Continue SDD support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities. Development Support decrease is due to across the board reduction between both services.			
Title: Program Management Support	93.608	113.875	106.759
Articles:	0	0	0
Description: Management support services, civilian pay, travel, engineering technical services, and studies analyses and evaluations in support of program objectives.			
FY 2012 Accomplishments: Continue management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives.			
FY 2013 Plans: Continue management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives. Program Management Support increase is due to increase in Air Systems Nautical Command personnel.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800N: *JT Strike Fighter (JSF) - EMD*	**PROJECT** 2261: *Joint Strike Fighter EMD*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue management support services, travel, engineering technical services, and studies analyses and evaluations in support of program objectives. Program Management Support decrease is due to acress the board reduction between both services. Continue use of RDT&E for civilian pay (Air Force Only).			
Accomplishments/Planned Programs Subtotals	2,735.504	2,803.393	1,777.322
RDT&E,AF 0604800F	1,366.147	1,192.506	782.335
International Partner (SDD)	145.664	149.346	4.411
RDT&E,N (USMC) 0604800M/2262	617.695	737.149	482.823
Navy Subtotals	605.998	724.392	507.753

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E/0604800F: *Joint Strike Fighter SDD*	1,366.147	1,192.506	782.335		782.335	621.432	486.094	175.591	77.992	0.000	22,151.183
• International: *International Partner (SDD/FOD)*	145.664	149.346	4.411		4.411	0.000	0.000	0.000	0.000	0.000	4,947.074
• APAF/0207142F: *F-35 Joint Strike Strike Fighter*	3,289.615	3,124.302	3,060.770		3,060.770	3,921.250	5,188.155	5,250.891	5,850.477	150,878.750	189,907.778
• RDT&E/0604800M/2262: *JT Strike Fighter (JSF) - EMD*	617.695	737.149	482.823		482.823	557.360	439.945	244.047	96.185	0.000	3,777.346
• APN/0605B: *F-35 Joint Strike Fighter STOVL Spares*	23.430	99.006	41.707		41.707	131.216	94.193	66.423	127.264	0.000	583.239
• APN/0147C: *F-35 Joint Strike Fighter CV AP*	109.066	65.180	94.766		94.766	132.063	185.904	246.779	190.141	3,364.677	5,219.579
• APN/0605C: *F-35 Joint Strike Fighter CV Spares*	29.902	41.466	42.060		42.060	17.310	32.270	121.283	63.995	0.000	348.286
• OPN/4265: *Other Aviation Support Equipment*	5.665	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.665
• International 2: *International Procurement*	1,808.640	3,453.903	5,738.517		5,738.517	7,563.725	8,328.889	8,153.307	7,347.293	0.000	43,848.672
• MC/0207142F: *USAF MILCON*	24.250	13.530	41.900		41.900	72.100	65.000	66.170	11.000	1,554.200	2,358.300

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APAF/0204142F: *USAF Modification Funding*	0.000	147.995	157.777		157.777	245.462	223.683	252.141	256.680	0.000	1,288.348
• FOD/0207142F 675346: *USAF Follow-on Development*	0.000	8.117	23.000		23.000	104.866	132.174	229.912	300.050	0.000	798.119
• 0207142F/USAF: *USAF Spares*	149.556	181.833	103.582		103.582	235.183	271.211	235.251	342.508	0.000	1,971.440
• OPN/4267: *Logistics Information System (ALIS)*	0.000	3.826	4.827		4.827	4.554	4.604	5.729	5.830	43.558	72.928
• USAF/OPAF PE 27142F: *OPAF*	0.000	0.600	2.200		2.200	2.943	2.471	2.345	2.387	0.000	12.946
• APN/0592: *F-35 STOVL Series*	0.000	0.000	147.130		147.130	291.910	284.360	176.610	181.234	0.000	1,081.244
• APN/0593: *F-35 CV Series*	0.000	0.000	31.100		31.100	52.900	62.130	98.980	102.456	0.000	347.566
• RDT&E/0604800M/3350: *F-35B Sustainment/Capability Enhancements*	0.000	0.000	14.904		14.904	14.976	14.960	0.000	0.000	0.000	44.840
• RDT&E/0604800M/3351: *F-35B Follow-on Development*	0.000	0.000	14.904		14.904	19.968	60.837	114.965	172.906	0.000	383.580
• USAF SDD BP 653832: *Deployability and Suitability Enhancements*	0.000	17.800	34.000		34.000	33.000	30.000	0.000	0.000	0.000	114.800
• PAF/0207142F: *JSF CTOL Advance Procurement*	228.977	293.400	363.783		363.783	482.795	509.828	578.000	588.404	18,585.140	22,633.855
• DCA/0207142F 676011: *Dual Capable Aircraft (DCA)*	9.682	0.000	10.000		10.000	0.000	0.000	0.000	0.000	0.000	19.682
• APN/0147: *F-35 Joint Strike Fighter CV*	1,447.097	1,007.632	1,135.444		1,135.444	1,082.046	1,468.775	2,054.690	2,532.068	26,737.969	45,618.677
• APN/0152C: *F-35 Joint Strike Fighter STOVL AP*	117.229	106.199	103.195		103.195	143.887	203.057	226.014	136.732	4,095.291	5,755.765
• APN/0152: *F-35 Joint Strike Fighter STOVL*	1,141.906	1,404.737	1,267.260		1,267.260	1,209.937	1,461.056	2,125.324	2,814.618	29,224.711	41,203.070
• USN MILCON: *USN JSF MILCON*	144.400	117.600	209.000		209.000	320.500	151.700	48.100	0.000	830.600	2,259.300
• RDT&E/0604800N/3194: *USN USRL*	26.044	19.534	0.000		0.000	0.000	0.000	0.000	0.000	0.000	149.262

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

The SDD program consists of a cost-reimbursement contract awarded to Lockheed Martin Aeronautics Company to develop the F-35 Air System, consisting of three aircraft variants and its associated logistics support system, for the U.S. Services and international participants. Similarly, a cost-reimbursement contract was awarded to Pratt & Whitney to develop the F135 propulsion system. Ground and flight testing will be conducted during development to accomplish validation and verification, with the extensive use of modeling and simulation to offset the risk of this large, complex, and concurrent lifecycle program. A comprehensive logistics support environment, including an integrated training system for aircrew, maintenance, and support personnel, is also being developed.

On 25 April 2011, the Department of Defense terminated the development of the General Electric Rolls-Royce Fighter Engine Team F136 propulsion system.

The F-35 Program has made international involvement a key element of the acquisition strategy. This includes international partnership in the development, production, and sustainment phases of the lifecycle. Additional international participation includes Foreign Military Sales arrangements.

In Fiscal Year 2007, separate cost-type contracts were awarded to Lockheed Martin Aeronautics Company and Pratt & Whitney to begin low rate initial production for F-35 air vehicles, propulsion systems, and sustainment for the fielded systems. Transition to fixed-price-type contracts occurred with the fourth low rate lot. To provide logistics support for delivered aircraft, Performance-Based Logistics cost-type contracts will be awarded to Lockheed Martin Aeronautics Company and Pratt & Whitney.

At the completion of Low Rate Initial Production, a Defense Acquisition Board review, and Milestone Decision Authority approval, the F-35 Program will enter Full Rate Production. Fixed-price procurement contracts will be awarded for F-35 air vehicles and propulsion systems for the U.S. Services and international participants. Multiyear procurement authority for the F-35 Air System will be requested for Full Rate Production. Concurrently, multiple-year, fixed-price-type Performance Based Logistics contracts for sustainment will be executed to support multi-Service and multi-national requirements.

E. Performance Metrics

The following are the key performance parameters from the F-35 Selected Acquisition Report dated 31 December 2011:

Performance Metrics reflect Key Program Performance data.

Combat Radius
Conventional Take Off and Landing Does Not Meet Requirement
Carrier Variant (CV) Meets Tripwire Requirement
Short Take Off Vertical Landing (STOVL) Meets/Exceeds Tripwire Requirement

CV Recovery
Maximum Approach Speed Meets Requirement In Tripwire Band

STOVL Performance
Flat Deck (High-High-High Profile Fuel) Meets Requirement In Tripwire Band
Ski Jump (High-Medium-Medium-High Profile Fuel) Meets Requirement In Tripwire Band
Vertical Landing Bring Back Meets Requirement In Tripwire Band

Interoperability
Net Ready Criteria- Meets Requirement In Tripwire Band

Radio Frequency Signature Meets/Exceeds Tripwire Requirement

Force Protection
CB Pilot Protection (New Key Performance Parameters Per CN3) - Meets/Exceeds Tripwire Requirement

Mission Reliability
Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement
CV Exceeds ORD Objective
Short Take Off Vertical Landing (STOVL) USMC Meets/Exceeds Tripwire Requirement
STOVL UK Meets/Exceeds Tripwire Requirement

Sortie Generation Rate
Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement
Carrier Variant (CV) Meets/Exceeds Tripwire Requirement
STOVL USMC Meets/Exceeds Tripwire Requirement
STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprints
CTOL Meets/Exceeds Tripwire Requirement
STOVL USMC Meets/Exceeds Tripwire Requirement

Logistics Footprint- Volume
CV Exceeds ORD Objective

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

STOVL USMC Exceeds ORD Objective
STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprint-Weight
CV Exceeds ORD Objective
STOVL USMC Exceeds ORD Objective
STOVL UK Meets/Exceeds Tripwire Requirement

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Lockheed Martin - SDD	C/CPAF	Lockheed Martin:Ft. Worth, TX	27,393.270	2,025.446	Nov 2011	1,795.102	Dec 2012	761.153	Dec 2013	-		761.153	2,093.817	34,068.788	27,535.632
Lockheed Martin - IDIQ D0022	SS/IDIQ	Lockheed Martin:Ft. Worth, TX	11.572	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	11.572	
Lockheed Martin - IDIQ D0009	SS/IDIQ	Lockheed Martin:Ft. Worth, TX	16.759	0.000		0.000		0.000		-		0.000	0.000	16.759	
Lockheed Martin - BOA	SS/BOA	Lockheed Martin:Ft. Worth, TX	3.511	0.000		0.000		0.000		-		0.000	0.000	3.511	
Pratt and Whitney - SDD	C/CPAF	Pratt and Whitney:Hartford, CT	6,906.621	277.559	Oct 2011	359.618	Oct 2012	399.749	Dec 2013	-		399.749	274.288	8,217.835	6,810.646
Pratt and Whitney - Close Out Contract C0132	C/CPFF	Pratt and Whitney:Hartford, CT	1.364	0.000		0.000		0.000		-		0.000	0.000	1.364	
Pratt and Whitney - Close Out Contract C0050	SS/CPFF	Pratt and Whitney:Hartford, CT	2.211	0.000		0.000		0.000		-		0.000	0.000	2.211	
Pratt and Whitney - BOA	SS/BOA	Pratt and Whitney:Hartford, CT	35.983	0.000		0.000		0.000		-		0.000	0.000	35.983	
Pratt and Whitney - IDIQ	SS/IDIQ	Pratt and Whitney:Hartford, CT	10.925	0.000		0.000		0.000		-		0.000	0.000	10.925	
General Electric - SDD	SS/CPAF	FET:Cincinnati, OH	2,155.573	5.000	Sep 2012	0.000		0.000		-		0.000	0.000	2,160.573	2,415.492
General Electric - IDIQ D0009	SS/IDIQ	FET:Cincinnati, OH	0.264	0.000		0.000		0.000		-		0.000	0.000	0.264	
General Electric - IDIQ D0074	SS/IDIQ	FET:Cincinnati, OH	4.175	0.000		0.000		0.000		-		0.000	0.000	4.175	
General Electric - F136 Transition	SS/CPFF	FET:Cincinnati, OH	100.400	0.000		0.000		0.000		-		0.000	0.000	100.400	
General Electric - BOA	SS/BOA	FET:Cincinnati, OH	5.548	0.000		0.000		0.000		-		0.000	0.000	5.548	
General Electric - Phase IIIb	SS/CPAF	FET:Cincinnati, OH	382.753	0.000		0.000		0.000		-		0.000	0.000	382.753	
Systems Engineering	Various	Various:Various	289.956	44.121	Oct 2012	20.063	Nov 2012	32.188	Nov 2013	-		32.188	99.915	486.243	
		Subtotal	37,320.885	2,352.126		2,174.783		1,193.090		0.000		1,193.090	2,468.020	45,508.904	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AFFTC/Eglin	Various	Eglin AFB:Eglin, FL	102.435	14.298	Oct 2011	15.340	Oct 2012	5.416	Nov 2013	-		5.416	8.672	146.161	
ASC/AFRL	Various	ASC/AFRL:Wright Patterson AFB, OH	55.685	8.762	Oct 2011	8.255	Oct 2012	2.525	Nov 2013	-		2.525	5.475	80.702	
Bolling AFB	Various	Bolling AFB:Washington, DC	6.775	0.000		0.000		0.000		-		0.000	0.000	6.775	
DMEA	Various	DMEA:Wright Patterson AFB, OH	5.630	0.000	Oct 2011	1.400	Nov 2012	0.000	Nov 2013	-		0.000	0.000	7.030	
ESC	Various	ESC:Hanscom AFB, MA	7.103	0.000	Oct 2011	0.511	Nov 2012	0.000	Nov 2013	-		0.000	0.000	7.614	
AEDC/Fuel	Various	Various:Various	143.754	0.000	Oct 2011	23.266	Nov 2012	0.000	Nov 2013	-		0.000	0.000	167.020	
NADEP Jacksonville	Various	NADEP:Jacksonville, FL	7.880	0.000	Oct 2011	1.757	Oct 2012	0.000	Nov 2013	-		0.000	0.000	9.637	
Miscellaneous	Various	Various:Various	226.696	51.771	Oct 2011	21.332	Nov 2012	37.488	Nov 2013	-		37.488	80.491	417.778	
NAWC China Lake	Various	NAWC WD:China Lake, CA	96.177	21.418	Oct 2011	24.833	Nov 2012	20.710	Nov 2013	-		20.710	51.927	215.065	
NAWC Patuxent River	Various	NAWC AD:Patuxent River, MD	299.158	41.115	Oct 2011	42.672	Nov 2012	29.621	Nov 2013	-		29.621	100.346	512.912	
NAWC TSD	Various	NAWC TSD:Orlando, FL	9.680	0.000	Oct 2011	0.771	Nov 2012	0.000	Nov 2013	-		0.000	0.000	10.451	
NSWC	Various	Various:Various	3.813	0.000	Oct 2011	0.308	Nov 2012	0.000	Nov 2013	-		0.000	0.000	4.121	
SPAWAR	Various	Various:Various	8.434	0.000	Oct 2011	0.032	Nov 2012	0.000	Nov 2013	-		0.000	0.000	8.466	
DFAS	Various	Various:Various	0.000	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	0.000	
SBIR Technology Insertion Congressional Add	Various	Various:Various	24.187	0.000		0.000	Nov 2012	0.000		-		0.000	0.000	24.187	
		Subtotal	997.407	137.364		140.477		95.760		0.000		95.760	246.911	1,617.919	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NAWC China Lake	Various	NAWC WD:China Lake, CA	26.630	7.581	Oct 2011	5.829	Nov 2012	3.820	Nov 2013	-		3.820	9.249	53.109	
NAWC Patuxent River	Various	NAWC AD:Patuxent River, MD	301.964	74.780	Oct 2011	115.186	Nov 2012	153.350	Nov 2013	-		153.350	318.568	963.848	
Edwards AFB	Various	Edwards AFB:Edwards AFB, CA	340.541	23.905	Oct 2011	82.500	Nov 2012	130.000	Nov 2013	-		130.000	263.000	839.946	
Other (including Classified PIDs)	Various	Various:Various	26.080	30.757	Oct 2011	56.449	Nov 2012	61.803	Nov 2013	-		61.803	137.987	313.076	
WEPS/Eglin	Various	WEPS/Eglin:Various	27.829	0.000	Oct 2011	0.000		0.000		-		0.000	0.000	27.829	
JTIC	Various	Various:Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
OT-AFOTEC/AFFC	Various	OT-AFOTEC/ AFFTC:Kirkland AFB, NM/Eglin AFB, FL	93.604	15.383	Oct 2011	108.518	Nov 2012	32.740	Nov 2013	-		32.740	344.578	594.823	
OT-JITC/OPTEV	Various	OT-JITC/ OPTEC:Various	6.211	0.000	Oct 2011	5.776	Oct 2012	0.000	Nov 2013	-		0.000	0.100	12.087	
		Subtotal	822.859	152.406		374.258		381.713		0.000		381.713	1,073.482	2,804.718	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Business Integration - Cost ACT I	SS/CPFF	ACT I:Arlington, VA	5.700	2.903	Oct 2011	3.049	Dec 2012	3.248	Dec 2013	-		3.248	1.681	16.581	18.731
Security Mantech	C/FP	Mantech:Arlington, VA	50.978	10.500	Oct 2011	11.046	Dec 2012	11.600	Dec 2013	-		11.600	12.484	96.608	94.474
Business Integ - Acq PA Cons	Various	Various:Various	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
Autolog - SEIT DRC	C/CPFF	DRC:Arlington, VA	5.916	0.000		0.000		0.000		-		0.000	0.000	5.916	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Chief Engineer - First Principles	C/CPFF	First Principles:Arlington, VA	3.016	1.988	Oct 2011	1.836	Nov 2012	1.928	Dec 2013	-		1.928	3.190	11.958	11.852
ASC Civilian Pay	Various	ASC CIVPAY:Wright Patterson, AFB, OH	0.000	14.564	Oct 2011	35.724	Oct 2012	18.586	Oct 2013	-		18.586	76.779	145.653	
Operations Wyle	C/CPFF	Wyle:Arlington, VA	90.871	20.774	Oct 2011	23.305	Dec 2012	24.884	Dec 2013	-		24.884	27.429	187.263	193.907
Operations SAFTAS	C/CPAF	Saftas:Arlington, VA	101.734	20.529	Oct 2011	12.867	Dec 2012	17.350	Dec 2013	-		17.350	33.778	186.258	192.329
Operations Stanley	C/CPAF	Stanley:Arlington, VA	159.020	22.350	Oct 2011	22.051	Oct 2012	24.604	Dec 2013	-		24.604	35.090	263.115	268.705
GE F136 Congressional Studies	Various	Various:Various	0.800	0.000		0.000		0.000		-		0.000	0.000	0.800	
Travel and Misc	Various	Various:Various	14.499	0.000	Oct 2011	3.997	Oct 2012	4.559	Nov 2013	-		4.559	17.652	40.707	
		Subtotal	432.534	93.608		113.875		106.759		0.000		106.759	208.083	954.859	

Remarks

Cumulative Award Fee earned in prior years for Stanley is 99%.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Subtotals	39,573.685	2,735.504		2,803.393		1,777.322		0.000		1,777.322	3,996.496	50,886.400	
RDT&E,AF 0604800F	-	1,366.147		1,192.506		782.335		-		782.335	-	-	-
International Partner (SDD)	-	145.664		149.346		4.411		-		4.411	-	-	-
RDT&E,N (USMC) 0604800M/2262	-	617.695		737.149		482.823		-		482.823	-	-	-
Project Cost Totals	39,573.685	605.998		724.392		507.753		0.000		507.753	3,996.496	50,886.400	

Remarks

NOTE 1: Prior Years reflect $17,449.086M USAF/$16,874.804M USN/$602.142 USMC /$4,647.653M International/Total $39,573.685M

FY 2012 reflects $1,366.147 USAF/$605.998M USN/$617.695M USMC/$145.664M International/Total $2,735.504M

FY 2013 reflects $1,192.506M USAF/$724.392M USN/$737.149M USMC/$149.346M International/Total $2,803.393M

FY 2014 reflects $782.335M USAF/$507.753M USN/$482.823M USMC/$4.411M International/Total $1,777.322M

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

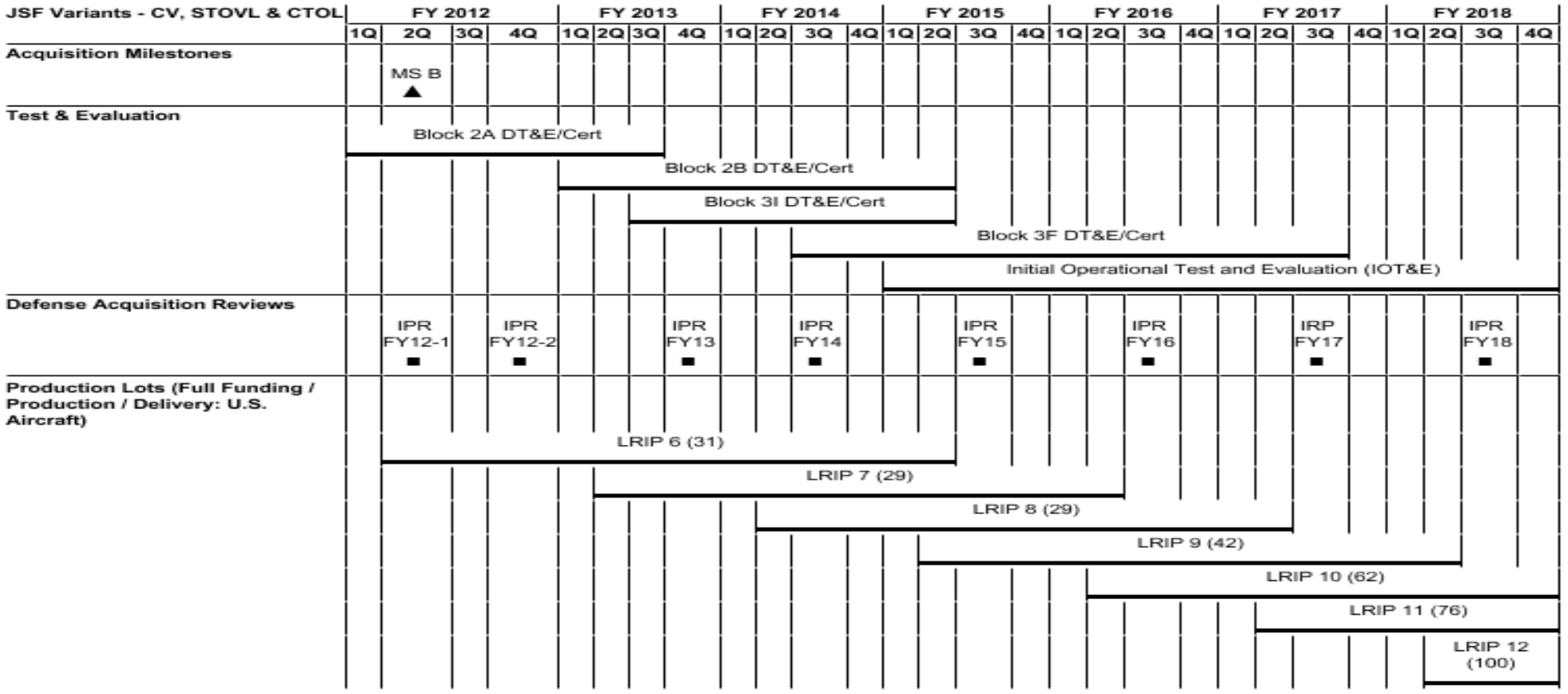
NOTE 2:R-2A/R-3 displays total combined service(i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements(D&S).

JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

D&S Includes:
USAF PE 0604800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
UASF PE 0207142F BPAC 675346
USN FY13 PE 0604800N Project Unit 2261
USN FY14 PE 0604800N Project Unit 3353
USMC FY13 PE 0604800M Project Unit 2262
USMC FY14 PE 0604800M Project Unit 3351

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*



2014PB - 0604800N - 2261

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800N: *JT Strike Fighter (JSF) - EMD*	**PROJECT** 2261: *Joint Strike Fighter EMD*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
JSF Variants - CV, STOVL & CTOL				
Acquisition Milestones: Milestone B	2	2012	2	2012
Test & Evaluation: Test and Evaluation: Block 2A DT&E/Cert	1	2012	3	2013
Test & Evaluation: Test and Evaluation: Block 2B DT&E/Cert	1	2013	2	2015
Test & Evaluation: Test and Evaluation: Block 3I DT&E/Cert	3	2013	2	2015
Test & Evaluation: Test and Evaluation: Block 3F DT&E/Cert	3	2014	3	2017
Test & Evaluation: Test and Evaluation: Initial Operational Test and Evaluation (IOT&E)	1	2015	4	2018
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-12-1	2	2012	2	2012
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-12-2	4	2012	4	2012
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-13	4	2013	4	2013
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-14	3	2014	3	2014
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-15	3	2015	3	2015
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-16	3	2016	3	2016
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-17	3	2017	3	2017
Defense Acquisition Reviews: System Development Reviews: Interim Program Review (IPR) FY-18	3	2018	3	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 2261: *Joint Strike Fighter EMD*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 6 Full Funding / Production / Delivery	2	2012	2	2015
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 7 Full Funding / Production / Delivery	2	2013	2	2016
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 8 Full Funding / Production / Delivery	2	2014	2	2017
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 9 Full Funding / Production / Delivery	2	2015	2	2018
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 10 Full Funding / Production / Delivery	2	2016	4	2018
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 11 Full Funding / Production / Delivery	2	2017	4	2018
Production Lots (Full Funding / Production / Delivery: U.S. Aircraft): LRIP 12 Full Funding / Production / Delivery	2	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3194: *Joint Reprogramming Center*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3194: *Joint Reprogramming Center*	103.684	26.044	19.534	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	149.262
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The United States Reprogramming Laboratory (USRL)/Capability Concept project, previously referred to as Joint Strike Fighter Joint Reprogramming Center/Capability Concept is required to adequately develop and maintain Operational Sensor Engineering F-35(V) Mission Data to support United States Navy, United States Marine Corps, and United States Air Force multi-mission objectives. USRL will allow rapid operational response to threat changes. Funding is provided for:

- Aircraft sensor function and combat identification
- Conducting Offensive Identification/Jamming of potential threats
- Providing self defense against surface threats, air, and missile threats
- Detecting and identifying targets, to include moving land, air, and missile targets
- Providing mission planning to ensure aircraft survivability
- Conducting offensive operations against surface threats
- Conducting sensor management and information processing
- Software development for this requirement is funded through the F-35 Joint Strike Fighter System Development and Demonstration (SDD) baseline

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: USRL Build Up	13.544	6.734	0.000
Articles:	0	0	
FY 2012 Accomplishments: Provide funds to Lockheed Martin Aero in support of reprogramming techniques, development and verification capacity required to adjust to emergent threats, and validate system effectiveness to increase survivability of the weapon system. Perform USRL stand-up testing and acceptance tasks.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3194: *Joint Reprogramming Center*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Provide funds to Lockheed Martin Aero in support of reprogramming techniques, development and verification capacity required to adjust to emergent threats, and validate system effectiveness to increase survivability of the weapon system. Perform USRL stand-up testing and acceptance tasks.			
Title: Development Support	12.500	12.800	0.000
Articles:	0	0	
FY 2012 Accomplishments: Continue SDD Systems Engineering (SE) including systems operations requirements analysis, program integration, requirements integration, and interoperability support of the United States Reprogramming Laboratory (USRL).			
FY 2013 Plans: Continue SDD SE including systems operations requirements analysis, program integration, requirements integration, and interoperability support of the USRL.			
Accomplishments/Planned Programs Subtotals	26.044	19.534	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Joint Reprogramming Capability (JRC) is a subset of JSF Program and falls within JSF acquisition strategy. JRC is needed to support scheduled Initial Operational Capability dates (and supporting test activity) for three JSF variants. To that end, a concept of operations is being developed for JRC to address Mission Data development, verification/validation/testing, and to merge service unique requirements into Joint processes/procedures. Previously envisioned as a single facility, JRC is now comprised of two distinct facilities under JRC concept. The USRL will support U.S. Joint Service reprogramming requirements; the Partner Reprogramming Laboratory will focus on International Partner areas of interest.

Inter-Service collaboration will eliminate duplication of effort, maximize technology to improve configuration control, employ advance networks, and ensure implementation of an enterprise (single shared database) solution. By capitalizing on legacy platform synergy, operational mission data intellect, proven processes, and existing reprogramming center resources, this approach will improve efficiencies. A Joint Command reprogramming authority will determine/manage reprogramming priorities and implementation authority.

The USRL Mission data development strategy is based upon an assessment of legacy systems, F-22 data, corporate expertise at Eglin Air Force Base/Naval Air Warfare Center Weapons Division, personnel, adjusted cost and schedule projections keyed to complexity of multi-variant and multi-mission aircraft; JSF-specific

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3194: *Joint Reprogramming Center*

utilization of multiple sources of non-sustained disparate, raw, intelligence data, development of threat assessment - metrics; and build-up of real-world scenarios for systems verification and validation. These efforts support Joint Strike Fighter (JSF) operational requirements, interoperability, and fratricide mitigation.

Although the JSF Program has contracted with Lockheed Martin and Pratt & Whitney for SDD of JSF, contractors do not have laboratory space available or expertise to perform operational evaluation of lab and flight test data and support field recommendations to level needed. The complexity and magnitude of JSF mission data loads drives decision to utilize government and contractor resources to design and develop a Joint-Service reprogramming facility at Eglin Air Force Base.

E. Performance Metrics

United States Reprogramming Laboratory Stand-up - 3rd Quarter FY 12

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3194: *Joint Reprogramming Center*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary H/W Development	C/CPAF	Lockheed Martin:Ft. Worth, Texas	76.602	7.537	Oct 2011	0.000		0.000		-		0.000	0.000	84.139	84.139
Primary H/W Development Award Fee	C/CPAF	Lockheed Martin:Ft. Worth, Texas	1.252	2.507	Oct 2011	0.000		0.000		-		0.000	0.000	3.759	3.759
Lockheed Martin Various	Various	Lockheed Martin:Ft. Worth, Texas	11.828	3.500	Oct 2011	6.734	Oct 2012	0.000		-		0.000	0.000	22.062	22.062
		Subtotal	89.682	13.544		6.734		0.000		0.000		0.000	0.000	109.960	109.960

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	NAWCWD:China Lake California	14.002	12.500	Oct 2011	12.800	Oct 2012	0.000		-		0.000	0.000	39.302	
		Subtotal	14.002	12.500		12.800		0.000		0.000		0.000	0.000	39.302	

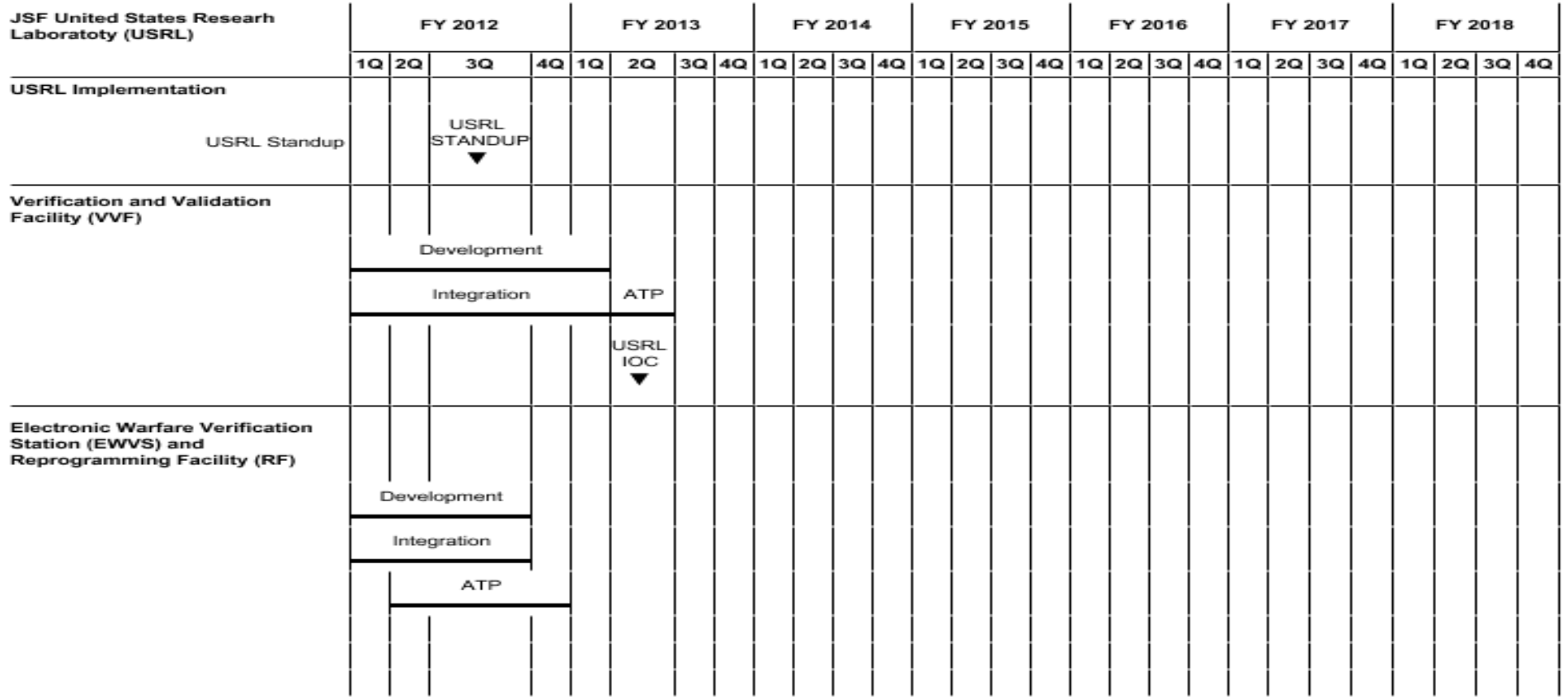
	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	103.684	26.044		19.534		0.000		0.000		0.000	0.000	149.262	

Remarks

Subtotals and totals may not add due to rounding.

Name	PU 2012	2013	2014
Navy 3194	$26.044	$19.534	$0.000

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3194: *Joint Reprogramming Center*



2014PB - 0604800N - 3194

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3194: *Joint Reprogramming Center*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
JSF United States Researh Laboratoty (USRL)				
USRL Implementation: USRL Standup: USRL Standup	3	2012	3	2012
Verification and Validation Facility (VVF): Development	1	2012	1	2013
Verification and Validation Facility (VVF): Integration	1	2012	1	2013
Verification and Validation Facility (VVF): Acceptance Test Program (ATP)	2	2013	2	2013
Verification and Validation Facility (VVF): Initial Operational Capability	2	2013	2	2013
Electronic Warfare Verification Station (EWVS) and Reprogramming Facility (RF): Development	1	2012	3	2012
Electronic Warfare Verification Station (EWVS) and Reprogramming Facility (RF): Integration	1	2012	3	2012
Electronic Warfare Verification Station (EWVS) and Reprogramming Facility (RF): Acceptance Test Program (ATP)	2	2012	4	2012

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3352: *F-35C Sustainment/Capability Enhancements*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3352: *F-35C Sustainment/ Capability Enhancements*	0.000	0.000	0.000	14.992	-	14.992	14.997	14.991	0.000	0.000	0.000	44.980
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

NOTE: * This Navy Project Unit (3352) is a New Start in Fiscal Year 2014.

R-2A cost shown above reflect service funding only.

R-2A (section B)/R-3 displays total combined service (i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements (D&S).

JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

D&S Includes:
USAF PE 64800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
UASF PE 0207142F BPAC 675346
USN FY13 PE 0604800N Project Unit 2261
USN FY14 PE 0604800N Project Unit 3353
USMC FY13 PE 0604800M Project Unit 2262
USMC FY14 PE 0604800M Project Unit 3351

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800N: *JT Strike Fighter (JSF) - EMD*	**PROJECT** 3352: *F-35C Sustainment/Capability Enhancements*

A. Mission Description and Budget Item Justification

Funds enhancements to the deployability and suitability of the air system such as low observable (LO) maintenance enhancements, security architecture updates, and integrated training simulators. These enhancements will provide vital on-demand support to the war-fighter within a deployed environment and are not funded via the existing System Development and Demonstration (SDD) program or tied to Block 4 Operational Fight Program (OFP) development. Funding will result in achieving targeted suitability, maintainability, and affordability returns employing the F-35 in deployed or austere locations.

-Funding at the accomplishment/planned program level is reported as the total of all services as these activities support all aircraft variants. The annual funding contribution between the USN and USMC is approximately equal.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Sustainment and Capability Enhancements	0.000	17.800	56.867
Articles:		0	0
Description: Develop and acquire enhancements to the suitability and maintainability of the air system such as LO maintenance enhancements, security architecture updates, and integrated training simulators. ***FY 2013 Plans:*** Initiate disciplined systems engineering, requirements decomposition, technical maturation and development of suitability and deployability enhancements. ***FY 2014 Plans:*** Conduct systems engineering, technical maturation, integration and test planning for suitability and deployability enhancements.			
Title: Development Test and Evaluation	0.000	0.000	0.639
Articles:			0
Description: Verification and testing for deployability and suitablilty enhancements ***FY 2014 Plans:*** Initiate government test and evaluaton of capability enhancements for Deployable Autonomic Logistics Information System, and LO maintenance enhancements.			
Title: Development Support	0.000	0.000	6.390
Articles:			0
Description: Initiate SDD support efforts for airframe, air vehicle systems, mission systems, weapons integration, mission support, and autonomic logistics development activities. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800N: *JT Strike Fighter (JSF) - EMD*	**PROJECT** 3352: *F-35C Sustainment/Capability Enhancements*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Initiate development enhancement support for Deployable Autonomic Logistics Information System, decentralized maintenance capabilities, Low Observable maintance enhancements, security architecture updates, and integrated training simulators.			
Accomplishments/Planned Programs Subtotals	0.000	17.800	63.896
RDT&E,N (USMC) 0604800M/3350	0.000	0.000	14.904
RDT&E,AF 0604800F/653832	0.000	17.800	34.000
Navy Subtotals	0.000	0.000	14.992

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E/0604800F: *Joint Strike Fighter*	1,366.147	1,192.506	782.335		782.335	621.432	486.094	175.591	77.992	0.000	22,151.183
• International: *International Partner (SDD/FOD)*	145.664	149.346	4.411		4.411	0.000	0.000	0.000	0.000	0.000	4,947.074
• APAF/0207142F: *F-35 Joint Strike Strike Fighter*	3,289.615	3,124.302	3,060.770		3,060.770	3,921.250	5,188.155	5,250.891	5,850.477	150,878.750	189,907.778
• RDT&E/0604800N/2262: *JT Strike Fighter (JSF) - EMD*	617.695	737.149	482.823		482.823	557.360	439.945	244.047	96.185	0.000	3,777.346
• APN/0605B: *F-35 Joint Strike Fighter STOVL Spares*	23.430	99.006	41.707		41.707	131.216	94.193	66.423	127.264	0.000	583.239
• APN/0147C: *F-35 Joint Strike Fighter CV*	109.066	65.180	94.766		94.766	132.063	185.904	246.779	190.141	3,364.677	5,219.579
• APN/0605C: *F-35 Joint Strike Fighter CV Spares*	29.902	41.466	42.060		42.060	17.310	32.270	121.283	63.995	0.000	348.286
• OPN/4265: *Other Aviation Support Equipment*	5.665	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.665
• International 2: *International Procurement*	1,808.640	3,453.903	5,738.517		5,738.517	7,563.725	8,328.889	8,153.307	7,347.293	0.000	43,848.672
• MC/0207142F: *USAF MILCON*	24.250	13.530	41.900		41.900	72.100	65.000	66.170	11.000	1,554.200	2,358.300
• APAF/0204142F: *USAF Modification Funding*	0.000	147.995	157.777		157.777	245.462	223.683	252.141	256.680	0.000	1,288.348

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3352: *F-35C Sustainment/Capability Enhancements*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• FOD/0207142F: *USAF Follow-on Development*	0.000	8.117	23.000		23.000	104.866	132.174	229.912	300.050	0.000	798.119
• 0207142F/USAF: *USAF Spares*	149.556	181.833	103.582		103.582	235.183	271.211	235.251	342.508	0.000	1,971.440
• OPN/4267: *Autonomic Logistics Information System (ALIS)*	0.000	3.826	4.827		4.827	4.554	4.604	5.729	5.830	43.558	72.928
• USAF/OPAF PE 27142F: *OPAF*	0.000	0.600	2.200		2.200	2.943	2.471	2.345	2.387	0.000	12.946
• APN/0592: *F-35 STOVL Series*	0.000	0.000	147.130		147.130	291.910	284.360	176.610	181.234	0.000	1,081.244
• APN/0593: *F-35 CV Series*	0.000	0.000	31.100		31.100	52.900	62.130	98.980	102.456	0.000	347.566
• RDT&E/0604800M/3350: *F-35C Sustainment/Capability Enhancements*	0.000	0.000	14.904		14.904	14.976	14.960	0.000	0.000	0.000	44.840
• RDT&E/0604800M/3351: *F-35C Follow-on Development*	0.000	0.000	14.904		14.904	19.968	60.837	114.965	172.906	0.000	383.580
• USAF SDD BP 653832: *Deployability and Suitability Enhancements*	0.000	17.800	34.000		34.000	33.000	30.000	0.000	0.000	0.000	114.800
• PAF/0207142F: *CTOL Advance Procurement*	228.977	293.400	363.783		363.783	482.795	509.828	578.000	588.404	18,585.140	22,633.855
• DCA/0207142F: *Dual Capable Aircraft (DCA)*	9.682	0.000	10.000		10.000	0.000	0.000	0.000	0.000	0.000	19.682
• APN/0147: *F-35 Joint Strike Fighter CV*	1,447.097	1,007.632	1,135.444		1,135.444	1,082.046	1,468.775	2,054.690	2,532.068	26,737.969	45,618.677
• APN PE BP0152C: *Advance Procurement (STOVL) BP0152C*	117.229	106.199	103.195		103.195	143.887	203.057	226.014	136.732	4,095.291	5,755.765
• APN PE BP0152: *Advance Procurement (STOVL) BP0152*	1,141.906	1,404.737	1,267.260		1,267.260	1,209.937	1,461.056	2,125.324	2,814.618	29,224.711	41,203.070
• USN MILCON: *USN JSF MILCON*	144.400	117.600	209.000		209.000	320.500	151.700	48.100	0.000	830.600	2,259.300
• USN RDT&E USRL: *USN USRL*	26.044	19.534	0.000		0.000	0.000	0.000	0.000	0.000	0.000	149.262

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3352: *F-35C Sustainment/Capability Enhancements*

D. Acquisition Strategy

Implement JSF Joint Executive Steering Board/Configuration Steering Board approved enhancements through existing contracts using the engineering change proposal process. When appropriate, new cost type contracts may be established.

E. Performance Metrics

The following are the key performance parameters from the F-35 Selected Acquisition Report dated 31 December 2011:

Performance Metrics reflect Key Program Performance data.

Combat Radius
Conventional Take Off and Landing Does Not Meet Requirement
Carrier Variant (CV) Meets Tripwire Requirement
Short Take Off Vertical Landing (STOVL) Meets/Exceeds Tripwire Requirement

CV Recovery
Maximum Approach Speed Meets Requirement In Tripwire Band

STOVL Performance
Flat Deck (High-High-High Profile Fuel) Meets Requirement In Tripwire Band
Ski Jump (High-Medium-Medium-High Profile Fuel) Meets Requirement In Tripwire Band
Vertical Landing Bring Back Meets Requirement In Tripwire Band

Interoperability
Net Ready Criteria- Meets Requirement In Tripwire Band

Radio Frequency Signature Meets/Exceeds Tripwire Requirement

Force Protection
CB Pilot Protection (New Key Performance Parameters Per CN3) - Meets/Exceeds Tripwire Requirement

Mission Reliability
Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement
CV Exceeds ORD Objective
Short Take Off Vertical Landing (STOVL) USMC Meets/Exceeds Tripwire Requirement
STOVL UK Meets/Exceeds Tripwire Requirement

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3352: *F-35C Sustainment/Capability Enhancements*

Sortie Generation Rate
Conventional Take Off and Landing (CTOL) Meets/Exceeds Tripwire Requirement
Carrier Variant (CV) Meets/Exceeds Tripwire Requirement
STOVL USMC Meets/Exceeds Tripwire Requirement
STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprints
CTOL Meets/Exceeds Tripwire Requirement
STOVL USMC Meets/Exceeds Tripwire Requirement

Logistics Footprint- Volume
CV Exceeds ORD Objective
STOVL USMC Exceeds ORD Objective
STOVL UK Meets/Exceeds Tripwire Requirement

Logistics Footprint-Weight
CV Exceeds ORD Objective
STOVL USMC Exceeds ORD Objective
STOVL UK Meets/Exceeds Tripwire Requirement

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3352: *F-35C Sustainment/Capability Enhancements*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prime LM Deployability Suitability	SS/CPAF	Lockheed Martin:Ft. Worth, TX	0.000	0.000		17.800	Jul 2013	56.867	Dec 2013	-		56.867	109.461	184.128	184.234
		Subtotal	0.000	0.000		17.800		56.867		0.000		56.867	109.461	184.128	184.234

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	TBD	Various:Various	0.000	0.000		0.000		6.390	Dec 2013	-		6.390	12.299	18.689	18.700
		Subtotal	0.000	0.000		0.000		6.390		0.000		6.390	12.299	18.689	18.700

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	Various:Various	0.000	0.000		0.000		0.639	Dec 2013	-		0.639	1.230	1.869	
		Subtotal	0.000	0.000		0.000		0.639		0.000		0.639	1.230	1.869	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Subtotals	0.000	0.000		17.800		63.896		0.000		63.896	122.990	204.686	
RDT&E,N (USMC) 0604800M/3350	-	0.000		0.000		14.904		-		14.904	-	-	-
RDT&E,AF 0604800F/653832	-	0.000		17.800		34.000		-		34.000	-	-	-
Project Cost Totals	0.000	0.000		0.000		14.992		0.000		14.992	122.990	204.686	

Remarks

NOTE:

R-2A cost shown above reflect service funding only.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3352: *F-35C Sustainment/Capability Enhancements*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

R-2A (section B)/R-3 displays total combined service(i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements(D&S).

JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

D&S Includes:
USAF PE 0604800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
USAF PE 0207142F BPAC 675346
USN PE 0608400N Project Unit 3353
USMC PE 0608400M Project Unit 3351

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3352: *F-35C Sustainment/Capability Enhancements*

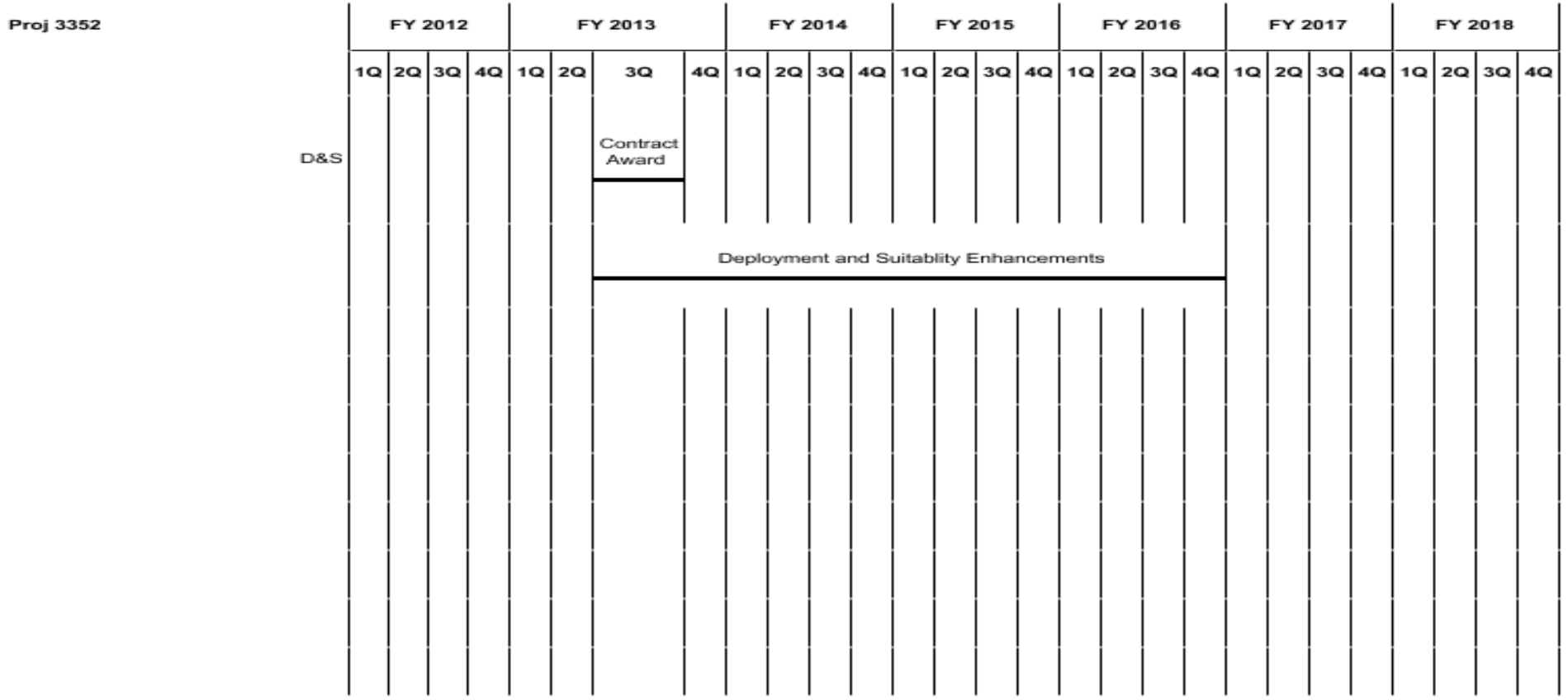


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604800N: *JT Strike Fighter (JSF) - EMD*	**PROJECT** 3352: *F-35C Sustainment/Capability Enhancements*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3352				
D&S: D&S Contract Award	3	2013	3	2013
D&S: D&S Deployment and Suitablity Enhancements	3	2013	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3353: *F-35C Follow-on Development*	0.000	0.000	0.000	11.442	-	11.442	19.996	60.963	115.057	173.276	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

NOTE: * This Navy Project Unit (3353) is a New Start in Fiscal Year 2014.

R-2A cost shown above reflects service funding only.

R-2A (sction B)/R-3 displays combined service funding for JSF Follow-on Development.

JSF FoD Includes:
USAF PE 0207142F BPAC 675346
FY13: USN PE 0604800N Project Unit 2261
FY14: USN PE 0604800N Project Unit 3353
FY13: USMC PE 0604800M Project Unit 2262
FY14: USMC PE 0604800M Project Unit 3351

JSF FoD Includes:
USAF PE 0207142F BPAC 675346
USN PE 0608400N Project Unit 3353
USMC PE 0608400M Project Unit 3351

JSF Dual Capability Aircraft (DCA) Includes:
USAF PE 0207142F BPAC 676011

A. Mission Description and Budget Item Justification

F-35 Follow-on Development (FoD) provides continuing incremental upgrades of the three F-35 variants and associated ground equipment. The FoD acquisition strategy is based upon incremental development of capabilities with each increment consisting of two development cycles. FoD capability planning includes an efficient transition from F-35 SDD to Follow-on Development. As SDD development activities ramp down through FY17, the FoD program will assume responsibility for new

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*

development and the maintenance of associated developmental infrastructure. FoD capability planning currently includes Milestone B in late FY15 to enable Block 4 Engineering and Manufacturing Development efforts from FY16 through FY18, followed by DT and OT testing in 2020 with delivery of capabilities in early 2021. A Materiel Development Decision (MDD) formally approving FoD Material Solution Analysis and Technology Development/Risk Reduction phases for technology acquisition is planned in late FY13.

This program is in Budget Activity 5, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Air Vehicle Follow-on Development (Capability Planning)	9.682	16.834	34.034
Articles:	0	0	0
Description: FY2014 capability planning effort will focus on mission requirements analysis, early engineering, risk reduction and preparations leading to formal acquisition approval of Block 4. Program planning will consist of engineering and development support for defining, managing and acquisition of capability enhancements required to address threats indicated in the Electronic Warfare ICD, the Fifth Generation Fighter Modernization ICD and as further defined in the F-35 Follow-on Development Increment 1 (Block 4) Capability Development Document (CDD) (Note: CDD approval planned in FY-14). ***FY 2012 Accomplishments:*** JSF Dual Capability Aircraft efforts. ***FY 2013 Plans:*** Early capability planning, requirements and alternatives analysis, and US and partner investment planning in accordance with the Production, Sustainment and Follow On Development Memorandum of Agreement. ***FY 2014 Plans:*** Requirements analysis and technical requirements development, systems engineering, and technical planning. A formal Systems Requirements Review is planned in FY14.			
Title: Developmental Test and Evaluation	0.000	0.000	17.100
Articles:			0
Description: Initiate Laboratory and Test Aircraft Upgrade and other test planning activities required for Block 4 and later development , integration, test and evaluation. Changes are needed to support development and evaluation of improvements driven by changes in threat and as identified in the Electronic Warfare ICD and the Fith Generation Fighter Modernization ICD. ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Near term funding will support infrastructure upgrades required for development of enhanced capabilities. This includes replacement of engines and other life limited components on DT aircraft that will be at end of life upon completion of SDD, as well as laboratory upgrades to support development and verification of capabilities to address advanced threats.			
Title: Development Support ***Articles:*** ***Description:*** Technical and Analytical Support ***FY 2014 Plans:*** Initiate development support for defining, managing and acquiring the envisioned F-35C capability enhancements identified in approved requirements documents.	0.000	0.000	4.582 0
Title: Management Services ***Articles:*** ***Description:*** Includes management support, travel, engineering technical services, acquisition planning, studies and analysis in support of FoD Program objectives. ***FY 2014 Plans:*** Acquisition and program planning, documentation development to include all regulatory and statutory requirements required in preparation for Milestone B approval in late FY2015 or early FY16 to begin FoD Increment 1 - Block 4 E&MD	0.000	0.000	3.630 0
Accomplishments/Planned Programs Subtotals	9.682	16.834	59.346
RDT&E,AF 0207142F (FOD)	0.000	8.117	23.000
RDT&E,N (USMC) 0604800M/3351	0.000	0.000	14.904
RDT&E,AF 0207142F (DCA)	9.682	0.000	10.000
RDT&E,N (USMC) 0604800M/2262	-	4.358	-
RDT&E,N (USN) 0604800N/2261	-	4.359	-
Navy Subtotals	0.000	-0.000	11.442

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E/0604800F: *Joint Strike Fighter*	1,366.147	1,192.506	782.335		782.335	621.432	486.094	175.591	77.992	0.000	22,151.183
• International: *International Partner (SDD/FOD)*	145.664	149.346	4.411		4.411	0.000	0.000	0.000	0.000	0.000	4,947.074
• APAF/0207142F: *F-35 Joint Strike Strike Fighter*	3,289.615	3,124.302	3,060.770		3,060.770	3,921.250	5,188.155	5,250.891	5,850.477	150,878.750	189,907.778
• RDT&E/0604800N/2262: *JT Strike Fighter (JSF) - EMD*	617.695	737.149	482.823		482.823	557.360	439.945	244.047	96.185	0.000	3,777.346
• APN/0605B: *F-35 Joint Strike Fighter STOVL Spares*	23.430	99.006	41.707		41.707	131.216	94.193	66.423	127.264	0.000	583.239
• APN/0147C: *F-35 Joint Strike Fighter CV*	109.066	65.180	94.766		94.766	132.063	185.904	246.779	190.141	3,364.677	5,219.579
• APN/0605C: *F-35 Joint Strike Fighter CV Spares*	29.902	41.466	42.060		42.060	17.310	32.270	121.283	63.995	0.000	348.286
• OPN/4265: *Aviation Support Equipment*	5.665	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	5.665
• International 2: *International Procurement*	1,808.640	3,453.903	5,738.517		5,738.517	7,563.725	8,328.889	8,153.307	7,347.293	0.000	43,848.672
• MC/0207142F: *USAF MILCON*	24.250	13.530	41.900		41.900	72.100	65.000	66.170	11.000	1,554.200	2,358.300
• APAF/0204142F: *USAF Modification Funding*	0.000	147.995	157.777		157.777	245.462	223.683	252.141	256.680	0.000	1,288.348
• FOD/0207142F: *USAF Follow-on Development*	0.000	8.117	23.000		23.000	104.866	132.174	229.912	300.050	0.000	798.119
• 0207142F/USAF: *USAF Spares*	149.556	181.833	103.582		103.582	235.183	271.211	235.251	342.508	0.000	1,971.440
• OPN/4267: *Autonomic Logistics Information System (ALIS)*	0.000	3.826	4.827		4.827	4.554	4.604	5.729	5.830	43.558	72.928
• USAF/OPAF PE 27142F: *OPAF*	0.000	0.600	2.200		2.200	2.943	2.471	2.345	2.387	0.000	12.946
• APN/0592: *F-35 STOVL Series*	0.000	0.000	147.130		147.130	291.910	284.360	176.610	181.234	0.000	1,081.244
• APN/0593: *F-35 CV Series*	0.000	0.000	31.100		31.100	52.900	62.130	98.980	102.456	0.000	347.566
• RDT&E/0604800M/3350: *F-35C Sustainment/Capability Enhancements*	0.000	0.000	14.904		14.904	14.976	14.960	0.000	0.000	0.000	44.840

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E/0604800M/3351: *F-35C Follow-on Development*	0.000	0.000	14.904		14.904	19.968	60.837	114.965	172.906	0.000	383.580
• USAF SDD BP 653832: *Deployability and Suitability Enhancements*	0.000	17.800	34.000		34.000	33.000	30.000	0.000	0.000	0.000	114.800
• PAF/0207142F: *JSF CTOL Advance Procurement*	228.977	293.400	363.783		363.783	482.795	509.828	578.000	588.404	18,585.140	22,633.855
• DCA/0207142F : *Dual Capable Aircraft (DCA)*	9.682	0.000	10.000		10.000	0.000	0.000	0.000	0.000	0.000	19.682
• APN/0147: *F-35 Joint Strike Fighter CV*	1,447.097	1,007.632	1,135.444		1,135.444	1,082.046	1,468.775	2,054.690	2,532.068	26,737.969	45,618.677
• APN PE BP0152C: *Advance Procurement (STOVL) BP0152C*	117.229	106.199	103.195		103.195	143.887	203.057	226.014	136.732	4,095.291	5,755.765
• APN PE BP0152: *Advance Procurement (STOVL) BP0152*	1,141.906	1,404.737	1,267.260		1,267.260	1,209.937	1,461.056	2,125.324	2,814.618	29,224.711	41,203.070
• USN MILCON: *USN JSF MILCON*	144.400	117.600	209.000		209.000	320.500	151.700	48.100	0.000	830.600	2,259.300
• USN RDT&E USRL: *USN USRL*	26.044	19.534	0.000		0.000	0.000	0.000	0.000	0.000	0.000	149.262

Remarks

D. Acquisition Strategy

To enable the ability to adjust to potential discrepancies discovered during SDD Block 3 Test and Evaluation, the engineering and development planning support for Follow-on Development will be procured under a cost type contract. A fee provision will be used to target and motivate contractor performance. A separate Basic Ordering Agreement or Indefinite Quantity/Indefinite Delivery contract is planned to provide a long term approach to upgrading and maintaining laboratories and test aircraft. Both Development Support and Management Services will primarily use CPFF Delivery Orders.

E. Performance Metrics

Overall Follow-on Development Performance Metrics will reflect Key Program Performance data established in the F-35 Follow-on Development Increment 1 Capability Development Document (CDD) (Planned for completion and approval in 2014.)

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Requirements Analysis, Systems Engineering and Risk Reduction	SS/CPFF	Lockheed Martin:Ft. Worth, TX	0.000	0.000		16.834	Aug 2013	24.034	Mar 2014	-		24.034	0.000	40.868	
Lockheed Martin - DCA Integration	SS/CPFF	Lockheed Martin:Ft. Worth, TX	0.000	9.682	Mar 2013	0.000		10.000	Mar 2014	-		10.000	0.000	19.682	
		Subtotal	0.000	9.682		16.834		34.034		0.000		34.034	0.000	60.550	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical and Analytic Support	SS/T&M	Lockheed Martin:Ft. Worth, TX	0.000	0.000		0.000		4.582	Mar 2014	-		4.582	0.000	4.582	
		Subtotal	0.000	0.000		0.000		4.582		0.000		4.582	0.000	4.582	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Laboratory and Test Aircraft Infrastructure	TBD	Lockheed Martin:Ft. Worth, TX	0.000	0.000		0.000		17.100	Jan 2014	-		17.100	0.000	17.100	
		Subtotal	0.000	0.000		0.000		17.100		0.000		17.100	0.000	17.100	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support and Milestone Preparations	Various	Various:Various	0.000	0.000		0.000		3.630	Nov 2013	-		3.630	0.000	3.630	
		Subtotal	0.000	0.000		0.000		3.630		0.000		3.630	0.000	3.630	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks															
Cost to Complete, Total Cost, and Target Value are Continuing. When program baseline is estalished and development contract awarded, values will be established.															

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Subtotals	0.000	9.682		16.834		59.346		0.000		59.346	0.000	85.862	
RDT&E,AF 0207142F (FOD)	-	0.000		8.117		23.000		-		23.000	-	-	-
RDT&E,N (USMC) 0604800M/3351	-	0.000		0.000		14.904		-		14.904	-	-	-
RDT&E,AF 0207142F (DCA)	-	9.682		0.000		10.000		-		10.000	-	-	-
RDT&E,N (USMC) 0604800M/2262	-	-		4.358		-		-		-	-	-	-
RDT&E,N (USN) 0604800N/2261	-	-		4.359		-		-		-	-	-	-
Project Cost Totals	0.000	0.000		-0.000		11.442		0.000		11.442	0.000	85.862	

Remarks

NOTE:

R-2A cost shown above reflect service funding only.

R-2A (section B)/R-3 displays total combined service(i.e. not Service-specific, including International partners, funding for JSF Engineering and Manufacturing Development (EMD) and JSF Deployability and Suitability Enhancements(D&S).

JSF EMD Includes:
USAF PE 0604800F BPAC 653831
USN PE 0604800N Project Unit 2261
USMC PE 0604800M Project Unit 2262
International Partners

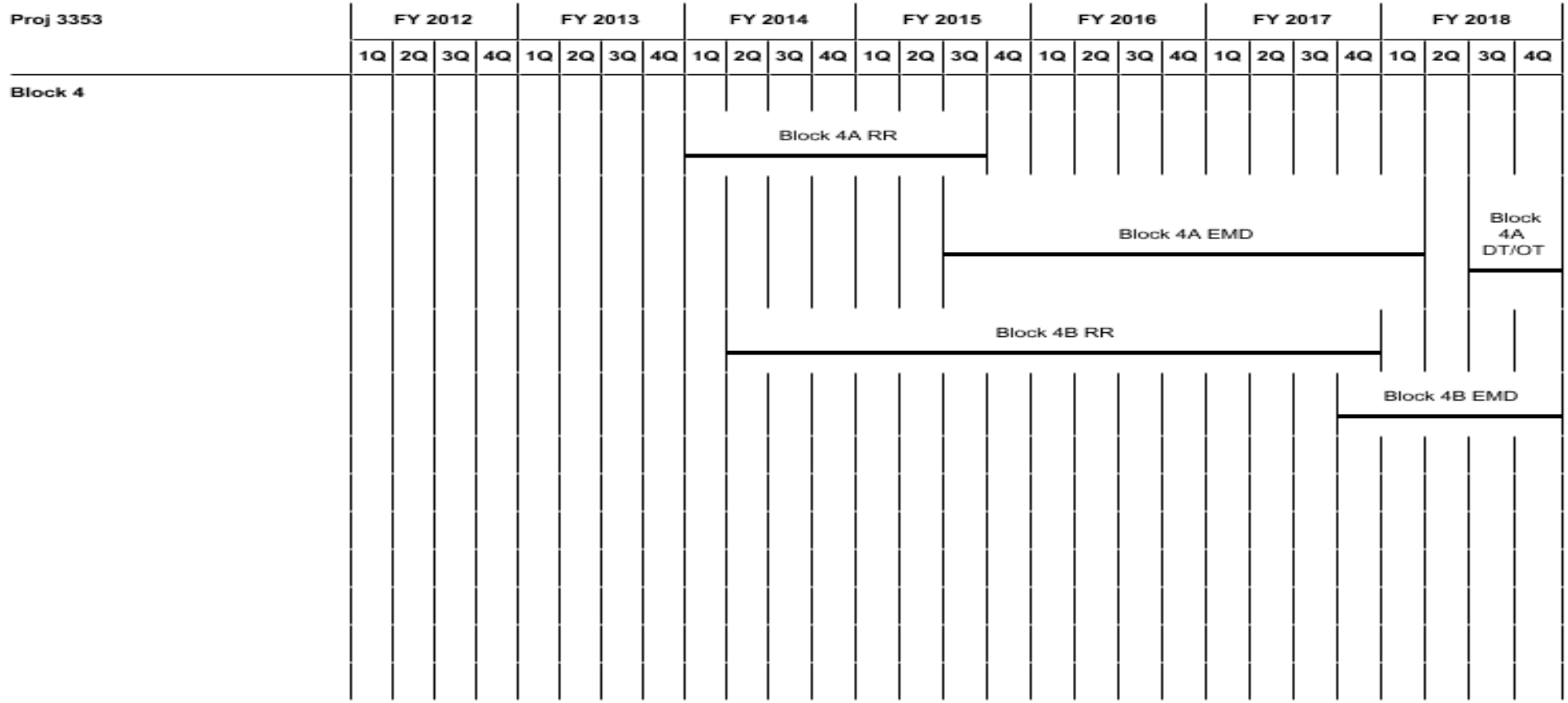
D&S Includes:
USAF PE 0604800F BPAC 653832
USN PE 0604800N Project Unit 3352
USMC PE 0604800M Project Unit 3350

JSF FoD Includes:
USAF PE 0207142F BPAC 675346

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
USN PE 0608400N Project Unit 3353 USMC PE 0608400M Project Unit 3351 JSF Dual Capability Aircraft (DCA) Includes: USAF PE 0207142F BPAC 676011									

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*



2014PB - 0604800N - 3353

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604800N: *JT Strike Fighter (JSF) - EMD*	PROJECT 3353: *F-35C Follow-on Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 3353				
Block 4: Block 4A Risk Reduction	1	2014	3	2015
Block 4: Block 4A Engineering and Manufacturing Development	3	2015	1	2018
Block 4: Block 4A DT/OT	3	2018	4	2018
Block 4: Block 4B Risk Reduction	2	2014	4	2017
Block 4: Block 4B Risk Engineering and Manufacturing Development	4	2017	4	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0605013M: *Marine Corps IT Dev/Mod*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	62.381	19.080	12.143	5.564	-	5.564	5.663	6.219	6.240	5.640	Continuing	Continuing
2906: *Marine Corps IT*	62.381	19.080	12.143	5.564	-	5.564	5.663	6.219	6.240	5.640	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program establishes, sustains, and continuously refines computing platforms and Information Technology (IT) services as tested, certified and reusable components of a Marine Corps IT framework that spans the range of military operations.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	19.461	12.143	10.893	-	10.893
Current President's Budget	19.080	12.143	5.564	-	5.564
Total Adjustments	-0.381	0.000	-5.329	-	-5.329
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.381	0.000			
• Program Adjustments	0.000	0.000	-5.315	-	-5.315
• Rate/Misc Adjustments	0.000	0.000	-0.014	-	-0.014

Change Summary Explanation

The FY13 and FY14 RDT&E decreases reflect DoD wide cost reduction efforts for IT Efficiencies while continuing critical developments with a cost effective schedule.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
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COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2906: *Marine Corps IT*	62.381	19.080	12.143	5.564	-	5.564	5.663	6.219	6.240	5.640	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

DEFENSE MESSAGE SYSTEM (DMS) and follow-on/replacement systems, as directed by the Joint Staff and HQMC Command, Control, Communications and Computers (C4), meet the organizational messaging requirement for all classification levels from GENSER through Top Secret/Sensitive Compartmented Information (TS/SCI). Telos Automated Message Handling System (AMHS) is the current implementation that provides Web-interface for system administration and for user messaging (including readers). Organizational messages are used to direct and commit resources, provide user authentication, non-repudiation, confidentiality, and integrity. It also maintains an archive and retrospective search capability to the warfighter and requires security at the Class 4 level (currently implemented with Fortezza and Certificate Authority Workstations). The Defense Information Systems Agency (DISA) is the lead agency and Global System Manager (GSM) for DMS products. The Department of Defense Intelligence Information System (DODIIS) is the Operations Manager for the Intelligence Community (IC) to support TS/SCI messaging. Within the Marine Corps, there are two distinct acquisition efforts to field DMS to strategic and tactical communication centers to all classification levels. Additionally ongoing efforts at the service and DISA level to transition from the DMS system to alternative mechanisms for the transfer of organizational information. Authorized Acquisition Objective (AAO) 100. FY12 R&D for DMS will continue research and analysis through 2012 to assist in the transition to the next generation DMS occurring between FY12-15 in order to test and certify possible organizational messaging solutions/capabilities that are DISA compliant. FY14 DMS will continue to conduct research and analysis to assist in the transition to the next generation DMS occurring between FY12-15 in order to test and certify possible organizational messaging solutions/capabilities that are DISA compliant. Additionally, DMS will research the feasbility of the migrating all Marine Corps organizational messaging capabilities into MCEITS.

MARINE CORPS TRAINING INFORMATION MANAGEMENT SYSTEM (MCTIMS) replaced the mainframe program By Name Assignment, which managed all Marine Corps school seats and interfaced with other service's school seat management programs. MCTIMS is the Marine Corps' official program of record for training and education management and is the single data source which the Training and Education Command relies on to manage training personnel, training seats, students, and other training resources. MCTIMS is the enterprise application upon which standards based instruction, education, and training is built, delivered, tracked, and evaluated. MCTIMS is establishing the unit training management module for all ground forces. This module will provide commanders an enterprise level application, which brings standardization in planning and scheduling training, recording of training against units and individual Marines, provides training assessments and reports combat readiness to Department of Defense (DOD) systems. FY13 funding is planned for development of Calendar Based Scheduling Module. FY14 funding is planned for Development of Enhanced Registration capability of Marines/Students and a Prerequisite and Registration Screening Tool.

MANPOWER OPERATIONS SYSTEMS (MOS) is a portfolio of enterprise IT systems and modules that support manpower business operations for the Total Force (active and reserve). The investment in the portfolio improves dataflow and increases reliability, functionality, and accuracy of data while reducing the manpower

required to operate and maintain these systems/operations. Development is partially driven by regulatory and policy changes mandated by Congress, DOD, Department of the Navy (DON), and United States Marine Corps (USMC). These systems support all five tiers of Manpower: 1) Individual Marine, 2) Small Unit Leader; 3) Unit, 4) Installation Personnel Administration Center (IPAC)/Disbursing Echelon, and 5) Headquarters Marine Corps (HQMC) Manpower and Reserve Affairs (M&RA)/ Defense Finance and Accounting Service. The MOS portfolio provides support in functional areas such as permanent change of station assignments, retention, mobilization, manpower planning, line of duty determination, personnel accountability, individual augmentation, personnel records management and maintenance, management of case incidents, civilian professional development planning, pay entitlement determinations, promotion and performance evaluations and self service/visibility of personnel data. MOS programs interface with other systems to provide manpower data and web services functionality for pay and personnel transactions between systems. Systems in the portfolio include the Web-enabled Manpower Assignment Support System (WebMASS), Performance Evaluation System (PES), Total Force Retention System (TFRS), Optical Digital Imaging - Records Management System (ODI-RMS), Manpower Mobilization Assignment System (MMAS), and the Total Force Administration System (TFAS) (composed of the Secure Personnel Accountability (SPA) Module, and the Drill Management Module (DMM). No additional system development is anticipated in FY14.

MARINE CORPS ENTERPRISE INFORMATION TECHNOLOGY SERVICES (MCEITS) will provide an overarching portfolio of capabilities to deliver ""Power to the Edge"" for the Marine Corps. Born from an effort to establish a Continuity of Operations Plan of HQMC Automated Information Systems, MCEITS will realign the existing USMC environment of applications, databases, networks, and facilities into an integrated architecture of programs to deliver new information technology capabilities based on a common infrastructure and shared services. MCEITS is a unifying framework of both the Net-Centric Enterprise Services (NCES) to be delivered, and the infrastructure and systems which must be deployed to enable delivery of those services. Initially it will encompass the Operational, Technical, and Systems architectures of the garrison environment. However, ultimately it will extend to transform Command and Control (C2) both in garrison and in the deployed environment. Combined with policy, procedure and standards provided by HQMC (C4), MCEITS will allow for architectural standardization, consolidated management, and seamless interoperability of and access to the data residing in currently fielded applications (business and tactical). Testing efforts will be focused on MCEITS Portal and MCEITS provided services operating within a Service Oriented Architecture environment. MCEITS will ensure the ability to host services and applications in a Web Services enabled environment. MCEITS will also ensure NCES services are able to be federated throughout the Marine Corps to include Content Discover and Delivery, Collaboration and Text Chat, between the service consumer and provider. FY13 for MCEITS will focus on completion of Incremental II (provides high availability, disaster recovery, and operational continuity for USMC data systems) integration and testing in preparation for Full Operational Capability (FOC) in FY14 with continued Planned Product Improvements (P3I) efforts.

MANPOWER PLANNING SYSTEMS (MPS) is a portfolio consisting of two systems; the legacy Manpower Models and the Total Force Data Warehouse (TFDW). This portfolio provides the tools and data to support the creation of active and reserve modeling of accession, recruiting, training, classification, retention, promotion, mobilization, distribution, and assignment plans. The funding in MPS will provide the technical solution for process improvement and will strategically align manpower systems/functional process with the C4 architecture. MPS interfaces with other systems to utilize manpower data in model analysis and future year planning efforts. No additional system development is anticipated in FY14.

MARINE CORPS RECRUITING INFORMATION SUPPORT SYSTEM (MCRISS) is an enterprise level system to automate administrative procedures for the recruiting station operations. This customized automated System, centered on procedures in the Guidebook for Recruiters, Volume I, dramatically improves efficiency and effectiveness in Marine Corps recruiting. Furthermore, Military Entrance Processing Command requires Marine Corps recruiting to provide information in electronic

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format only. MCRISS is the Marine Corps Recruiting Command's program to manage applicant processing from commitment to accession/commission into the Marine Corps and Marine Corps Reserve. This enterprise approach allows for efficient sharing of information about potential recruits and recruiter screening efforts, yielding a more cost effective process. In FY13, funding supports development of the Recruiter Client Program. FY14 funding supports Design and development of Manning Level Structure Analysis Tool.

TOTAL FORCE STRUCTURE MANAGEMENT SYSTEM (TFSMS) is the Marine Corps authoritative data source for force structure data and provider of the Marine Corps Tables of Organization and Equipment. TFSMS defines present and future Marine Corps force structure, establishes the Marine Corps baseline for readiness reporting, justifies resource requirements and allocation and enables Marine Corps compliance with the Joint Staff and Office of the Secretary Defense initiative to standardize force structure representation by providing the Marine Corps Global Force Management (GFM) Organizational Server. Increment II development began in FY11 with the first major software release of Increment II to occur in FY12. The TFSMS Increment II Capability Development Document (CDD) defines the requirements and expectations for Initial Operational Capability (IOC) and Full Operational Capability (FOC). FOC is scheduled for FY16. FY12 R&D for TFSMS includes the first Increment II software release for the Systems Integration efforts, v3.0 released in 4th Qtr FY12 and second release of Increment II software is scheduled for 4th Qtr FY13 and additional GFM capabilities. System Integration efforts will continue. There is no RDTEN funding for this effort in FY13 and FY14.

DEFENSE READINESS REPORTING SYSTEM (DRRS-MC) is the next generation of Marine Corps authoritative system for force registration and readiness reporting. The DRRS-MC is a web-based and net-centric system providing readiness reporting via the NetUSR-MC (input) tool, enabling units to register and report their training, equipment (including Chemical, Biological, Radiological and Nuclear [CBRN]); personnel; missions and mission essential tasks (METs) readiness status. The Marine Readiness Management Output Tool (MRMOT) allows users to view current and historical readiness information using graphical user interface screens to efficiently display information. MRMOT is an executive information system in that it begins at a summary level and allows a "drill-down" capability to access detailed readiness information. FY12 - FY14 funding will also support the GFM Data Initiative to consume Force Structure from Marine Corps Org Server (MCOS); conduct mapping, link and maintain OUID and UIC relationships.

PAPERLESS OFFICE/ACQUISITION (PA) funding supports development and enhancement of Purchase Request (PR) Builder which is the Marine Corps enterprise solution for the electronic generation of purchase requests and serves as the front-end system for feeding the DOD enterprise contracting writing system SPS. Development and enhancement of PR Builder is required to ensure financial and contracting functional requirements and Marine Corps business processes are developed, designed, tested and implemented within the system. PR Builder is also undergoing requirements definition and estimation for v4.4. Once these requirements are delivered to the Program Manager (PM) from the service integrators, modifications to the contract to support the requirements will be initiated. Future DOD, DON, and USMC initiatives that will need to be researched and developed include support or adherence to: Standard Financial Information Structure, Financial Data in Procurement, UCore, Business Enterprise Architecture, USMC Financial Improvement Initiative, Naval Facilities Engineering Command to USMC contract/ obligation interface, Seaport-e to USMC contract/obligation interface.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: DEFENSE READINESS REPORTING SYSTEM-MARINE CORPS (DRRS-MC)	1.416	0.398	0.400
Articles:	0	0	0
Description:			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Continued Phase III development and enhancements, Testing with Joint Interoperability Test Command (JITC). ***FY 2013 Plans:*** Continue testing with JITC and Defense Information Systems Agency (DISA). ***FY 2014 Plans:*** Will continue testing with DISA and integration of Cross Domain Solution (CDS).			
Title: DEFENSE MESSAGE SYSTEM (DMS) ***Articles:*** ***Description:*** ***FY 2012 Accomplishments:*** Conducted research and analysis to assist in the transition to the next generation DMS occurring between FY12-15 in order to test and certify possible organizational messaging solutions/capabilities that are DISA compliant. ***FY 2013 Plans:*** DMS will continue to conduct research and analysis to assist in the transition to the next generation DMS occurring between FY12-15 in order to test and certify possible organizational messaging solutions/capabilities that are DISA compliant. ***FY 2014 Plans:*** DMS will continue to conduct research and analysis to assist in the transition to the next generation DMS occurring between FY12-15 in order to test and certify possible organizational messaging solutions/capabilities that are DISA compliant. Additionally, DMS will research the feasbility of the migrating all Marine Corps organizational messaging capabilities into MCEITS.	0.513 0	0.663 0	0.489 0
Title: MARINE CORPS TRAINING INFORMATION MANAGEMENT SYSTEM (MCTIMS) ***Articles:*** ***Description:*** ***FY 2013 Plans:*** Development of Calendar Based Scheduling Module. ***FY 2014 Plans:*** Development of Enhanced Registration capability of Marines/Students and a Prerequisite and Registration Screening Tool.	0.000	0.656 0	0.527 0
Title: MANPOWER OPERATIONS SYSTEMS (MOS) ***Articles:***	4.448 0	3.900 0	0.000

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: MASS reengineering development; DMM MCMEDS development; Continued DMM Reserve Transition and Manpower Management Systems (RTAMMS) requirements analysis, design and development; Paperless Forms Services requirements and design; MOS Oracle 11g upgrade. ***FY 2013 Plans:*** Continue DMM RTAMMS design and development as well as Paperless Forms Services development.			
Title: MARINE CORPS ENTERPRISE INFORMATION TECHNOLOGY SERVICES (MCEITS) ***Articles:*** ***Description:*** ***FY 2012 Accomplishments:*** Performed integration and testing of second Enterprise Information Technology Center (EITC) to provide high availability, disaster recovery, and operational continuity for USMC data systems in preparation for Full Operational Capability (FOC) with continued P3I efforts. ***FY 2013 Plans:*** Continue integration and testing of second Enterprise Information Technology Center (EITC) to provide high availability, disaster recovery, and operational continuity for USMC data systems in preparation for Full Operational Capability (FOC) with continued P3I efforts for Expeditionary and Distributed Platforms development and design. ***FY 2014 Plans:*** Continued P3I efforts for Expeditionary and Distributed Platforms development and design.	6.231 0	5.871 0	3.373 0
Title: PAPERLESS ACQUISITION (PA) ***Articles:*** ***Description:*** ***FY 2013 Plans:*** Research and development including support or adherence to: Standard Financial Information Structure, Financial Data in Procurement, Ucore, Business Enterprise Architecture, USMC Financial Improvement Initiative, Naval Facilities Engineering Command to USMC contract/obligation interface, Seaport-e to USMC contract/obligation interface.	0.000 0	0.508 0	0.000
Title: MARINE CORPS RECRUITING INFORMATION SUPPORT SYSTEM (MCRISS) ***Articles:***	1.304 0	0.147 0	0.775 0

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Description: ***FY 2012 Accomplishments:*** Performed design, development and implementation of Recruiter Client Program and MCRISS Training Site. ***FY 2013 Plans:*** Design, development and implementation of Mission Planning Tool. ***FY 2014 Plans:*** Design and development of Manning Level Structure Analysis Tool.			
Title: TOTAL FORCE STRUCTURE MANAGEMENT SYSTEM (TFSMS) ***Articles:*** ***Description:*** ***FY 2012 Accomplishments:*** Performed Increment II Release 1 development and deployment.	2.554 0	0.000	0.000
Title: MANPOWER PLANNING SYSTEM (MPS) ***Articles:*** ***Description:*** ***FY 2012 Accomplishments:*** Continued Legacy Models reengineering/modernization efforts; TFDW capability enhancements to include upgrade to Oracle 11g.	2.614 0	0.000	0.000
Accomplishments/Planned Programs Subtotals	19.080	12.143	5.564

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• PMC/463000-MCRISS: *Marine Corps Recruiting Information Support System (MCRISS)*	0.100	0.080	0.060		0.060	0.060	0.060	0.061	0.062	Continuing	Continuing
• RDTE/4043-TFSMS: *Total Force Structure Management System (TFSMS)*	0.000	0.000	0.035		0.035	0.215	0.000	0.000	0.000	Continuing	Continuing

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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• PMC/463000-DMS: *Defense Message System*	0.000	0.629	0.889		0.889	1.731	2.673	1.766	1.798	Continuing	Continuing
• PMC/463000-MOS: *Manpower Operations Systems*	0.183	0.000	0.000		0.000	0.000	0.186	0.000	0.000	Continuing	Continuing
• PMC/463000-MCEITS: *Marine Corps Enterprise IT Services*	34.696	22.412	25.834		25.834	10.387	11.500	11.920	12.135	Continuing	Continuing
• PMC/463000-PA: *Paperless Office/Acquisition*	0.000	0.000	0.250		0.250	0.000	0.123	0.000	0.123	Continuing	Continuing
• PMC/463000-TFSMS: *Total Force Structure Management System*	0.016	0.000	0.573		0.573	0.000	3.923	0.000	0.000	Continuing	Continuing
• PMC/461700-MOS: *Manpower Operations Systems*	2.640	1.156	0.775		0.775	1.444	1.004	1.039	1.058	0.000	9.116
• PMC/461700-TFSMS: *Total Force Structure Management System (TFSMS)*	4.388	0.000	0.647		0.647	0.000	0.000	0.000	0.000	0.000	5.035
• PMC/461700-DRRS: *Defense Readiness Reporting System (DRRS)*	0.120	0.053	0.153		0.153	0.000	0.000	0.000	0.000	0.000	0.326
• PMC/461700-MPS: *Manpower Planning Systems*	0.289	0.295	0.295		0.295	0.312	0.317	0.215	0.219	0.000	1.942
• PMC/463500-DMS: *Defense Message System*	2.200	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	2.200

Remarks

D. Acquisition Strategy

DEFENSE MESSAGE SYSTEM (DMS) is a Joint Acquisition Category (ACAT) IAM program. It is Assistant Secretary Defense Command, Control, Communication and Intelligence mandated. Each year the Joint Interoperability Test Command runs Operational Test (OT) assessments on DMS software versions and maintenance releases. Marine Corps participation is vital to ensuring that the implementation of DMS is interoperable with all DOD CINCs, services, and agencies. Furthermore, as follow-on organizational messaging solutions for DMS are being identified, materiel solution analysis activities will be conducted.

MARINE CORPS TRAINING INFORMATION SYSTEM (MCTIMS) will utilize an evolutionary strategy with incremental development methodology. MCTIMS is structured in a module format that allows for phasing of development without having to reengineer the entire system to add significant new capability. MCTIMS utilizes

a firm-fixed price contracting strategy to reduce risk to the government. MCTIMS is a fully integrated system, emphasizing code re-use between modules to reduce cost and improve program stability.

MANPOWER OPERATIONS SYSTEMS (MOS) within this portfolio follow an Evolutionary Acquisition (EA) approach: 1. Define, develop, and deliver an initial or "core" capability based on mature technology. 2. "Core" capability will be incrementally improved over an extended period of time. Incremental Development Model: 1. Iterative cycles of requirements definition, design, build and evaluation. The contracting strategy across the portfolio is to utilize competitive firm-fixed price contracts.

MARINE CORPS ENTERPRISE INFORMATION TECHNOLOGY SERVICES (MCEITS) will be implemented using an EA strategy. Two blocks of capability will be fielded with each block providing an operationally effective and suitable capability in the shortest time possible. The program will deliver an initial capability and continue integration and production of the system to provide full capability over time. The objective is to balance needs with available commercial and government solutions and resources, and to put capability into the hands of the users quickly. This strategy is supported by an Indefinite Delivery Indefinite Quantity contracting vehicle which will allow the contractor to provide the full range of capabilities, services and solutions necessary to satisfy the requirements through incremental implementation of technology, processes and capabilities. Capabilities will be incrementally provided through the use of individual task orders to ensure technology and services are inserted according to the overall program goals, user requirements and program schedule.

PAPERLESS ACQUISITION (PA) will use an incremental development methodology utilizing short development periods. The contracting strategy is to use a firm-fixed price contract to reduce risk to government, with additional capabilities defined by a Marine Corps Configuration Control Board and delivered to the service integrator as a modification to the contract. The delivery of small functional capabilities allows for measurable enhancements to the base system while keeping Post Deployment System Support costs relatively low.

MANPOWER PLANNING SYSTEMS (MPS) within this portfolio follow an Evolutionary Acquisition (EA) approach: 1. Define, develop, and deliver an initial or "core" capability based on mature technology. 2. "Core" capability will be incrementally improved over an extended period of time. Incremental Development Model: 1. Iterative cycles of requirements definition, design, build and evaluation. The contracting strategy across the portfolio is to utilize competitive firm-fixed price contracts.

MARINE CORPS RECRUITING INFORMATION SUPPORT SYSTEM (MCRISS) capitalizes on centrally located data with secure web and wireless web enabled entry. MCRISS utilizes a modular/incremental development to maintain system operability while providing continued development. Contracting strategy includes competitive firm-fixed price contracts.

TOTAL FORCE STRUCTURE MANAGEMENT SYSTEMS (TFSMS) is an EA program currently comprised of two blocks/increments. TFSMS is a web-based application built upon an Oracle/Cognos infrastructure and currently residing on the G-6 Data Center in Marine Corps Base, Quantico. TFSMS currently has over 14,000 users. Block 1 is defined by a Capabilities Production Document (CPD) that was approved by the Marine Corps Requirements Oversight Council (MROC) 9 Apr 08. TFSMS Block 1 Full Operational Capability (FOC) was met by completing development, testing and fielding of a transactional user web-based training capability to replace the current interim Instructor-led training which consists of a two-day Equipment Class and a two-day Structure Class taught locally twice each month. Increment II CDD was approved by the MROC 20 Nov 2009 (DM 07-2010). CPD approved by MROC on 3 Jul 2012 (DM 51-2012). Increment II capabilities

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include civilian billets, improved AAO calculations and fielding plan capability providing the Marine Corps with the ability to have a consolidated force structure picture. Increment II FOC is scheduled for FY16.

DEFENSE READINESS REPORTING SYSTEM -MARINE CORPS (DRRS-MC) will use an EA strategy. DRRS-MC will consist of three phases: 1. Provide basic readiness reporting capabilities for both the input tool and output tool 2. Provide for auto-population and enhanced trending capabilities. 3. Additional system interfaces and a cross-domain solution. The DRRS-MC software architecture is based on commercial products used throughout Government and Industry. The supporting products, underlying technologies and technical skills are not unique and are readily available. There are no limitations within industry to prevent any interested sources from submitting a proposal. Many of the corporations providing enterprise solutions to the USMC, DON and DoD are potential sources as the DRRS-MC Systems Integrator.

E. Performance Metrics

Milestone Reviews

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MCEITS PM TASK	C/IDIQ	GD:Needham, MA	10.700	0.000		0.000		0.000		-		0.000	0.000	10.700	
TFSMS -Dev	C/FPIF	SAIC:McLean, VA	15.357	1.403	Jan 2013	0.000		0.000		-		0.000	0.000	16.760	
DRRS - Sys Integrator Dev	C/FPIF	SAIC:Dumfries, VA	0.000	0.793	Aug 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
MCRISS Dev Task	C/FP	CGI:Arlington, VA	2.666	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
MOS App Dev Efforts	C/FP	Various:Various	3.736	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
MCEITS P3I Tasks	C/IDIQ	GD/GSA:Needham, MA/Kansas City MO	0.000	3.055	Jul 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
MCEITS P3I Tasks	C/IDIQ	SAIC:McLean VA	0.000	0.000		3.288	Jul 2013	2.000	Jun 2014	-		2.000	Continuing	Continuing	Continuing
MCEITS Distributed Eng Dev	WR	SPAWAR:Charleston SC	0.000	1.381	Apr 2012	0.927	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
Paperless Ofc Acq Dev	C/FFP	Deloitte:Alexandria, VA	0.000	0.000		0.508	Aug 2013	0.000		-		0.000	Continuing	Continuing	Continuing
MCTIMS Calendar Based Scheduling Module	C/FP	TBD:TBD	0.000	0.000		0.656	Apr 2013	0.000		-		0.000	0.000	0.656	
MOS MASS Reengineering	C/FP	InfoReliance:Fairfax VA	1.929	0.303	Jul 2012	0.000		0.000		-		0.000	0.000	2.232	
MOS DMM MCMEDS Development	C/FP	InfoReliance:Fairfax VA	0.536	0.000		0.000		0.000		-		0.000	0.000	0.536	
MOS DMM RTAMMRS Development	C/FP	InfoReliance:Fairfax VA	0.000	0.873	May 2012	0.945	Mar 2013	0.000		-		0.000	0.000	1.818	
MOS SURVIAC Requirements Contract	C/FP	TBD:TBD	0.000	1.500	Jul 2013	0.000		0.000		-		0.000	0.000	1.500	
MOS SPA enhancements/ NIPR Instance	C/FP	InfoReliance:Fairfax VA	0.000	1.772	Jul 2013	0.000		0.000		-		0.000	0.000	1.772	
MPS TFDW Upgrade	C/FP	TBD:TBD	0.000	0.300	Sep 2013	0.000		0.000		-		0.000	0.000	0.300	
MPS Legacy Models Modernization	C/FP	TBD:TBD	0.667	1.608	Sep 2013	0.000		0.000		-		0.000	0.000	2.275	
MCRISS Training Site Development	C/FP	TBD:TBD	0.217	0.650	Apr 2013	0.000		0.000		-		0.000	0.000	0.867	
MCRISS Recruiter Client Development	C/FP	TBD:TBD	0.000	0.654	Apr 2013	0.000		0.000		-		0.000	0.000	0.654	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013M: *Marine Corps IT Dev/Mod*	PROJECT 2906: *Marine Corps IT*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DMS	C/FFP	TBD:TBD	0.000	0.323	Jun 2013	0.000		0.259	Dec 2013	-		0.259	0.000	0.582	
MCRISS Mission Planning Tool	C/FP	TBD:TBD	0.000	0.000		0.147	Apr 2013	0.000		-		0.000	0.000	0.147	
MOS Service Oriented Architecture Prototype Development	C/FFP	TBD:TBD	0.000	0.000		2.955	Aug 2014	0.000		-		0.000	0.000	2.955	
MCTIMS Enhanced Registration of Marines/ Students	C/FP	TBD:TBD	0.000	0.000		0.000		0.527	Feb 2014	-		0.527	0.000	0.527	
DRRS-MC New Dev Int of DMS	C/FPIF	TBD:TBD	0.000	0.000		0.173	Jun 2013	0.000		-		0.000	0.000	0.173	
MCRISS Manning Level Structure Analysis Tool	C/FP	TBD:TBD	0.000	0.000		0.000		0.775	Apr 2014	-		0.775	0.000	0.775	
DRRS-MC Systems Integrator	C/FPIF	SAIC:Dumfries, VA	0.000	0.322	Mar 2012	0.000		0.000		-		0.000	0.000	0.322	
		Subtotal	35.808	14.937		9.599		3.561		0.000		3.561			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MCEITS RDT&E Management	C/FP	Jacobs:Dumfries, VA	6.474	0.000		0.000		0.000		-		0.000	0.000	6.474	
Various	Various	Various:Various	10.239	0.000		0.000		0.000		-		0.000	0.000	10.239	
MPS	C/FP	SPAWAR:Charleston SC	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	
DMS Materiel Decision Development Support	C/FFP	CASK:Stafford VA	0.000	0.188	Dec 2011	0.660	Dec 2012	0.000		-		0.000	0.000	0.848	
TFSMS HSI Support	WR	NSWC:Dahlgren VA	0.000	0.100	Dec 2011	0.000		0.000		-		0.000	0.000	0.100	
DMS MCEITS Migration Study	C/FFP	TBD:TBD	0.000	0.000		0.000		0.225	Dec 2013	-		0.225	0.000	0.225	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013M: *Marine Corps IT Dev/Mod*	PROJECT 2906: *Marine Corps IT*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
TFSMS Support	C/FFP	Information Network Sys:Cherry Hill, NJ	1.745	0.496	Jun 2012	0.000		0.000		-		0.000	0.000	2.241	
TFSMS Support	C/FFP	Information Newtork Sys:Cherry Hill, NJ	0.000	0.916	Jun 2013	0.000		0.000		-		0.000	0.000	0.916	
DRRS Program Support	C/FFP	Information Network Sys:Cherry Hill, NJ	0.000	0.180	Jun 2012	0.000		0.000		-		0.000	0.000	0.180	
		Subtotal	18.658	1.880		0.660		0.225		0.000		0.225	0.000	21.423	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MCEITS	Various	Various:Not Specified	7.915	1.292	Feb 2012	1.138	Feb 2013	0.775	Feb 2014	-		0.775	Continuing	Continuing	Continuing
DMS JITC PRT Dues	C/FFP	DISA:Baltimore MD	0.000	0.002	Dec 2011	0.003	Dec 2012	0.005	Dec 2013	-		0.005	Continuing	Continuing	Continuing
DRRS-MC JITC IV&V testing	MIPR	JITC:Quantico VA/ Baltimore MD	0.000	0.050	Jun 2012	0.100	Jan 2013	0.100	Jul 2014	-		0.100	Continuing	Continuing	Continuing
TFSMS MCOTEA/JITC IV&V testing	MIPR	MCOTEA/ JITC:Quantico VA/ Baltimore MD	0.000	0.190	Mar 2013	0.000		0.000		-		0.000	0.000	0.190	
DRRS-MC DISA testing	MIPR	DISA:Baltimore MD	0.000	0.000		0.125	Apr 2013	0.300	Mar 2014	-		0.300	0.000	0.425	
DRRS-MC IV&V	C/FFP	CASK Tech:San Diego, CA	0.000	0.046	Sep 2012	0.000		0.000		-		0.000	0.000	0.046	
MCEITS Modeling & Simulation	C/FFP	TSC:Silver Spring MD	0.000	0.503	Aug 2012	0.518	Aug 2013	0.598	Aug 2014	-		0.598	Continuing	Continuing	Continuing
DRRS-MC JITC IV&V Testing	MIPR	DISA:Baltimore, MD	0.000	0.025	Sep 2012	0.000		0.000		-		0.000	0.000	0.025	
TFSMS MCOTEA/JITC	MIPR	MCOTEA/ JITC:Quantico VA/ Baltimore MD	0.000	0.155	Jan 2012	0.000		0.000		-		0.000	0.000	0.155	
		Subtotal	7.915	2.263		1.884		1.778		0.000		1.778			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013M: *Marine Corps IT Dev/Mod*	PROJECT 2906: *Marine Corps IT*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	62.381	19.080		12.143		5.564		0.000		5.564			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013M: *Marine Corps IT Dev/Mod*	PROJECT 2906: *Marine Corps IT*

MCEITS Program Schedule

PE 0605013M, MCPC 500306

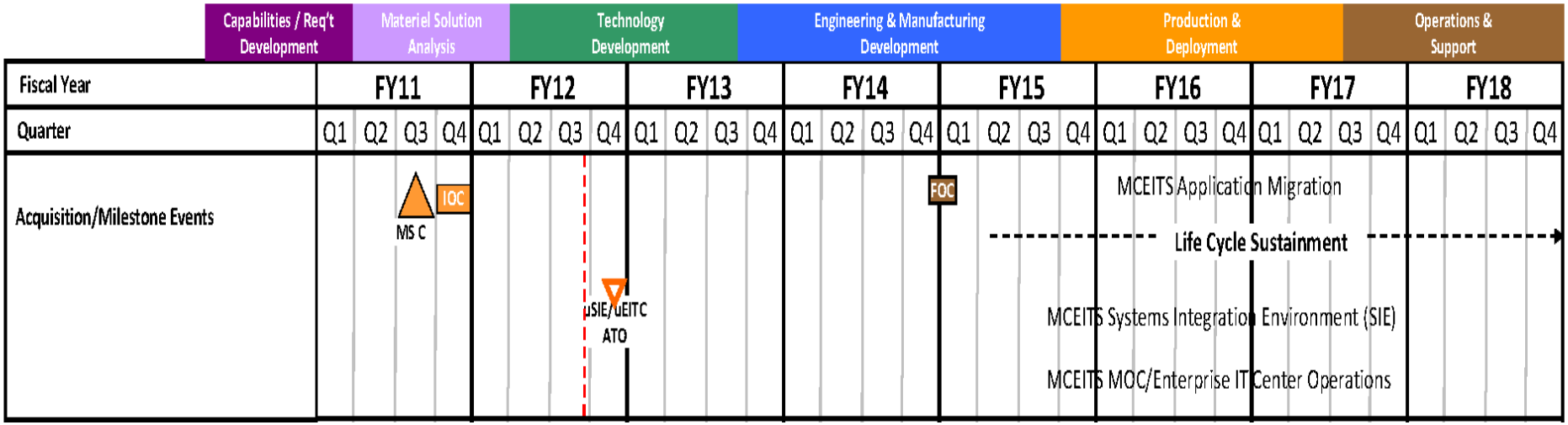


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013M: *Marine Corps IT Dev/Mod*	**PROJECT** 2906: *Marine Corps IT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2906				
Increment 1 Full Operational Capability (FOC) (MCEITS)	4	2014	4	2014

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	93.121	28.919	72.209	69.659	-	69.659	56.049	50.871	46.919	45.739	Continuing	Continuing
2901.: *AAUSN IT*	3.272	3.528	10.315	17.569	-	17.569	1.147	1.170	1.190	1.211	Continuing	Continuing
2903: *NAVAIR IT*	0.000	0.712	0.717	0.687	-	0.687	0.702	0.708	0.723	0.736	Continuing	Continuing
2904: *NAVSEA IT*	81.553	2.911	18.047	15.384	-	15.384	21.637	20.147	20.411	20.731	Continuing	Continuing
2905: *BUPERS IT*	0.500	11.715	31.743	21.392	-	21.392	17.911	13.513	8.491	8.721	Continuing	Continuing
3026: *ERP Convergence*	0.000	0.500	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.500
3167: *Joint Technical Data Integration (JTDI)*	7.796	4.159	8.524	4.996	-	4.996	5.405	5.091	5.386	5.478	Continuing	Continuing
3185: *Joint Airlift Information System (JALIS)*	0.000	0.409	0.377	0.370	-	0.370	0.379	0.386	0.392	0.399	Continuing	Continuing
9406: *Maintenance Data Warehouse*	0.000	4.985	2.486	9.261	-	9.261	8.868	9.856	10.326	8.463	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

2901 AAUSN IT - The NCIS Modernization Initiative includes multiple projects with RDT&E requirements: Multiple Threat Alert Center (MTAC), Data Modernization & Analytical Tools, Knowledge Network (K-Net), Consolidated Law Enforcement Operations Center (CLEOC), Enterprise Procurement System (EPS), and Department of the Navy Criminal Justice Information System (DONCJIS).

2901 BSO 39 - NAVAL JUSTICE INFORMATION SYSTEM (NJIS): This system provides single authoritative case management information technology capability that provides end-to-end visibility into the Department of Navy (DON) criminal activity case load while reducing cost and increasing efficiency by replacing legacy systems. Funding is required for contractor support to develop, integrate, test, train, deploy, and implement this system.

Multiple Threat Alert Center (MTAC): The Post-Cole Secretary of the Navy Anti-terrorism/Force Protection Task Force identified the need for NCIS to enhance the Multiple Threat Alert Center (MTAC). The MTAC provides key anti-terrorism/force protection products in response to Fleet tasking and is critical to Fleet protection during current Overseas Contingency Operations (OCO). This project provides funding for the development of an IT system to track the movement of NCIS special agents deployed in advance of DoN in-transit units. The ability to track and communicate with these agents is necessary in order to forward threat data to those forward deployed agents and to task them to respond to emerging threats. Funding is required for equipment and contractor support to modify COTS software.

Data Modernization & Analytical Tools: NCIS data collection, filtering, and analysis infrastructure is unable to handle the increased flow of terrorism investigative and threat reporting of the Post 9/11 era. NCIS must revitalize its infrastructure and its data and investigation management capabilities to effectively counter current terrorist threats. The three main components of this portfolio investment are data modernization, knowledge management, and investigation management.

Knowledge Network (K-Net): K-Net is a Data Modernization & analytical tool being developed and soon deployed that greatly enhances NCIS's technological arsenal. K-Net implements an integrated NCIS approach for identifying, capturing, evaluating, retrieving, and sharing all of NCIS's knowledge and expertise. To that end, K-Net is a knowledge management system that improves NCIS's ability to search, analyze, fuse, and distribute both national intelligence and law enforcement information. The envisioned end state for K-Net is a secure, intuitive, web environment that is the one stop shop where applications, data, and tools are easily accessible to all of NCIS users to effectively and securely fulfill their mission regardless of when and where they operate.

Consolidated Law Enforcement Operations Center (CLEOC): The Naval Criminal Investigative Service (NCIS) enhancement of CLEOC will enable meeting Law Enforcement (LE) reporting requirements, satisfy Congressional mandates for the Defense Incident-Based Reporting System (DIBRS) and improve functionality across the Naval criminal justice community.

Enterprise Procurement System (EPS): EPS will replace the Standard Procurement System (SPS). Program Executive Office/Enterprise Information Systems (PEO/EIS) will act as the Program Manager. EPS will be modular, web based and built in a Service Oriented Architecture.

Department of the Navy Criminal Justice Information System (DONCJIS): The Naval Criminal Investigative Service (NCIS) is the Executive Agent (EA) for the Department of the Navy Criminal Justice Information System (DONCJIS). This system provides a cradle to grave criminal justice and law enforcement information system. The system enables multiple communities within the DON to share criminal justice and law enforcement information. Funding is required for contractor support to develop, test, train, deploy and implement this application.

2903 NAVAIR IT - CMIS: The Configuration Management Information System (CMIS) Program is DoD's standard software system for complete and integrated configuration management (CM) of weapon systems from acquisition to disposal. CMIS efficiently manages all product structure data, including complex interrelationship between assemblies and subassemblies, technical documentation and the parts that comprise the item. CMIS is designed to manage and control configuration data to support the DoD business processes. Accurate, complete and accessible configuration data is critical to the successful operations of DoD weapon systems or tracked assets. Mission readiness and operational capabilities are enhanced by CMIS, as instant consistent integrated configuration data is readily available to operators, maintainers and logistics personnel. This system is a CM tool available DoD wide to support all potential customers. CMIS provides users with a common database infrastructure to ensure compatibility, quality, and consistency of CM processes and provides configuration managers and analysts the validated CM information necessary for accurate maintenance, spare procurements, reliability and safety analysis, and mission readiness. Funding is budgeted to support the services of rehosting and testing of COTS upgrades to ensure objective performance of CMIS is achieved.

2904 NAVSEA IT - This program includes the funding for Information Technology (IT) support at NAVSEA, managed by the SEA 04 Ship Maintenance and Logistics Information Systems (SMLIS) Program Management Office (PMO-IT), for the support of maritime maintenance and includes multiple modernization efforts to insure effectiveness of Fleet maintenance systems. These efforts include retirement and/or replacement of costly legacy systems, transition planning and systems

engineering for integration with national and enterprise interim and future solutions. It includes the technical refresh of Naval Shipyard maintenance, repair and overhaul (MRO) production tools. This includes modifications/enhancements to Shipyard IT systems, such as Advanced Industrial Management (AIM); AIM Express (Xp); Project Scheduling and Sequencing (PSS); Performance Measurement & Control (PMC); and Navy Workload and Performance System (NWPS). This program also supports development and modernization of Shipyard HQ tools and other new start technologies/systems. The goal of this program is to provide modernization, migration, and consolidation of obsolete legacy systems to the next generation of centrally hosted tools supporting MRO of the Fleet force assets and national systems. This funding also supports development and modification to existing software, hardware, contractual program management and technical support to modify/enhance the NAVSEA HQ systems and infrastructure.

2905 BUPERS IT - The Navy has developed a new strategy on the modernization of integrated personnel and pay systems. This transfer realigns the funds to the responsible organization required to execute the strategy approved by the DON Executive Advisory Board (EAB) in July, 2011. This strategy includes Business Process Re-engineering (BPR) defined requirements, modernization/risk reduction of current personnel/pay systems centered around the Navy's Standard Integrated Personnel System (NSIPS), and development of a future pay engine. All of these efforts are allied with the Navy's Integrated Personnel and Pay Strategy (IPPS-N) CONOPS (Concept of Operations)

3167 Joint Technical Data Integration (JTDI) Program - Funding supports the evaluation, testing and integration to develop a JTDI Commercial-Off-The-Shelf (COTS) solution for installation on a Carrier (CV) and Amphibious Assault (L) class ships and up to 104 Navy/Marine Corp aviation activities. JTDI is a digital technical data access, delivery and local O&I level library management toolset and telemaintenance collaboration process enabler. It improves accuracy and timeliness of technical manual and other technical data delivery and minimizes the Fleet's library management burden. JTDI reduces maintenance work hours with saving Return on Investment (ROI) of 2.5:1. It facilitates the transition of the Joint Distance Support and Response (JDSR) Advanced Concept Technology Demonstration (ACTD) for telemaintenance and provides for process efficiencies to support ongoing Aviation Fleet Technical Representative reductions. Marine Aviation Logistics Support Program II (MALSP II) Expeditionary Pack up Kit (EPUK): Funding supports the evaluation, development, testing and integration of software and hardware solutions for expeditionary requisitioning and supply chain management across all US Marine Corp Aviation activities. Marine Aviation Logistics is changing to MALSP II to meet current and future operational requirements - in support of the NAE Strategic Plan, Marine Corps Vision & Strategy 2025, and the USMC Long War Concept. MALSP II will allow aviation logisticians to decrease total infrastructure and resource inventories forward by moving the preponderance of the Maintenance and Supply workload to the CONUS Parent MALS, and reducing the total forward Aviation Logistics footprint (personnel, equipment, facilities and spares). EPUK, as part of Marine Aviation Logistics Enterprise IT (MAL-EIT) system, is an automated wireless hardware / software solution that is a key enabler in integrating US Marine Corp Aviation Combat Element (ACE) and Logistics Combat Element (LCE) logistics systems to make the Marine Air Ground Task Force (MAGTF) more responsive, agile, flexible and lethal with the ability to support and sustain operations in austere expeditionary environments and across the Range of Military Operations (ROMO).

3185 Joint Air Logistic Information System (JALIS) - A critical element of the DoD CONUS and OCONUS Air Logistics assets. JALIS is an operational scheduling, aircraft management, and data analysis system that allows DoD organizations to submit airlift requirements for passengers and cargo; air logistics flying units to communicate their aircraft availability in a real time graphic display; and designated scheduling organizations to compare airlift requirements to available aircraft and create mission assignments.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*

9406 Maintenance Data Warehouse/NAVAIR DECKPLATE - The development of the Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) program is the next generation data warehouse for aircraft maintenance, flight and usage data. It provides a web-based interface to a single source of information currently being stored in multiple Naval Aviation Logistics Data Analysis (NALDA) systems. Through the use of analysis, query and reporting tools the user has the capabilities to effectively obtain readiness data in a near real-time environment, as well as historical data for trend analysis and records reconstruction. DECKPLATE supports the mission of the warfighter who requires a single source of near real-time aviation data in which to base critical readiness decisions. This requires collecting data from authoritative sources into a data warehouse. Because the warfighter only needs to access one database, the time consuming task of collecting various pieces of data form various sources will be reduced and ultimately eliminated. This improves data quality because it reduces the possibility of two systems providing identical data elements, but slightly different data. Data availability is improved through continuous near real-time feeds from the data sources, giving the warfighter the most current information to base decisions. In addition, this also accomplishes a reduction in legacy systems mandated by OPNAV. JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	29.760	72.209	69.923	-	69.923
Current President's Budget	28.919	72.209	69.659	-	69.659
Total Adjustments	-0.841	0.000	-0.264	-	-0.264
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.073	0.000			
• SBIR/STTR Transfer	-0.768	0.000			
• Program Adjustments	0.000	0.000	-2.256	-	-2.256
• Rate/Misc Adjustments	0.000	0.000	1.992	-	1.992

Change Summary Explanation

Technical: Not applicable.

Schedule Changes: 3167, Joint Technical Data Integration:
Due to Information Assurance (IA) requirements, Release Titles for JTDI have been changed on the R-4 and R-4a.

Schedule Changes: 3167, Marine Aviation Logistics Support Program II (MALSP II) Expeditionary Pack up Kit (EPUK):
Due to delay in obtaining Internal Review Board Certification, acquisition schedule and milestones have changed. Titles on the R-4 and R-4a have also changed due to DCA Policy Letter Revision A to MALSP II IOC Requirement dated 10 April 2012 stating title should be MAL-EIT.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*

Schedule Changes: PU 9406, Maintenance Data Warehouse:
Due to Maintenance Data Warehouse/NAVAIR Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) being a new start in FY12 and CRA lasting until January 2012, the contract award has been moved from first quarter to second quarter on the R-4 and R-4a.

2901 BSO 39 - NAVAL JUSTICE INFORMATION SYSTEM (NJIS): SRB-14 submission has requested an increase in the FY14 RDT&E funding from $1.580M to $8.840M. The increase in RDT&E funding was offset by a decrease in FY14 OPN funding.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2901.: *AAUSN IT*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2901.: *AAUSN IT*	3.272	3.528	10.315	17.569	-	17.569	1.147	1.170	1.190	1.211	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

DATA MODERNIZATION & ANALYTICAL TOOLS: NCIS data collection, filtering, and analysis infrastructure is unable to handle the increased flow of terrorism investigative and threat reporting of the Post 9/11-Global War on Terrorism era. NCIS must revitalize its infrastructure and its data and investigation management capabilities to effectively counter current terrorist threats. This program provides modernization funding for Enterprise Networks and Desktops/Laptops, data modernization and analytical tools, Local Area Network (LAN) specific connectivity and contract support on data collections and analytical integration. The three main components of this portfolio investment are data modernization, knowledge management, and investigation management.

DEPARTMENT OF THE NAVY CRIMINAL JUSTICE INFORMATION SYSTEM (DONCJIS): The Naval Criminal Investigative Service (NCIS) is the Executive Agent (EA) for the Department of the Navy Criminal Justice Information System (DONCJIS). This system provides a cradle to grave criminal justice and law enforcement information system. The system enables multiple communities within the DON to share criminal justice and law enforcement information. Funding is required for contractor support to develop, test, train, deploy and implement this application.

CONSOLIDATED LAW ENFORCEMENT OPERATIONS CENTER (CLEOC): The Naval Criminal Investigative Service (NCIS) enhancement of CLEOC will enable meeting Law Enforcement (LE) reporting requirements, satisfy Congressional mandates for the Defense Incident-Based Reporting System (DIBRS) and improve functionality across the Naval criminal justice community.

ENTERPRISE PROCUREMENT SYSTEM (EPS): EPS will replace the Standard Procurement System (SPS). Program Executive Office/Enterprise Information Systems (PEO/EIS) will act as the Program Manager. EPS will be modular, web based and built in a Service Oriented Architecture.
NAVAL JUSTICE INFORMATION SYSTEM (NJIS): The system provides enterprise and process-wide visibility into the DON's unclassified criminal incident and case data throughout the lifecycle of the case, while reducing costs and increasing efficiency by replacing legacy systems. NJIS will serve as a single, authoritative data source and repository, allowing for information sharing across the entire DON criminal justice communities.
The system will also comply with statutory requirements that mandate that the DON populate the Department of Defense's (DoD) crime database - the Defense Incident-Based Reporting System (DIBRS). It is DoD policy that DoD Components comply with the crime reporting requirements of the Uniform Federal Crime Reporting Act of 1988 (28 U.S.C. 534 note); for victim and witness assistance notifications of the Victim's Rights and Restitution Act of 1990 (42 U.S.C. 10601 et seq.); and the Brady Handgun Violence Prevention Act (18 U.S.C. 922 note).
Funding is required for contractor support to develop, integrate, test, train, deploy, and implement the system.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2901.: *AAUSN IT*

DON TRACKER: Department of the Navy Tasking, Records and Consolidated Knowledge Enterprise Repository (DON TRACKER, formerly known as Enterprise Records and Task Management (ERTM)) is a single, auditable, compliant Records and Task Management process, implemented uniformly across all DON Divisions and Commands, and administered by DON/AA, to enable efficient and effective execution of Records Management (RM) and Task Management (TM) policy in compliance with statute. Funds will provide program management, development, integration, testing, training, change management, deployment and implementation of the system throughout the Department of Navy.

ENTERPRISE PROCUREMENT SYSTEM (EPS): Provide DoN Solution for Electronic Contract Writing replacing the existing Standard Procurement System (SPS) capability and deficiencies; align Contract Writing System (CWS) with Financial Management Office/Financial Improvement Project (FMO/FIP) goals for auditability; support strategic sourcing and seamless exchange of data; in addition to evolving to meet changing requirements. The improved capabilities will meet emerging data standards Procurement Data Standards/Procurement Request Data Standards (PDS/PRDS), in addition to complying with OSD Clause Logic Service. Program Executive Office Enterprise Information Systems (PEO EIS) is the lead Program Manager.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Modernization	2.445	0.110	0.000
Articles:	1	1	
Description: Prototype Phase completed. The initial development of "Threat Planner" (original Modernization portfolio) as well as subsequent spirals of K-Net capabilities, to include centralized database checks on individuals; and MTAC-related production and synthesis capabilities in support of Maritime Domain Awareness.			
FY 2012 Accomplishments: Continue in FY-2012 with the developmental efforts directed at emerging technologies in Data Collection and Knowledge Management with an emphasis on integrating them into the law enforcement and counter intelligence mission area of NCIS.			
FY 2013 Plans: Continue in FY-2012 with the developmental efforts directed at emerging technologies in Data Collection and Knowledge Management with an emphasis on integrating them into the law enforcement and counter intelligence mission area of NCIS.			
Title: Modernization - Secretariat	1.083	1.089	0.079
Articles:	0	0	0
Description: The Secretariat has numerous requirements to modernize several systems including financial management, naval records management, and portal applications. These systems will be updated from older technologies to include ADA programming language to Java and Oracle Client-Server to web based. These upgrades are necessary to continue functionality of systems which ensure timely, accurate and efficient operation of the Secretariat's mission.			
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Development will include the redesign of several systems utilizing the latest technology while incorporating user requirements, functionality, and a product that meets the need of the end user. ADA language conversion to allow interface with existing Department of the Navy (DON) electronic records management systems. ***FY 2013 Plans:*** Continue with the modernization of several systems within the Navy Secretariat. ***FY 2014 Plans:*** Development of approved systems within the Navy Secretariat to include platform and software version updates.			
Title: Consolidated Law Enforcement Center (CLEOC) ***Articles:*** ***FY 2013 Plans:*** N/A	0.000	0.500 0	0.000
Title: Enterprise Procurement System (EPS) ***Articles:*** ***FY 2013 Plans:*** Critical actions during FY 2013 for the EPS Program will include completion of the Analysis of Alternatives required under the Business Capability Lifecycle process. To the extent that the AoA leads to a development effort, that will begin in FY 2013.	0.000	6.650 0	0.000
Title: Naval Justice Information System (NJIS) ***Articles:*** ***FY 2013 Plans:*** In 3rd Quarter FY13, SPAWAR plans to release a Request For Proposal (RFP) for the development of NJIS, with a contract awarded in November 2013. FY13 RDT&E funding is required in order to perform risk reduction efforts that will ready the community environment, decrease the program's future risks, and will decrease required funding. ***FY 2014 Plans:*** A contract will be awarded in November 2013 for the development of NJIS. Development will include the modernization of Consolidated Law Enforcement Operations Center (CLEOC) to include all five DON criminal justice community requirements; utilizing the latest technology while incorporating user defined requirements, functionality, and a product that meets the needs of the end user. This will provide end-to-end visibility on all DON incidents and increase efficiency by automating the criminal justice communities business processes. In addition, it will ensure all eight Defense Incident Based Reporting System (DIBRS) segments are reported, as required by statute.	0.000	1.966 0	8.840 0
Title: DON TRACKER	0.000	0.000	2.000

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:			0
Description: SBIR contract award for Phases II and II.5 are expected to be funded with $1.5M SBIR funding in FY13. ***FY 2014 Plans:*** Following successful completion of Phases II and II.5, a contract will be awarded to the SBIR industry partner to fully realize the DON TRACKER materiel solution in Phase III. In parallel, organizational change management, along with requisite Department-wide policy changes will be promulgated to stakeholders and user communities to start system implementation rationalization and address training and system supportability.			
Title: Electronic Procurement System (EPS)	0.000	0.000	6.650
Articles:			0
FY 2014 Plans: Critical Actions for the EPS Program will include beginning the Development efforts resulting from the Analysis of Alternatives (AoA) (scheduled to be completed in FY13). Based upon the results of the AoA program documentation and acquisition efforts will be completed to support the current SPS sunset dates established by the Under Secretary of Defense for Acquisition, Technology & Logistics (USD(AT&L).			
Accomplishments/Planned Programs Subtotals	3.528	10.315	17.569

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

MODERNIZATION - Contract will be awarded under a competitive, all source, RFP. NO ACAT

DONCJIS has a requirement for a contractor to provide full life-cycle software development services (requirements analysis, project management and planning, design, development, testing, documentation, training, implementation, and post-implementation support). The selected contractor must have knowledge of the existing DoD Law Enforcement information systems pertinent to the task. They must also have the corporate experience and a staff of knowledgeable personnel to provide the required services. The task will be monitored by the Contracting Officer Representative (COR), who reviews technical data submissions, system deliverables, and invoices to ensure acceptable contractor performance and scheduled deliveries.

NJIS - Contract will be awarded under a competitive, all source RFP. AAP. NJIS has a requirement for a contractor to provide full life-cycle software development services (requirements analysis, project management and planning, design, development, testing, documentation, training, implementation, and post-implementation support). The selected contractor must have knowledge of the existing DoD Law Enforcement information systems pertinent to the task. They must also have the

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2901.: *AAUSN IT*

corporate experience and a staff of knowledgeable personnel to provide the required services. The task will be monitored by the Contracting Officer Representative (COR), who reviews technical data submissions, system deliverables, and invoices to ensure acceptable contractor performance and scheduled deliveries.

DON Tracker: Phase II and Phase II.5 are anticipated as $750K each (total $1.5M in FY13) and will be provided by SBIR. Phase III, FY14 effort is a $3.1M effort, provided by DON/AA. It is anticipated that SBIR funding will be available in FY13 to meet the outlined schedule.

EPS - Depending upon the results of the AoA, the acquisition strategy will be developed. Any contracts will be competitive, all source RFP.

E. Performance Metrics

"Program cost, schedule and performance are measured using a systematic approach with approved programs and methods. The results of these measurements are presented to NCIS management through a governance review board process on a regular basis to determine program effectiveness and to provide new direction as needed to ensure the efficient use of
resources. To monitor and manage the execution of projects in addition to other IT investments, management and governance boards review metrics and key performance indicators that are outlined in various plans. Some of the plans that expound on the data captured to attribute to performance measures include: Project Management Plan, Risk Mitigation Plan, Communication Plan, Procurement Plan, and a Certification & Accreditation Plan.
Other specific performance measurements include:
1. Actual versus planned project scope
2. Actual versus planned time schedule
3. Actual versus planned costs
4. Actual versus planned risks and the mitigation of those risks
NJIS: Program cost, schedule and performance will be measured using a systematic approach with approved programs and methods. The results of these measurements are presented to PEO EIS / SPAWAR management through a governance review board process on a regular basis to determine program effectiveness and to provide new direction as needed to ensure the efficient use of resources. To monitor and manage the execution of projects in addition to other IT investments, management and governance boards review metrics and key performance indicators that are outlined in various plans. Some of the plans that expound on the data captured to attribute to performance measures include: Project Management Plan, Risk Mitigation Plan, Communication Plan, Procurement Plan, and a Certification & Accreditation Plan. Other specific performance measurements include:
1. Actual versus planned project scope
2. Actual versus planned time schedule
3. Actual versus planned costs
4. Actual versus planned risks

DON TRACKER: Funds will provide development of a SBIR proof of concept into a fully realized unified tasking and records management solution across the DON. Interface testing is required to validate and verify existing and developed interface design specifications and ensure compliance with applicable laws, regulations and policies. Organizational change management will feature heavily, including the rationalization of multiple (20+) disparate systems and/or redundant capabilities, and the disposition of multiple records pools.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2901.: *AAUSN IT*

EPS: Program cost, schedule and performance metrics will be determined after results of the AoA are completed and will be a systemic approach following the Business Case Lifecycle (BCL) process. The metrices will be presented and approved by all stakeholders. Key to success will be the scope of the requirements and how to leverage existing SPS data and processes. Key measures will include:

1. Actual versus planned project scope
2. Actual versus planned time schedule
3. Actual versus planned costs
4. Actual versus planned risks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2901.: *AAUSN IT*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development (Modernization)	C/FP	CACI:Chantilly, VA	2.000	2.445	Oct 2011	0.110	Oct 2012	0.000	Dec 2013	-		0.000	Continuing	Continuing	Continuing
Contractor Engineering Support (DONCJIS)	SS/T&M	Interimage Inc.:Manassas, VA	1.272	0.000		0.000		0.000		-		0.000	0.000	1.272	
Software Development	C/FP	TBD:TBD	0.000	1.083	Oct 2011	1.089	Oct 2012	0.079	Oct 2013	-		0.079	0.000	2.251	
Software Development (CLEOC)	C/FP	TBD:TBD	0.000	0.000		0.500	Oct 2012	0.000		-		0.000	0.000	0.500	
Software Development (EPS)	TBD	TBD:TBD	0.000	0.000		6.650	Oct 2012	0.000		-		0.000	0.000	6.650	
NJIS Software Developments	C/BA	SPAWAR HQ:San Diego	0.000	0.000		1.966	Oct 2012	8.840	Oct 2013	-		8.840	0.000	10.806	10.806
DON Tracker Engineering	C/BA	SPAWAR HQ:San Diego	0.000	0.000		0.000		2.000	Dec 2013	-		2.000	0.000	2.000	2.000
EPS Data Transition Strategy	TBD	NAVSUP BSC:Not Specified	0.000	0.000		0.000		0.800	Oct 2013	-		0.800	0.000	0.800	0.800
EPS AoA Solution	TBD	TBD:Not Specified	0.000	0.000		0.000		1.150	Oct 2013	-		1.150	0.000	1.150	1.150
		Subtotal	3.272	3.528		10.315		12.869		0.000		12.869			

Remarks

NJIS: Funding is required for the development, design, and testing In order to fully automate the DON criminal justice case data. In addition, there are requirements to interface with 16 DoD and DON systems. Integration testing is required to verify functional, performance, and reliability requirements of the various interfaces, including migrating the legacy data from existing systems.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Acquisition Strategy (EPS)	TBD	PEO EIS:Arlington, VA	0.000	0.000		0.000		0.300	Oct 2013	-		0.300	0.000	0.300	0.300
Cost Analysis (EPS)	TBD	TBD:Not Specified	0.000	0.000		0.000		0.200	Oct 2013	-		0.200	0.000	0.200	0.200

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2901.: *AAUSN IT*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering (EPS)	TBD	SSC LANT:Charleston, SC	0.000	0.000		0.000		0.450	Oct 2013	-		0.450	0.000	0.450	0.450
Logistics Analysis (EPS)	TBD	SSC LANT:Charleston, SC	0.000	0.000		0.000		0.450	Oct 2013	-		0.450	0.000	0.450	0.450
		Subtotal	0.000	0.000		0.000		1.400		0.000		1.400	0.000	1.400	1.400

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing Preparations (EPS)	TBD	TBD:Not Specified	0.000	0.000		0.000		2.500	Oct 2013	-		2.500	0.000	2.500	2.500
Test Site (EPS)	TBD	TBD:Not Specified	0.000	0.000		0.000		0.800	Oct 2013	-		0.800	0.000	0.800	0.800
		Subtotal	0.000	0.000		0.000		3.300		0.000		3.300	0.000	3.300	3.300

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.272	3.528		10.315		17.569		0.000		17.569			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 2901.: *AAUSN IT*

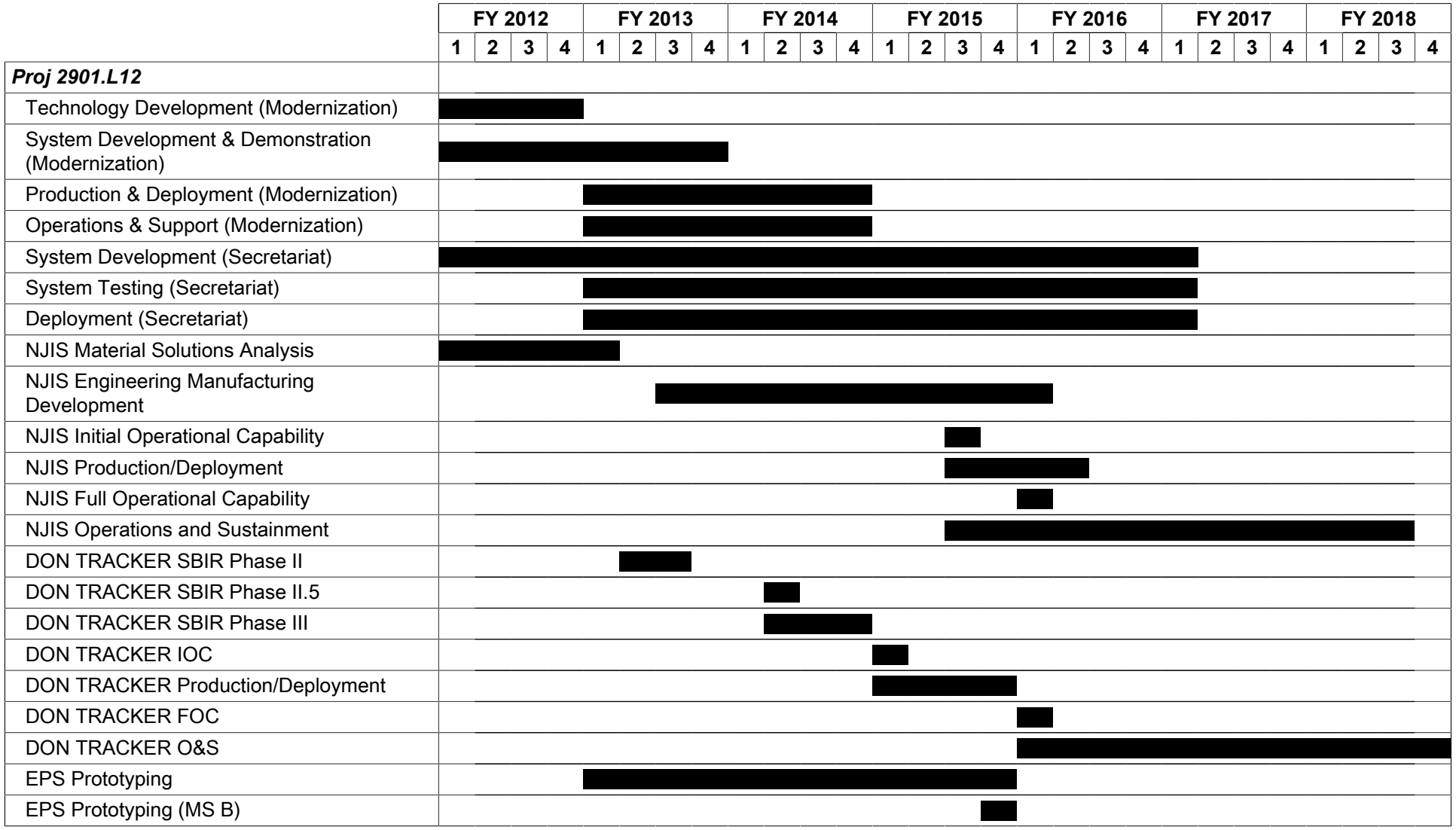


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2901.: *AAUSN IT*

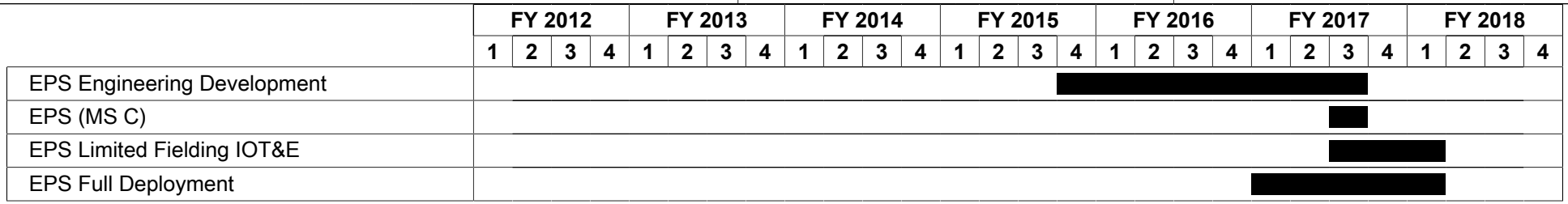


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 2901.: *AAUSN IT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2901.L12				
Technology Development (Modernization)	1	2012	4	2012
System Development & Demonstration (Modernization)	1	2012	4	2013
Production & Deployment (Modernization)	1	2013	4	2014
Operations & Support (Modernization)	1	2013	4	2014
System Development (Secretariat)	1	2012	1	2017
System Testing (Secretariat)	1	2013	1	2017
Deployment (Secretariat)	1	2013	1	2017
NJIS Material Solutions Analysis	1	2012	1	2013
NJIS Engineering Manufacturing Development	3	2013	1	2016
NJIS Initial Operational Capability	3	2015	3	2015
NJIS Production/Deployment	3	2015	2	2016
NJIS Full Operational Capability	1	2016	1	2016
NJIS Operations and Sustainment	3	2015	3	2018
DON TRACKER SBIR Phase II	2	2013	3	2013
DON TRACKER SBIR Phase II.5	2	2014	2	2014
DON TRACKER SBIR Phase III	2	2014	4	2014
DON TRACKER IOC	1	2015	1	2015
DON TRACKER Production/Deployment	1	2015	4	2015
DON TRACKER FOC	1	2016	1	2016
DON TRACKER O&S	1	2016	4	2018
EPS Prototyping	1	2013	4	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2901.: *AAUSN IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
EPS Prototyping (MS B)	4	2015	4	2015
EPS Engineering Development	4	2015	3	2017
EPS (MS C)	3	2017	3	2017
EPS Limited Fielding IOT&E	3	2017	1	2018
EPS Full Deployment	1	2017	1	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2903: *NAVAIR IT*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2903: *NAVAIR IT*	0.000	0.712	0.717	0.687	-	0.687	0.702	0.708	0.723	0.736	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Configuration Management Information System (CMIS) Program is DoD's standard software system for complete and integrated Configuration Management (CM) of weapon systems from acquisition to disposal. CMIS efficiently manages all product structure data, including complex interrelationship between assemblies and subassemblies, technical documentation and the parts that comprise the item. CMIS is designed to manage and control configuration data to support the DoD business processes. Accurate, complete and accessible configuration data is critical to the successful operations of DoD weapon systems or tracked assets. Mission readiness and operational capabilities are enhanced by CMIS, as instant consistent integrated configuration data is readily available to operators, maintainers and logistics personnel. This system is a CM tool available DoD wide to support all potential customers. CMIS provides users with a common database infrastructure to ensure compatibility, quality, and consistency of CM processes and provides configuration managers and analysts the validated CM information necessary for accurate maintenance, spare procurements, reliability and safety analysis, and mission readiness. Funding is budgeted to support the services of rehosting and testing of Commercial off-the-shelf (COTS) upgrades to ensure objective performance of CMIS is achieved.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: CMIS Annual Software Release	0.712	0.717	0.687
Articles:	0	0	0
FY 2012 Accomplishments: Re-baseline CMIS Software to upgrade to latest version of Oracle, incorporate development efforts associated with COTS obsolescence and evolve an open standard interface to other systems.			
FY 2013 Plans: Re-baseline CMIS Software to upgrade to latest version of Oracle, incorporate development efforts associated with COTS obsolescence and evolve an open standard interface to other systems.			
FY 2014 Plans: Re-baseline CMIS Software to upgrade to latest version of Oracle, incorporate development efforts associated with COTS obsolescence and evolve an open standard interface to other systems.			
Accomplishments/Planned Programs Subtotals	0.712	0.717	0.687

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2903: *NAVAIR IT*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Configuration Management Information System (CMIS) Program used Joint Logistics Systems Center (JLSC) funds to evolve CMIS to Software Release 5.0. In June 1998 CMIS was transferred to the Navy as executive agent and NAVAIR as program manager. Program Budget Decision 401 transferred joint funding from JLSC to NAVAIR to continue evolving CMIS. The CMIS Program Manager continues to evolve the program to keep pace with cost, Military Standards, and evolving commercial standards. Various contractors using competitively awarded contracts have supported the program. Currently, Intergraph Corporation is the CMIS integration contractor selected through a GSA contract.

E. Performance Metrics

CMIS - Milestone C Spiral Development:

1. During the life of the contract verify conformance with agency specific information processing standards and functional requirements. Prior to delivery of enhanced software, demonstrate the operational capability of the system software. Functionality of the software must meet required systems architecture and processing capabilities. All requirements mandated by law or regulation must be 100% compliant. Independent Verification and Validation will be used for testing new releases of software to determine that previous functionality is maintained. Customer satisfaction will be measured through limited validated customer complaints, feedback, and surveys.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2903: *NAVAIR IT*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Support	C/FFP	NAVSUP:Mechanicsburg, PA	0.000	0.552	Jan 2012	0.553	Jan 2013	0.521	Jan 2014	-		0.521	Continuing	Continuing	Continuing
		Subtotal	0.000	0.552		0.553		0.521		0.000		0.521			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Supt	WR	NAWCAD:Patuxent River, MD	0.000	0.160	Dec 2011	0.164	Dec 2012	0.166	Dec 2013	-		0.166	Continuing	Continuing	Continuing
		Subtotal	0.000	0.160		0.164		0.166		0.000		0.166			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.712		0.717		0.687		0.000		0.687			

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2904: *NAVSEA IT*	81.553	2.911	18.047	15.384	-	15.384	21.637	20.147	20.411	20.731	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program includes the funding for Information Technology (IT) support at NAVSEA managed by the NAVSEA 04 Ship Maintenance and Logistics Information Systems (SMLIS) Program Management Office (PMO-IT) for the support of maritime shore maintenance and includes multiple modernization efforts to insure effectiveness of Fleet maintenance systems. These efforts include retirement and/or replacement of costly legacy systems, transition planning and systems engineering for integration with national and enterprise interim and future solutions. These efforts align with direction to insure that proposed interim solutions support a planned single maintenance solution end state, as well as direction to align with data center consolidation plans proposed across the FYDP. It includes the modernization of Naval Shipyard and Regional Maintenance Centers' maintenance, repair and overhaul (MRO) production tools. This includes modifications/ enhancements to Shipyard IT systems, such as Advanced Industrial Management (AIM); Project Scheduling and Sequencing (PSS), Workload and Performance Systems; and other new start technologies/systems such as Electronic Technical Working Document (eTWD) Initiative. The goal of PMO-IT is to provide modernization, migration, and consolidation of obsolete legacy systems to the next generation of centrally hosted tools supporting Fleet Maintenance and national systems for the Navy.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: NAVSEA IT	2.911	18.047	15.384
Articles:	0	0	0
Description: This program includes the funding for Ship Maintenance Information Technology modernization at NAVSEA managed by the NAVSEA 04 Program Management Office (PMO-IT) for the support of maritime shore maintenance and includes multiple modernization efforts to insure effectiveness of Fleet maintenance systems. It includes the modernization of Naval Shipyard and Regional Maintenance Center (RMC) maintenance, repair and overhaul (MRO) production tools. This effort will allow Navy to realign functionality, consolidate systems and applications, and re-platform operations to facilitate a centrally hosted, net-centric maintenance solution suite.			
FY 2012 Accomplishments: The major accomplishment is the retirement of the costly NEMAIS system by deployment of AIM4RMCs.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Complete development of Electronic Technical Working Document (eTWD) Advanced Work Packages project and begin testing. ***FY 2014 Plans:*** Begin deployment of the eTWD solution.			
Accomplishments/Planned Programs Subtotals	2.911	18.047	15.384

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Navy information technology (IT) products have been supported by a variety of activities over time and have been developed, deployed and maintained using numerous toolsets and techniques. This non-centralized approach to development has made integration difficult and as a result, has reduced the functional benefits and cost savings that could be realized from common system standards; common processes; shared resources and infrastructure. Furthermore, the lack of standard development methodology and toolsets has increased the corporate sustainment support costs of these automated solutions. Consolidation of the management of these resources under the leadership of NAVSEA 04 PMO-IT at a corporate level has hastened IT system consolidation and supports efforts to further reduce information technology costs. Two key efficiencies from consolidation will be improved system performance at less cost, and consistent, standardized processes across the maritime shore maintenance community. NAVSEA 04 has established the Program Management Office for Information Technology (PMO-IT) to oversee IT development and sustainment efforts, and to acquire and manage IT resources to gain further efficiencies in the systems supporting the ship maintenance processes.

E. Performance Metrics

FY12 - Complete initial establishment of the Service Life Extension (SLE) environment.
FY13 - Continue development of electronic Technical Working Document (eTWD) project. Reduction in data centers in support of the Data Center Consolidation (DCC) initiative.
FY14 - Begin the deployment of the eTWD solution.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	C/CPFF	NAVSEA:WNY, D.C.	75.441	0.000		16.072	Oct 2012	15.184	Oct 2013	-		15.184	Continuing	Continuing	Continuing
Software Development	WR	NSLC:Mechanicsburg, PA	6.000	2.911	Jan 2012	1.975	Oct 2012	0.200	Oct 2013	-		0.200	Continuing	Continuing	Continuing
		Subtotal	81.441	2.911		18.047		15.384		0.000		15.384			

Remarks

The NAVSEA 04 Program Office for Information Technology plans to execute all contract awards for software development of shipyard and national systems through the NAVSEA SEAPORT vehicle and other competitively awarded contracts.

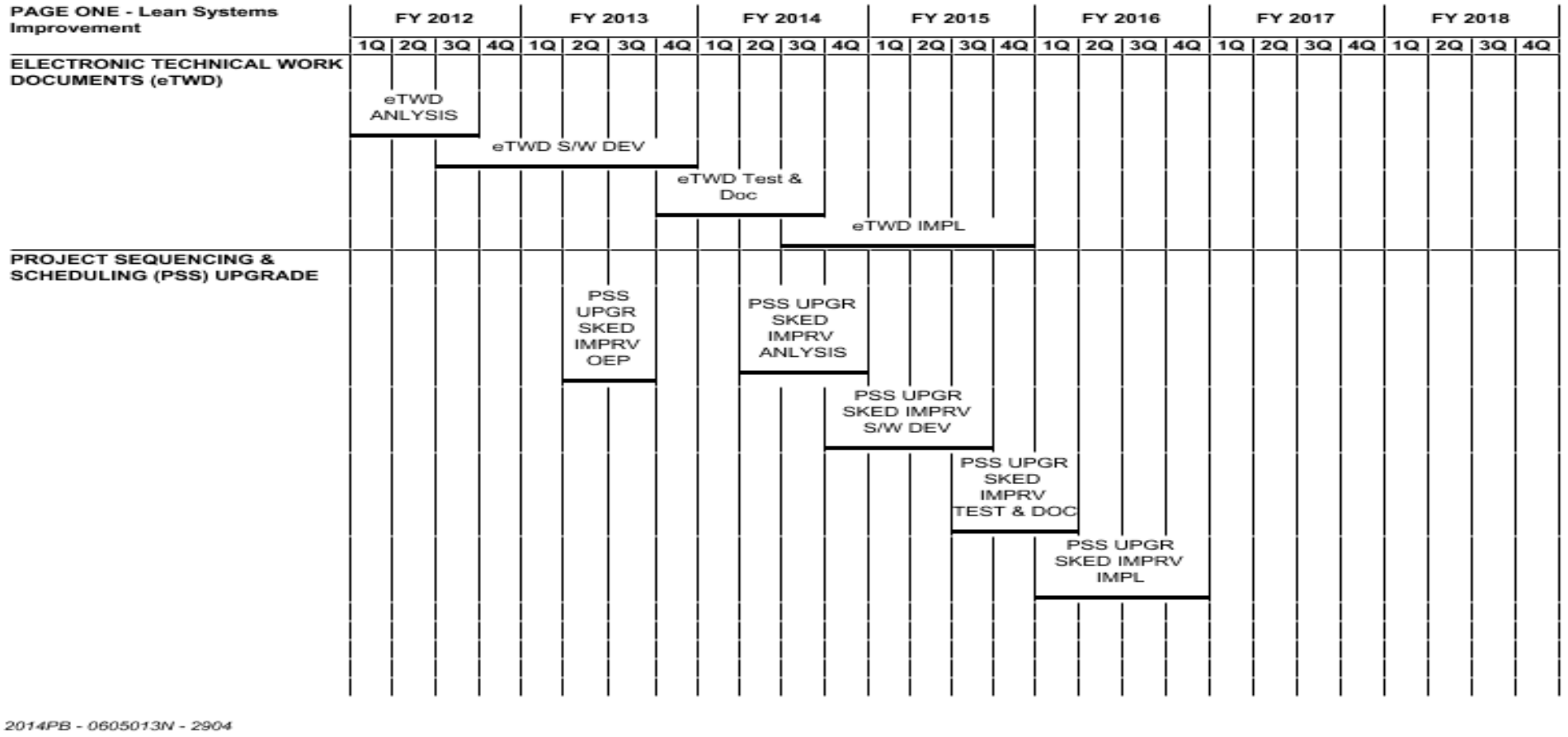
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DAWDF	Various	Not Specified:Not Specified	0.112	0.000		0.000		0.000		-		0.000	0.000	0.112	0.112
		Subtotal	0.112	0.000		0.000		0.000		0.000		0.000	0.000	0.112	0.112

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	81.553	2.911		18.047		15.384		0.000		15.384			

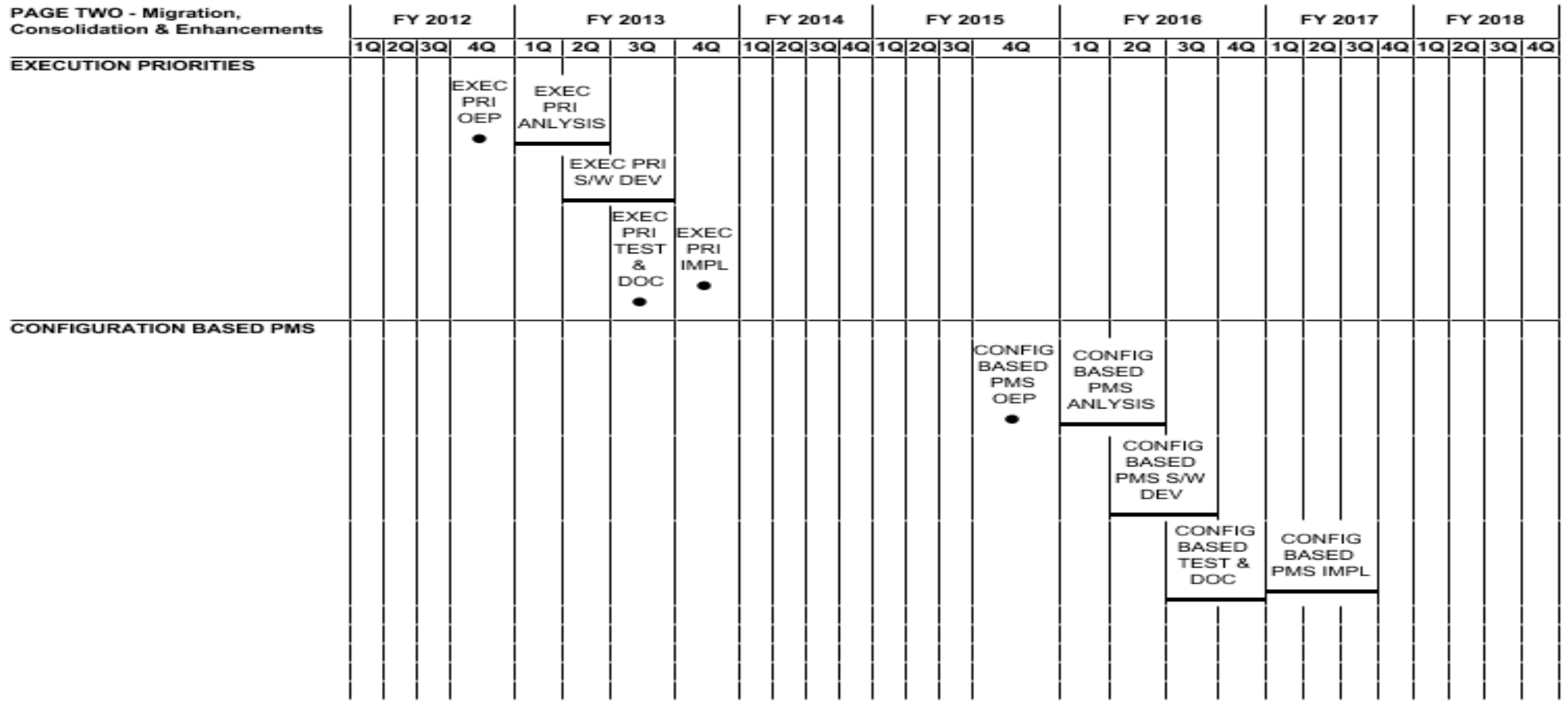
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*



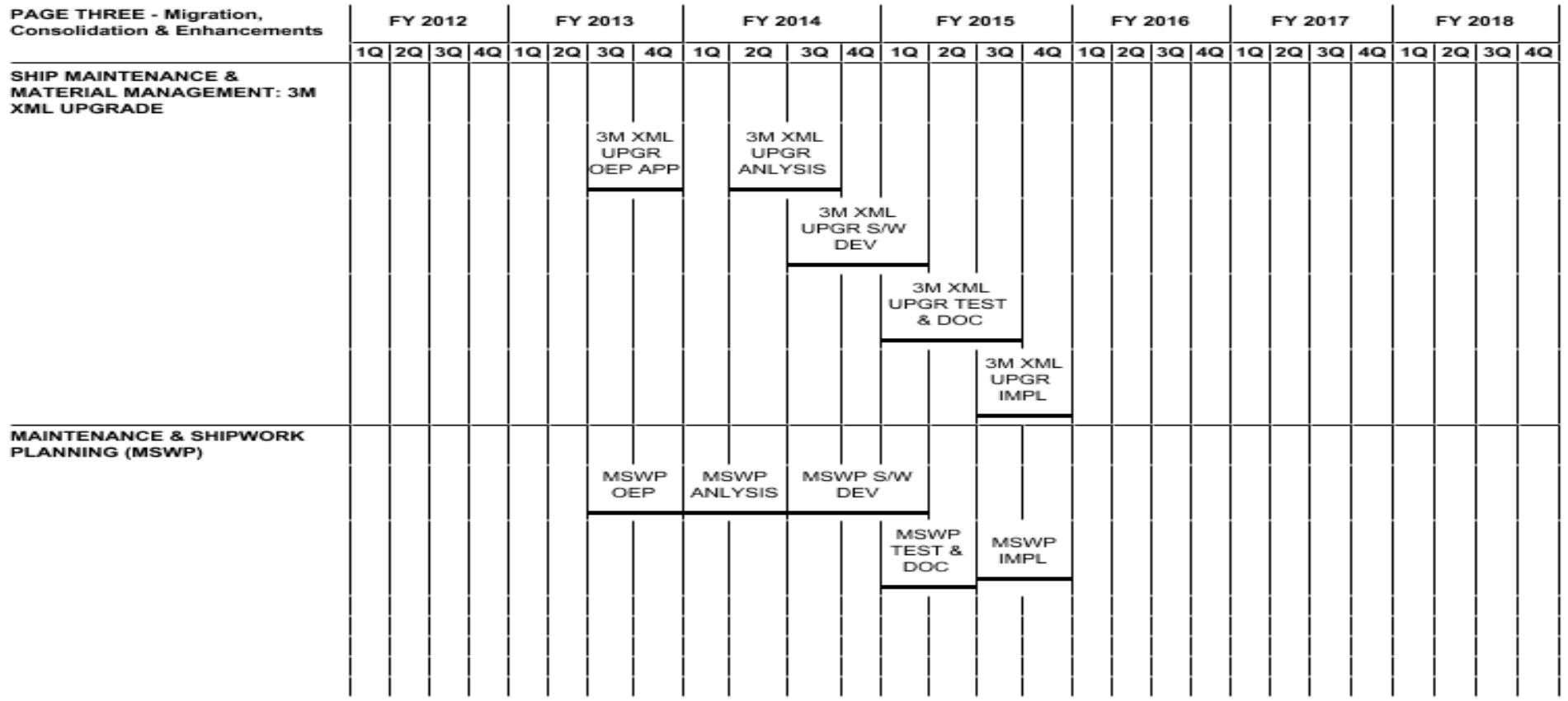
2014PB - 0605013N - 2904

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*



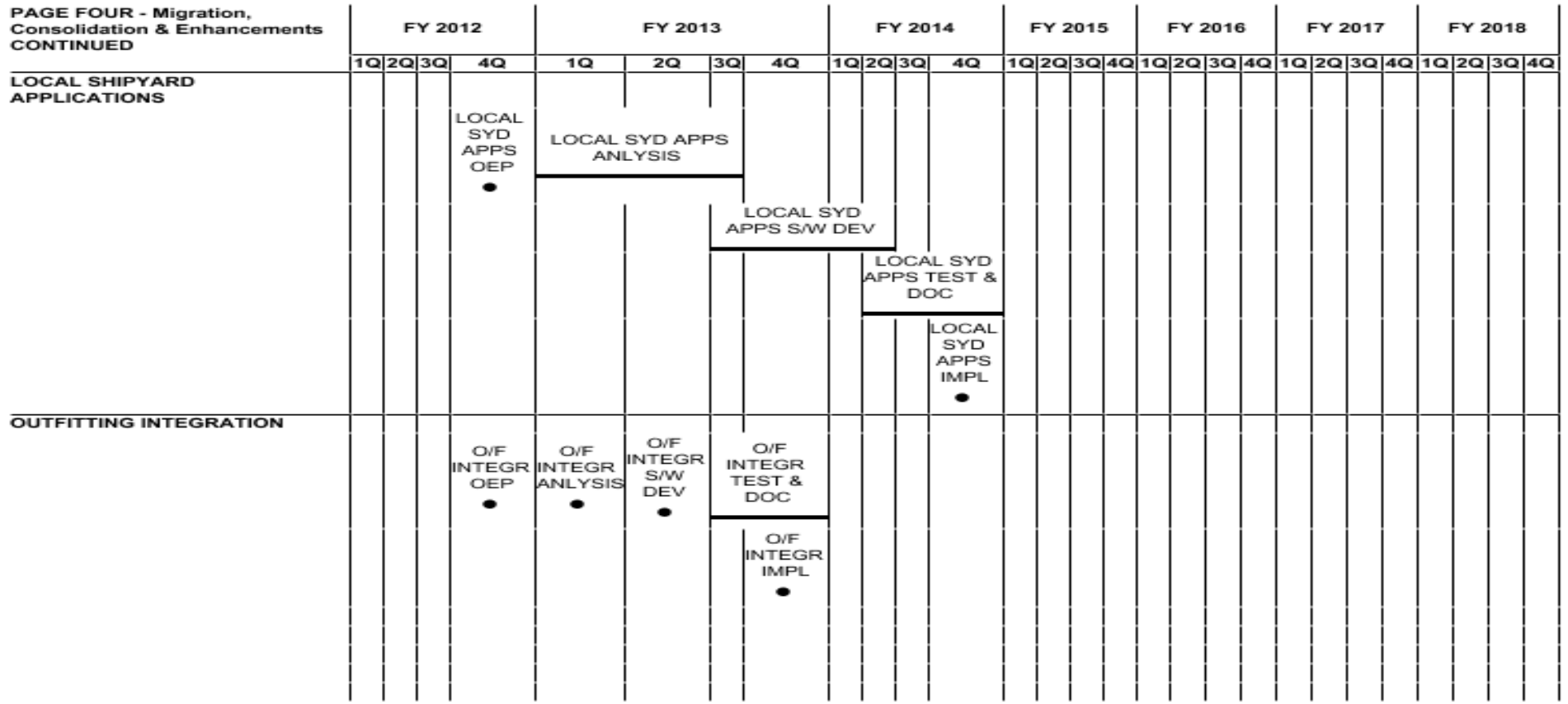
2014PB - 0605013N - 2904

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*



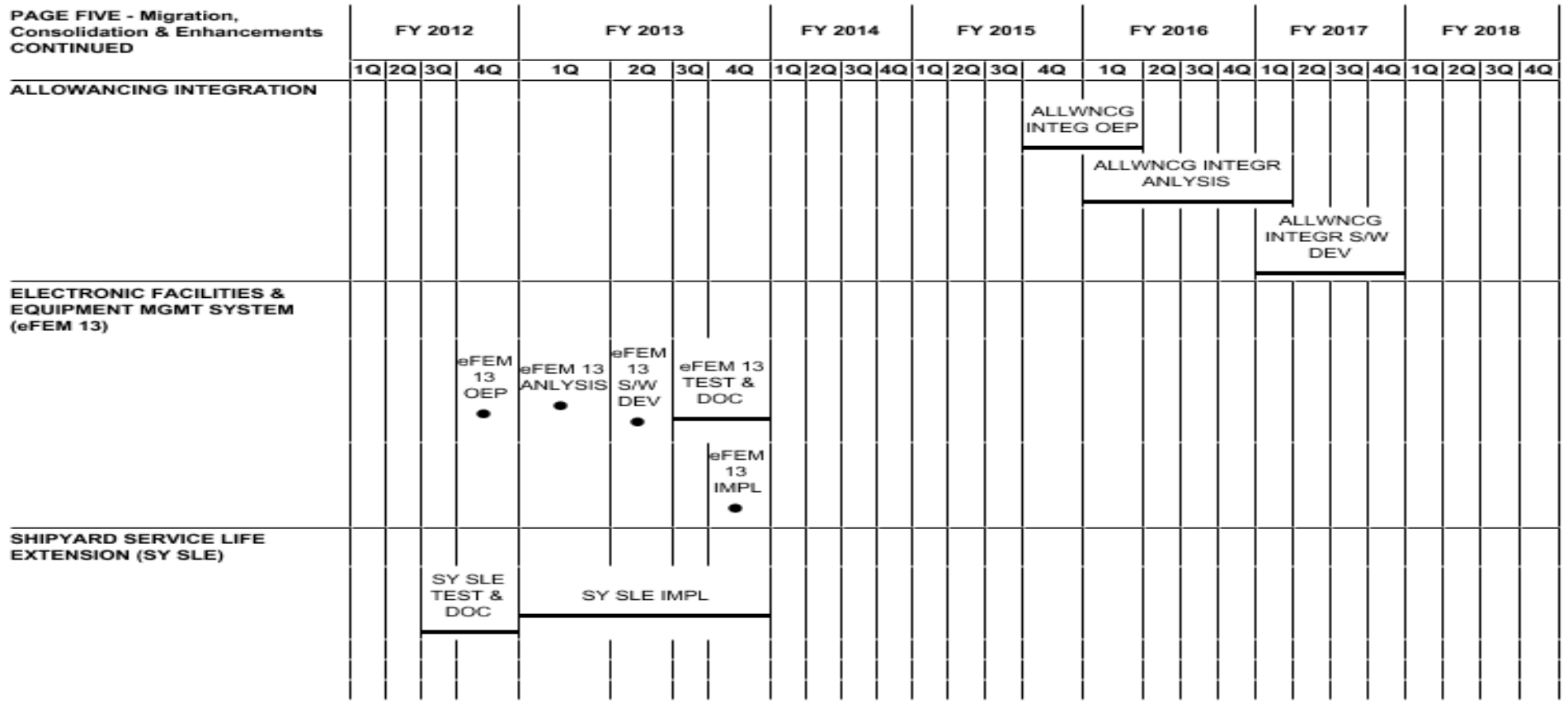
2014PB - 0605013N - 2904

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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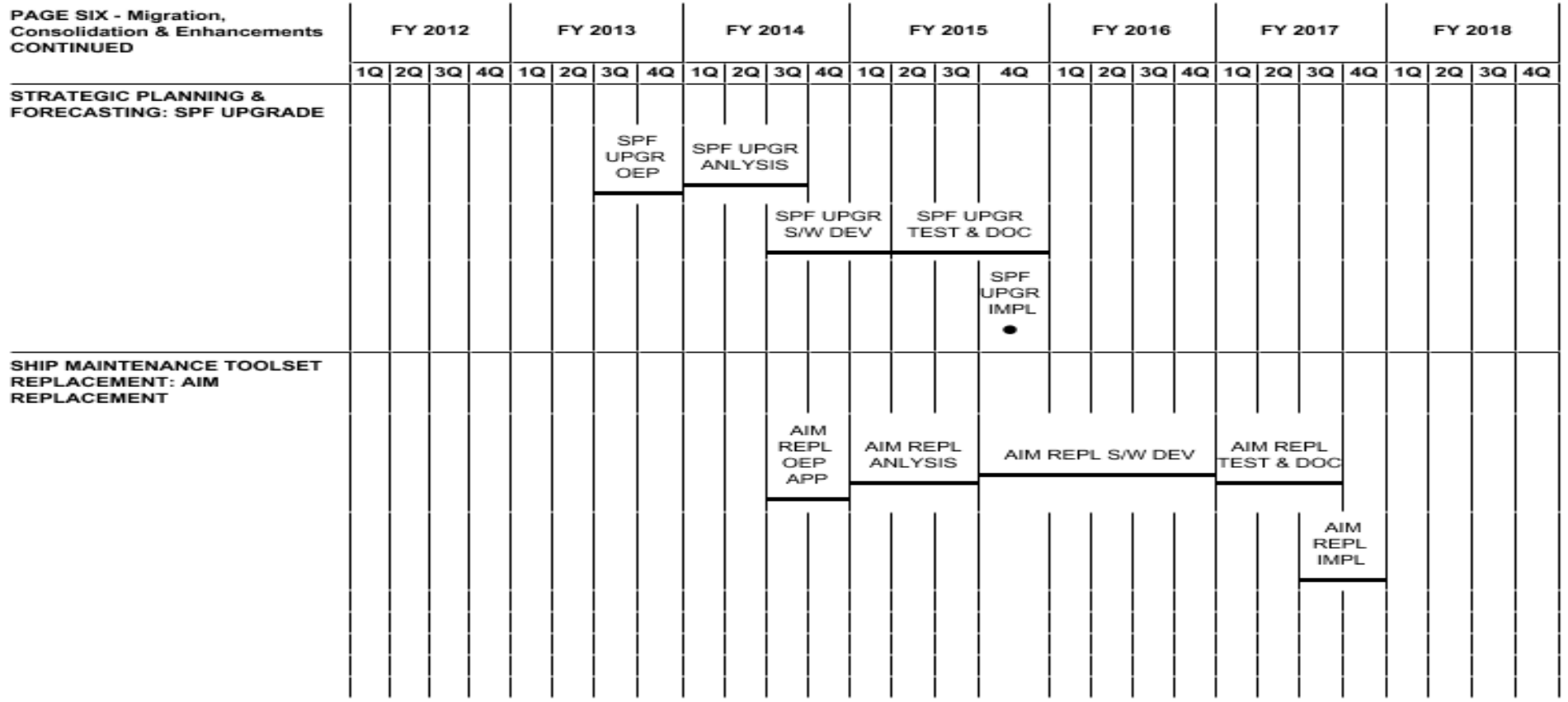
2014PB - 0605013N - 2904

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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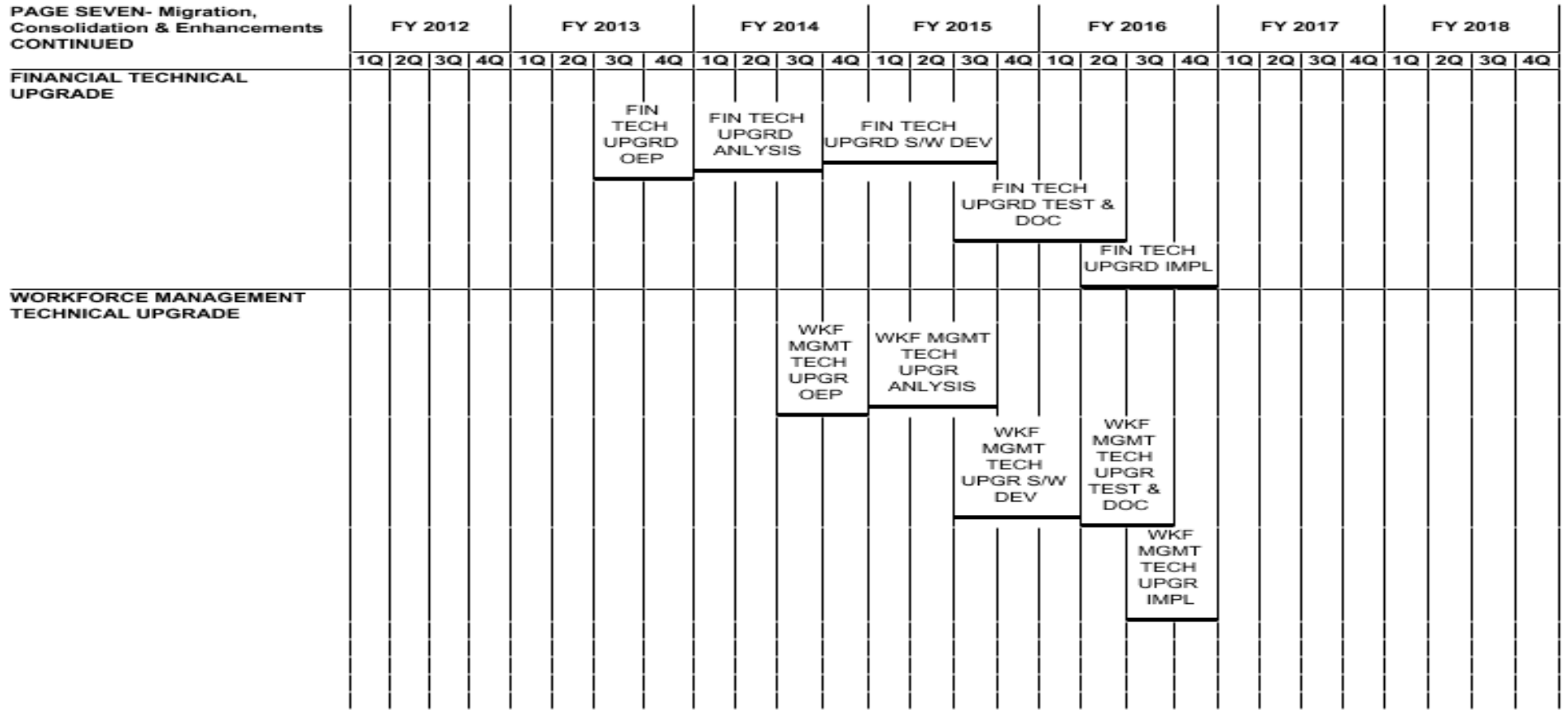
2014PB - 0605013N - 2904

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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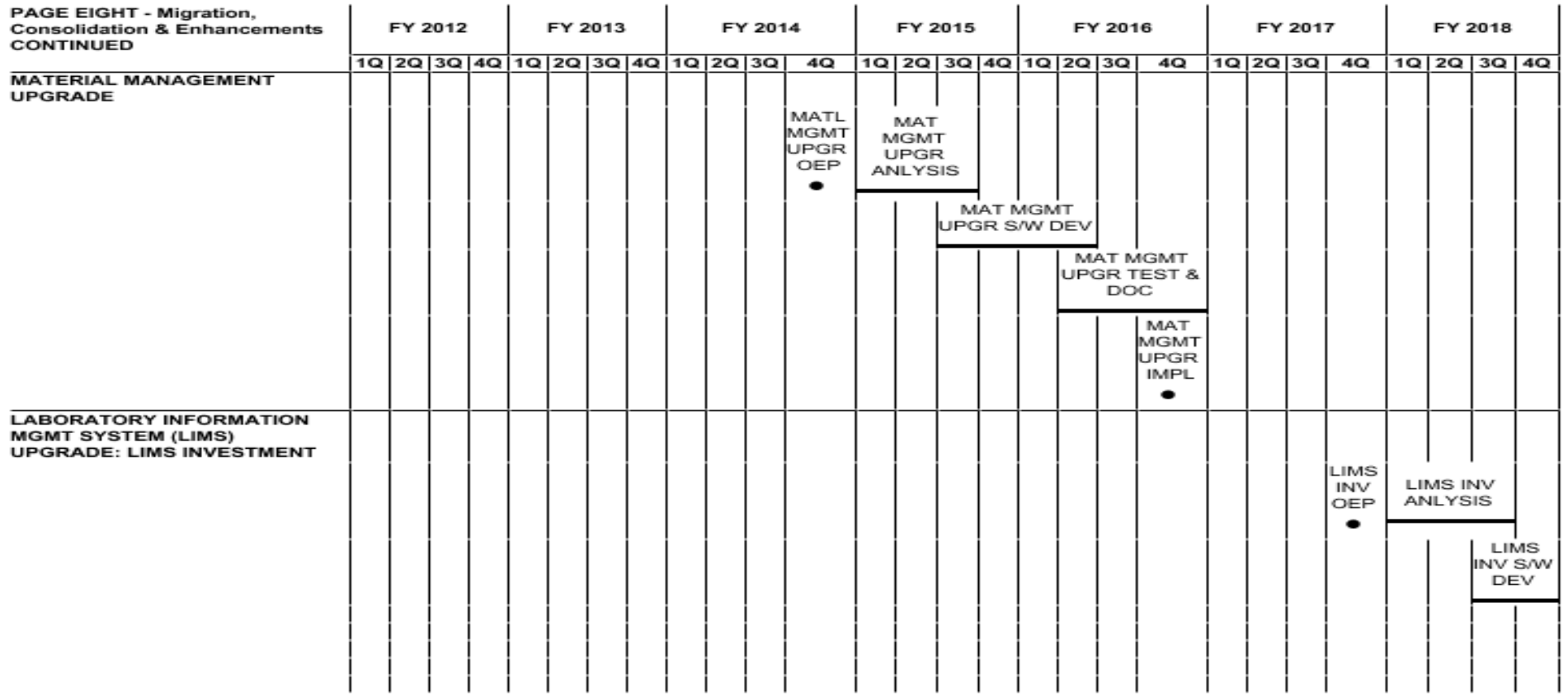
2014PB - 0605013N - 2904

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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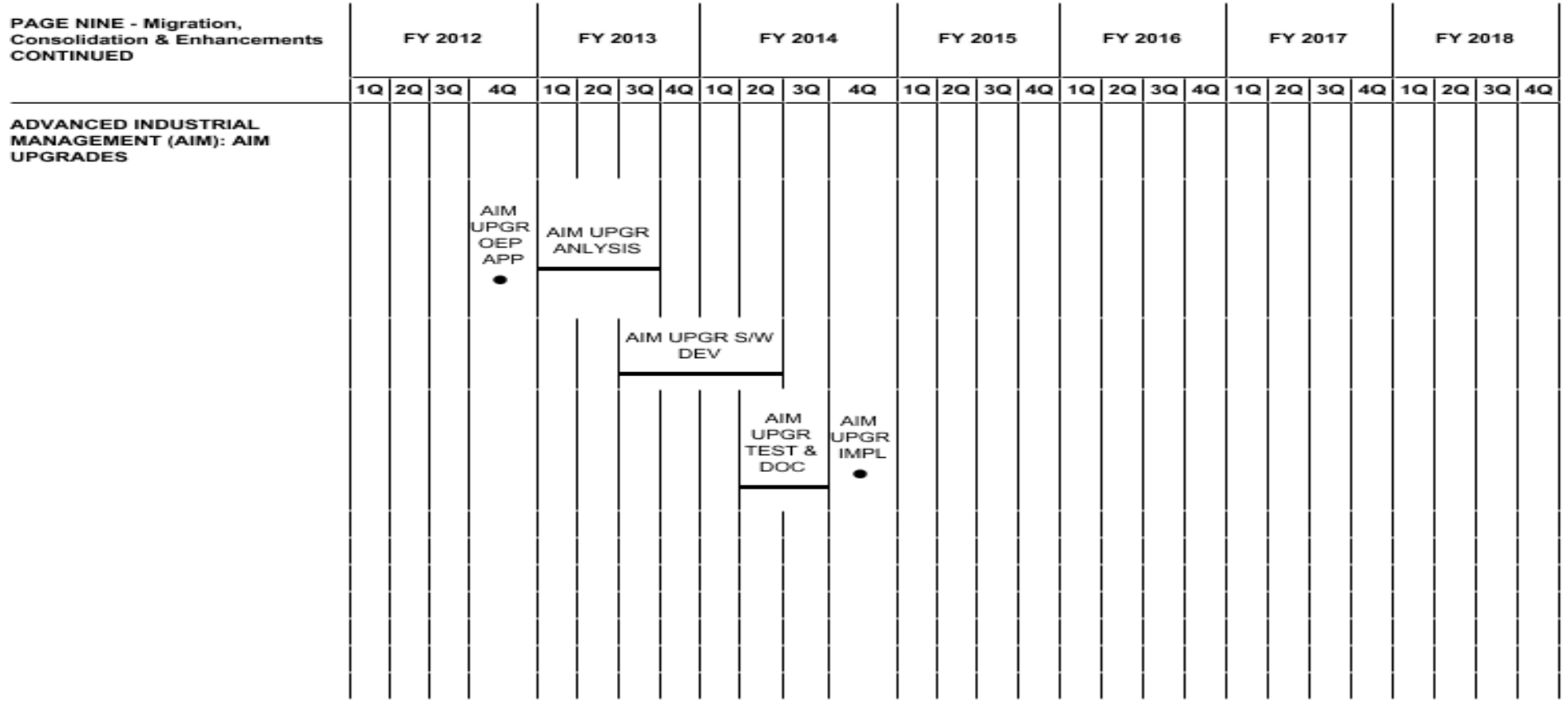
2014PB - 0605013N - 2904

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
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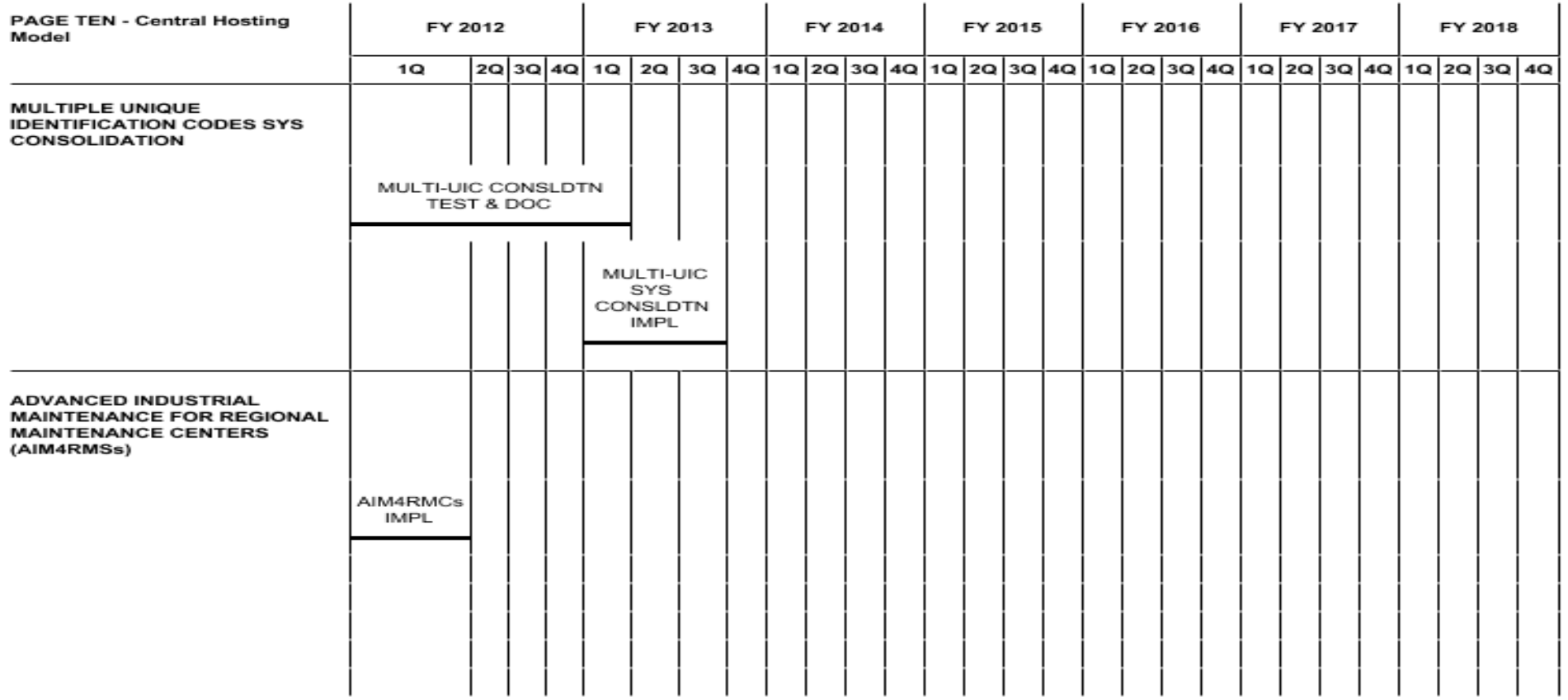
2014PB - 0605013N - 2904

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*



2014PB - 0605013N - 2904

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*



2014PB - 0605013N - 2904

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 2904: *NAVSEA IT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PAGE ONE - Lean Systems Improvement				
ELECTRONIC TECHNICAL WORK DOCUMENTS (eTWD): eTWD Analysis	1	2012	3	2012
ELECTRONIC TECHNICAL WORK DOCUMENTS (eTWD): eTWD Software Development	3	2012	4	2013
ELECTRONIC TECHNICAL WORK DOCUMENTS (eTWD): eTWD Testing & Documentation	4	2013	3	2014
ELECTRONIC TECHNICAL WORK DOCUMENTS (eTWD): eTWD Implementation	3	2014	4	2015
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Upgrade Scheduling Improvement OEP Approval	2	2013	3	2013
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Upgrade Scheduling Improvement Analysis	2	2014	4	2014
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Upgrade Scheduling Improvement Software Development	4	2014	3	2015
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Upgrade Scheduling Improvement Testing & Documentation	3	2015	1	2016
PROJECT SEQUENCING & SCHEDULING (PSS) UPGRADE: PSS Upgrade Scheduling Improvement Implementation	1	2016	4	2016
PAGE TWO - Migration, Consolidation & Enhancements				
EXECUTION PRIORITIES: Execution Priorities OEP Approval	4	2012	4	2012
EXECUTION PRIORITIES: Execution Priorities Analysis	1	2013	2	2013
EXECUTION PRIORITIES: Execution Priorities Software Development	2	2013	3	2013
EXECUTION PRIORITIES: Execution Priorities Testing & Documentation	3	2013	3	2013
EXECUTION PRIORITIES: Execution Priorities Implementation	4	2013	4	2013
CONFIGURATION BASED PMS: Configuration Based PMS OEP Approval	4	2015	4	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
CONFIGURATION BASED PMS: Configuration Based PMS Analysis	1	2016	2	2016
CONFIGURATION BASED PMS: Configuration Based PMS Software Development	2	2016	3	2016
CONFIGURATION BASED PMS: Configuration Based PMS Testing & Documentation	3	2016	4	2016
CONFIGURATION BASED PMS: Configuration Based PMS Implementation	1	2017	3	2017
PAGE THREE - Migration, Consolidation & Enhancements				
SHIP MAINTENANCE & MATERIAL MANAGEMENT: 3M XML UPGRADE: 3M XML Upgrade OEP Approval	3	2013	4	2013
SHIP MAINTENANCE & MATERIAL MANAGEMENT: 3M XML UPGRADE: 3M XML Upgrade Analysis	2	2014	3	2014
SHIP MAINTENANCE & MATERIAL MANAGEMENT: 3M XML UPGRADE: 3M XML Upgrade Software Development	3	2014	1	2015
SHIP MAINTENANCE & MATERIAL MANAGEMENT: 3M XML UPGRADE: 3M XML Upgrade Testing & Documentation	1	2015	3	2015
SHIP MAINTENANCE & MATERIAL MANAGEMENT: 3M XML UPGRADE: 3M XML Upgrade Implementation	3	2015	4	2015
MAINTENANCE & SHIPWORK PLANNING (MSWP): MSWP OEP Approval	3	2013	4	2013
MAINTENANCE & SHIPWORK PLANNING (MSWP): MSWP Analysis	1	2014	2	2014
MAINTENANCE & SHIPWORK PLANNING (MSWP): MSWP Software Development	3	2014	1	2015
MAINTENANCE & SHIPWORK PLANNING (MSWP): MSWP Testing & Documentation	1	2015	2	2015
MAINTENANCE & SHIPWORK PLANNING (MSWP): MSWP Implementation	3	2015	4	2015
PAGE FOUR - Migration, Consolidation & Enhancements CONTINUED				
LOCAL SHIPYARD APPLICATIONS: Local Shipyard Apps OEP Approval	4	2012	4	2012
LOCAL SHIPYARD APPLICATIONS: Local Shipyard Apps Analysis	1	2013	3	2013
LOCAL SHIPYARD APPLICATIONS: Local Shipyard Apps Software Development	3	2013	2	2014
LOCAL SHIPYARD APPLICATIONS: Local Shipyard Apps Testing & Documentation	2	2014	4	2014
LOCAL SHIPYARD APPLICATIONS: Local Shipyard Apps Implementation	4	2014	4	2014
OUTFITTING INTEGRATION: Outfitting Integration OEP Approval	4	2012	4	2012

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
OUTFITTING INTEGRATION: Outfitting Integration Analysis	1	2013	1	2013
OUTFITTING INTEGRATION: Outfitting Integration Software Development	2	2013	2	2013
OUTFITTING INTEGRATION: Outfitting Integration Testing & Documention	3	2013	4	2013
OUTFITTING INTEGRATION: Outfitting Integration Implementation	4	2013	4	2013
PAGE FIVE - Migration, Consolidation & Enhancements CONTINUED				
ALLOWANCING INTEGRATION: Allowancing Integration OEP Approval	4	2015	1	2016
ALLOWANCING INTEGRATION: Allowancing Integration Analysis	1	2016	1	2017
ALLOWANCING INTEGRATION: Allowancing Integration Software Development	1	2017	4	2017
ELECTRONIC FACILITIES & EQUIPMENT MGMT SYSTEM (eFEM 13): eFEM13 OEP Approval	4	2012	4	2012
ELECTRONIC FACILITIES & EQUIPMENT MGMT SYSTEM (eFEM 13): eFEM13 Analysis	1	2013	1	2013
ELECTRONIC FACILITIES & EQUIPMENT MGMT SYSTEM (eFEM 13): eFEM13 Software Development	2	2013	2	2013
ELECTRONIC FACILITIES & EQUIPMENT MGMT SYSTEM (eFEM 13): eFEM13 Testing & Documentation	3	2013	4	2013
ELECTRONIC FACILITIES & EQUIPMENT MGMT SYSTEM (eFEM 13): eFEM13 Implementation	4	2013	4	2013
SHIPYARD SERVICE LIFE EXTENSION (SY SLE): SY SLE Testing & Documentation	3	2012	4	2012
SHIPYARD SERVICE LIFE EXTENSION (SY SLE): SY SLE Implementation	1	2013	4	2013
PAGE SIX - Migration, Consolidation & Enhancements CONTINUED				
STRATEGIC PLANNING & FORECASTING: SPF UPGRADE: SPF UPGRADE OEP Approval	3	2013	4	2013
STRATEGIC PLANNING & FORECASTING: SPF UPGRADE: SPF UPGRADE Analysis	1	2014	3	2014
STRATEGIC PLANNING & FORECASTING: SPF UPGRADE: SPF UPGRADE Software Development	3	2014	1	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
STRATEGIC PLANNING & FORECASTING: SPF UPGRADE: SPF UPGRADE Testing & Documentation	2	2015	4	2015
STRATEGIC PLANNING & FORECASTING: SPF UPGRADE: SPF UPGRADE Implementation	4	2015	4	2015
SHIP MAINTENANCE TOOLSET REPLACEMENT: AIM REPLACEMENT: AIM Replacement OEP Approval	3	2014	4	2014
SHIP MAINTENANCE TOOLSET REPLACEMENT: AIM REPLACEMENT: AIM Replacement Analysis	1	2015	3	2015
SHIP MAINTENANCE TOOLSET REPLACEMENT: AIM REPLACEMENT: AIM Replacement Software Development	4	2015	4	2016
SHIP MAINTENANCE TOOLSET REPLACEMENT: AIM REPLACEMENT: AIM Replacement Testing & Documentation	1	2017	3	2017
SHIP MAINTENANCE TOOLSET REPLACEMENT: AIM REPLACEMENT: AIM Replacement Implementation	3	2017	4	2017
PAGE SEVEN- Migration, Consolidation & Enhancements CONTINUED				
FINANCIAL TECHNICAL UPGRADE: Financial Tech Upgrade OEP Approval	3	2013	4	2013
FINANCIAL TECHNICAL UPGRADE: Financial Tech Upgrade Analysis	1	2014	3	2014
FINANCIAL TECHNICAL UPGRADE: Financial Tech Upgrade Software Development	4	2014	3	2015
FINANCIAL TECHNICAL UPGRADE: Financial Tech Upgrade Testing & Documentation	3	2015	2	2016
FINANCIAL TECHNICAL UPGRADE: Financial Tech Upgrade Implementation	2	2016	4	2016
WORKFORCE MANAGEMENT TECHNICAL UPGRADE: Workforce Mgmt Tech Upgrade OEP Approval	3	2014	4	2014
WORKFORCE MANAGEMENT TECHNICAL UPGRADE: Workforce Mgmt Tech Upgrade Analysis	1	2015	3	2015
WORKFORCE MANAGEMENT TECHNICAL UPGRADE: Workforce Mgmt Tech Upgrade Softward Development	3	2015	1	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2904: *NAVSEA IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
WORKFORCE MANAGEMENT TECHNICAL UPGRADE: Workforce Mgmt Tech Upgrade Testing & Documentation	2	2016	3	2016
WORKFORCE MANAGEMENT TECHNICAL UPGRADE: Workforce Mgmt Tech Upgrade Implementation	3	2016	4	2016
PAGE EIGHT - Migration, Consolidation & Enhancements CONTINUED				
MATERIAL MANAGEMENT UPGRADE: Material Mgmt Upgrade OEP Approval	4	2014	4	2014
MATERIAL MANAGEMENT UPGRADE: Material Mgmt Upgrade Analysis	1	2015	3	2015
MATERIAL MANAGEMENT UPGRADE: Material Mgmt Upgrade Software Development	3	2015	2	2016
MATERIAL MANAGEMENT UPGRADE: Material Mgmt Upgrade Testing & Documentation	2	2016	4	2016
MATERIAL MANAGEMENT UPGRADE: Material Mgmt Upgrade Implementation	4	2016	4	2016
LABORATORY INFORMATION MGMT SYSTEM (LIMS) UPGRADE: LIMS INVESTMENT: LIMS Investment OEP Approval	4	2017	4	2017
LABORATORY INFORMATION MGMT SYSTEM (LIMS) UPGRADE: LIMS INVESTMENT: LIMS Investment Analysis	1	2018	3	2018
LABORATORY INFORMATION MGMT SYSTEM (LIMS) UPGRADE: LIMS INVESTMENT: LIMS Investment Software Development	3	2018	4	2018
PAGE NINE - Migration, Consolidation & Enhancements CONTINUED				
ADVANCED INDUSTRIAL MANAGEMENT (AIM): AIM UPGRADES: AIM Upgrades OEP Approval	4	2012	4	2012
ADVANCED INDUSTRIAL MANAGEMENT (AIM): AIM UPGRADES: AIM Upgrades Analysis	1	2013	3	2013
ADVANCED INDUSTRIAL MANAGEMENT (AIM): AIM UPGRADES: AIM Upgrades Software Development	3	2013	2	2014
ADVANCED INDUSTRIAL MANAGEMENT (AIM): AIM UPGRADES: AIM Upgrades Testing & Documentation	2	2014	3	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
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	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ADVANCED INDUSTRIAL MANAGEMENT (AIM): AIM UPGRADES: AIM Upgrades Implementation	4	2014	4	2014
PAGE TEN - Central Hosting Model				
MULTIPLE UNIQUE IDENTIFICATION CODES SYS CONSOLIDATION: Multi-UIC Systems Consolidation Testing & Documentation	1	2012	1	2013
MULTIPLE UNIQUE IDENTIFICATION CODES SYS CONSOLIDATION: Multi-UIC Systems Consolidation Implementation	1	2013	3	2013
ADVANCED INDUSTRIAL MAINTENANCE FOR REGIONAL MAINTENANCE CENTERS (AIM4RMSs): AIM4RMCs Implementation	1	2012	1	2012

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2905: *BUPERS IT*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2905: *BUPERS IT*	0.500	11.715	31.743	21.392	-	21.392	17.911	13.513	8.491	8.721	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Funding associated with the Future Personnel and Pay Solution (FPPS) program for Project 2905 has transferred from PE 0605018N Project 3034 to 0605013N 2905 beginning in FY13. This transfer realigns the funds to the responsible organization required to execute the Integrated Pay and Personnel- Navy (IPPS-N) strategy approved by the DoN Executive Advisory Board (EAB) in July, 2011. This strategy consists of Business Process Re-engineering (BPR) defined requirements, modernization/risk reduction of current personnel/pay systems centered around the Navy's Standard Integrated Personnel System (NSIPS), and development of a future pay engine. The Navy's current military personnel and pay systems face many challenges. These include a lack of integrated business processes, tools, at-sea bandwidth, and an HR system that efficiently and effectively manages, supports, pays, and accounts for the total Navy military force. Today, the activities involved in these efforts span multiple organizations and IT systems with limited coordination and limited, if any, integration among them. Some specific problem areas include:
- Fragmented personnel and pay responsibilities
- Ineffective tracking of career transitions
- Inefficient and inaccurate legacy pay systems
- Rigid and non-responsive systems that lack the ability to quickly respond to statutory and policy changes to entitlements.
- Multiple, separate personnel systems
- Lack of an integrated, robust personnel service delivery model
- Lack of robust capabilities that allow operational commanders to track and make informed decisions about personnel entering, within or departing their area of operations
- Lack of financial audit capability

The desired effects of IPPS-N strategy are:
- Generate efficiencies throughout the Manpower, Personnel, Training & Education (MPTE) enterprise
- Provide improved service to Sailors
- Facilitate informed management decision making
- Improve Fleet readiness

IPPS-N will achieve these effects by better coordinating all business processes, organizations, and information technology tools involved in supporting Navy military personnel throughout the life cycle of a service member and in operating the personnel supply chain. Improved business processes and organizational coordination are

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expected to be the dominant factors in achieving this capability. Information technology will support these new processes and relationships. All of the projects listed below are part of the IPPS-N strategy for modernizing and improving the personnel and pay processes and systems.
An integral part of IPPS-N is the Authoritative Date Environment (ADE) Authoritative Data Warehouse (ADW) initiative. ADE seeks to consolidate and eliminate redundant and non-authoritative data sources, drastically reduce the number of point-to-point interfaces, and reduce the overall cost and complexity of the Navy's enterprise information environment. It will provide a set of data services commonly used by business applications and will eliminate redundancy in the implementation of those services across the enterprise. ADE's Personnel Modernization (PERSMOD) Increment 1 initiative was approved in the FY13 DON Investment Decision Memorandum (IDM) for Personnel and Readiness (P&R) Defense Business Systems (DBS)1. This increment demonstrates the adoption of the ADW with MPTE's personnel modernization efforts. This will support reengineered Retirements and Separations processes and the Navy's effort to reduce Personally Identifiable Information.

A. Mission Description and Budget Item Justification

BILLET BASE DISTRIBUTION (BBD): Due to the changing needs of the Navy, transformation of the requisition generation and assignment processes is necessary. Current requisition generation and distribution processes utilize an inventory-based system that does not fully reflect the actual needs of Navy commands or accurately identify the Sailor's currently assigned position. This methodology hinders the ability to accurately measure or ensure personnel readiness, leaving gaps in skills-to-position requirements. Commands, Immediate Superior in Chain, Type Commanders, Major Manpower Claimant, United States Fleet Forces, Manning Control Authorities, and Distribution and Placement personnel currently lack the capabilities necessary to align and sustain sailors in discrete positions. Furthermore, a command's manning cannot be analyzed and the actual knowledge, skills and abilities critical to a command's mission execution cannot be determined. The objective of BBD is to replace the current inventory-based requisition generation process with automated functionality, which is requirements driven, inventory-balanced, and position-based. This methodology will increase personnel readiness, improve fit, and provide clear visibility to the impact on mission readiness at the billet level. BBD will facilitate maximizing the contributions of every member of the Navy workforce by delivering competency-based career paths. BBD will be accomplished in two phases: Phase I (Core BBD Capabilities) and Phase II (Optimized Assignments).

PERSONALIZED RECRUITING FOR IMMEDIATE AND DELAYED ENLISTMENTS (PRIDE) MODERNIZATION (MOD) II: PRIDE Modernization II is the center-piece of Naval Recruiting Command (NRC) Information Technology Roadmap and provides a way forward for NRC's Agenda for Change. Release II will consolidate Reserve Component, Active Component, Officer and processing into a single, integrated recruiting processing system. Release II will retire Command Integrated Recruiting Information Management System, Navy Accessions Security Information System Web Based Officer Tools, and Military Incentive Tracking, Accounting and Payment System. It will incorporate a "turbo-tax" type forms solution and incorporate biometric personal identification, eliminating the requirement for a "wet" signature. In addition, Release II will include functionality not executed under Release I due to funding constraints.
The system moves the organization from antiquated business processes (hardcopies, fax, manual data exchange) into a real-time, end-to-end connectivity across the enterprise. It also sets the groundwork for the "mobile recruiter" initiative outlined in the Recruiter of the Future 2020 initiative as well as the NTF Authoritative Data Environment. Both, the NTF Flag and Working Groups, recognized the vast significance this initiative will have on the N1 Enterprise and signified the need to keep the project on track.

INTEGRATED PERSONNEL AND PAY SYSTEMS - NAVY (IPPS-N): Beginning in FY13 efforts previously identified for the Future Personnel and Pay Solution (FPPS) program were moved under BUPERS IT modernization. During POM 14, all of the FY14 IPPS-N funds were separated into the various systems components, therefore there are no FY14 dollars associated with IPPS-N in FY14. These componenet systems are now identified as Learning Management System -Distance Learning (LMS-

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DL), My Navy Portal (MNP), Total Force Manpower Management System (TFMMS), Navy Manpower Requirements System (NMRS), Navy Recruiting Information System (NRIS), and Reserve Headquarters System (RHS). IPPS-N funding supports design, development and modernization efforts. The integrated personnel and pay system mission is to develop economical and efficient solutions allowing the Navy to respond rapidly to warfighter personnel and pay information needs. IPPS-N will be developed in a series of increments. The capabilities have been identified to cover the end-to-end hire-to-retire processes. The first increment will consist of the capabilities defined as separations and retirements. Increments two and three have not been determined at this point as to what capabilities within the hire-to-retire processes will be bundled together to make up the increment.

The following programmed activities support the integrated personnel/pay system mission:

a. Analyze and develop risk reduction activities

b. Analyze interfaces, data, and reports between current core Human Resources Personnel functions, Navy Standard Integrated Personnel System, and other Government-Off-the-Shelf solutions

c. Continue development and management of prototype lab environment

LEARNING MANAGEMENT SYSTEM - DISTANCE LEARNING (LMS-DL): The effort to modernize LMS-DL was initiated by the Enterprise Training Management Delivery System (ETMDS) RDT&E efforts and began in FY10. Effort continues in FY12 and FY14 (Phase II). ETMDS Phase II A (delivery order two) will improve LMS-DL capability by providing an improved technology based for the delivery of training. These additional ETMDS services will provide for the integration of curricula development, training and student management, and content management through the establishment of interfaces and process integration with Authoring Instructional Material (AIM), Corporate Enterprise Training Activity Resource System (CeTARS), and Atlas Pro learning management software.

Phase II B (delivery order three) will provide for the following: 1) interface with secondary LMS such as Sakai to provide collaborative learning environment and classroom management capabilities, 2) the ability to download training content in a disconnected environment, with the completion data able to be uploaded later, 3) the ability to deliver content through mobile technologies that is device agnostic, using a mobile framework to display content to the learner on multiple-sized display screens and 4) the ability to deliver content to the learner by creating, de-confliction, prioritizing and scheduling learning event plans, supported by a learning management system and governed by learning event rules.

MY NAVY PORTAL (MNP)Phase 2B: MNP is a web application providing access to and interaction with relevant information assets (content, applications, business processes), knowledge assets and human assets, to targeted audiences, delivered in a highly personalized manner. MNP seeks to consolidate and eliminate multiple portals and will absorb the need for sailors to use various applications which cross multiple lines of business'. It will provide a set of technology services commonly used by sailor facing applications and will eliminate redundancy in the implementation of those services across the enterprise. The MNP investment is designed to reduce the overall DON IT footprint, reduce the number of Navy portals, reduce the investment in technology services by business applications, and improve the quality of service provided to sailors and marines. MNP will be executed in multiple phases. The first of those phases (2a) will result in a comprehensive roadmap defining the activities planned for a subsequent phases

System functions for MNP fall into 5 broad categories:

1. Identity and Access Management - 2. Information Architecture - 3. Content Management and Collaboration - Enables federation of content, knowledge management, communities of practice and collaboration sites and robust/intelligent search capabilities. 4. Application Integration and Aggregation 5. Service Delivery and Customer Relationship Management The external applications that are integrated into MNP will be a subset of two existing Systems of Systems, Navy Knowledge Online (NKO)

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and BUPERS Online (BOL). MNP is expected to support well over 1,250,000 users comprised of all USN active duty and reserve personnel, dependents, all DoN civilians, retirees, contractors and other specifically authorized personnel. MNP will also support a public site accessible to the general public (no login required).

TOTAL FORCE MANPOWER MANAGEMENT SYSTEM (TFMMS): TFMMS is the Navy's authoritative source for manpower management. The current capability to generate the authoritative, enterprise-wide, naval manpower information products, including Activity Manpower Documents (AMD), total force positions, manpower resource controls, and organizational structure is based on an outdated, non standard, force structure definition with limited access to a mainframe classified environment. TFMMS modernization will establish a modernized web based system that can be accessed via a classified and unclassified environment providing increased access, modernized manpower processes, and improved cyber defense. This implementation will be done in two phases. Phase 1 will modernize the existing manpower functionality. Phase II (currently unfunded) will implement additional capabilities that will be identified during the requirements phase. The change in capability fundamentally impacts the speed and cost effectiveness of achieving Navy readiness by delivering the manpower activity manpower documents and information based on standard force structure and timely analysis that promotes efficiencies in all downstream processes including recruiting and accessions, distribution, and workforce development. Phase I will begin in FY2014 to include Business Process Reengineering and detailed requirements documents including the development of System Subsystem Specification (SSS), System Requirements Specification (SRS), and supporting architecture documentation

NAVY MANPOWER REQUIREMENTS SYSTEM (NMRS): NMRS is a large-scale modeling providing quantitative and qualitative manpower planning. It determines requirements for varying workload under varying capabilities and conditions of readiness for each Navy activity (Ships and Squadrons). The Navy Manpower Requirements System is the Navy's authoritative source for generating manning requirements in support of missions, functions, and tasks of an Organization/ Component. The existing legacy system is founded on an outdated, non-standard force structure definition that is decades old. NMRS modernization will establish a modernized business process and technology to manage manpower requirements determination.

NAVY RECRUITING INFORMATION SYSTEM (NRIS): NRIS provides automated support of the management of recruiting information so that all levels of recruiting have timely and accurate real-time information for management decision support by consolidating NRC legacy application systems. The complete Navy Recruiting Information Systems Dev/Mod effort will incorporate Biometrics and paperless implementation across all line of business systems to gain additional efficiencies. FY14 funds support Electronic Signature Validation and the following functionality and scope:
- RF2020 paperless processing objective
- Biometric Signature will replace legal wet signature (process over 2M pages annually)
- Workflow automatically route/process biometrically signed documents

RESERVE HEADQUARTERS SYSTEM (RHS): RHS is a mission-critical system used in the data collection and dissemination process necessary for command and control of Selected Reserve (SELRES) mobilization. RHS supports the Navy Reserve functional areas of manpower, personnel, billet and unit management, mobilization management, personnel pay management, and training management. The system currently has an end of life in 2017 due to a lack of software vendor support which is required to remain compliant with NETWARCOM security policy. Although a portion of the functionality within RHS is targeted to migrate during the Navy Standard Integrated Personnel System (NSIPS) Modernization, a considerable amount of mission critical non personnel and pay functionality is not within scope of the NSIPS Modernization. Since RHS has an end of life issue, funding is required to conduct the software engineering necessary to develop, integrate, and deploy this orphan functionality.

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The two largest areas of orphan functionality include the following:
- Unit Management: All Navy Reserve unit establishment and disestablishment is managed via the RHS online application. As units are established and disestablished, the RHS batch and interface processes send those changes to all interfacing systems that require the data including DJMS-RC and NSIPS. The RHS Unit Management application also allows for the updating of drill limits by UNIT for the following types of PAY drills: Inactive Duty for Training (IDT), Additional Training Period (ATP), Additional Flight Training Period (AFTP), and Reserve Management Period (RMP). When changes are made to drill limits on Navy Reserve Units in RHS, the RHS nightly batch processes generate the appropriate individual drill limit transactions to send to DJMS-RC and NSIPS for all of the reservists assigned to that unit.
- Billet Management: The RHS application provides Billet Management functions for the Navy Reserve. When new billets are received from TFMMS, the RHS application provides CNRFC with the ability to "structure" or assign that billet to a Navy Reserve unit. The RHS application also processes Billet changes from TFMMS and applies those to the existing billets in RHS. As billet changes are received and new billets are structured, the RHS application sends those changes to all interfacing systems that need the data including NSIPS and CMS-ID. The RHS online application also allows for the assignment of a navy reservist to a billet and sends proper transactions to all interfacing systems that require the data.

ANALYSIS OF ALTERNATIVE/ECONOMIC ANALYSIS (AOA): As part of the IPPS-N strategy, the Navy plans to conduct multiple AoAs to analyze viable alternatives in order to determine the most efficient and effective solution to address the modernization of elements of the Navy's Manpower, Personnel, Training and Education (MPTE) IT portfolio.

RISK MANAGEMENT INITIATIVE (RMI: The Risk Management Information (RMI) program initiates transition of existing legacy and core safety programs and risk management systems, applications and data into a single Program of Record (POR). RMI capability consists of four distinct safety capabilities: Streamlined Incident Reporting (SIR), Single Point of Entry (SPOE), Safety Program Management(SPM) and Analysis & Dissemination (A&D). Each of these capabilities will be acquired as individual Abbreviated Acquisition Programs.
The RMI initiative is new growth and legacy system funding will not be used as an off-set until full operational capability is achieved by RMI. The goal of this effort is to use an evolutionary, incremental approach to implement reengineered business processes, revert customizations back to core Commercial Off The Shelf (COTS) software, and consolidate five legacy stovepipe systems [Web-Enabled Safety System (WESS), Enterprise Safety Application Management Systems (ESAMS), Portsmouth Occupational Accident and Illness Reporting System (POAIRS), Explosives Safety Siting (ESS), Medical Mishap and Compensation (MMAC)] into a complementary and supportable RMI capability. RMI will provide modern Safety capabilities for the military (both active and reserve) component of the Navy Total Force, enabling agile responses to business rule changes, automation of routine actions, improve data integrity, and facilitate self-service for organizations and individuals. RMI development and modernization is a key part of the Navy's plan to address outdated Safety systems, capability gaps and Logistic Information Technology (IT) portfolio rationalization. To achieve this vision, the award of an Indefinite-Delivery Indefinite-Quantity (ID/IQ), single award contract with multiple pricing arrangements (cost-plus-fixed-fee; cost-plus-incentive-fee; firm fixed price; cost only) is planned.
The first two capabilities to be acquired in FY14 are SIR and SPOE.
Streamlined Incident Reporting will:
- Provide a Single Point of Entry available to all Naval safety personnel reducing the inconsistencies introduced by dissimilar user organizations and systems.
- Allow for off-net safety reporting that is accessible regardless of bandwidth

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- Provide built in logical workflow for reporting incidents (Initial Notification> Safety Investigation Reports > Endorsements> Final Reports> Action Items> Analysis> Lessons Learned)
- Eliminate/reduce redundant information input
-- Duplicative reporting unnecessary
-- OPREPS serve as Initial Notifications and sent to Communities Of Interest
-- All data from OPREP auto-populates all subsequent forms and reports
- Provides an automated endorsing process with system-generated email reminders at defined intervals to ensure compliance of required actions, per OPNAVINST policies
- Provide endorsers with evidence attachment functionality, which stores all necessary information in one place, and allows for archival with associated report
- Inititiate the standardization of doctrine and policy for incident reporting by modifying OPNAVINST 3750 and 5102 instructions
- Provide a single standardized source for incident reporting training and reduces the training costs associated with multiple systems.
- Improve the collection of incident reporting data for analysis and risk reduction, supporting the development of a Navy culture of safety.

The Single Point of Entry capability will improve existing legacy and core safety programs and risk management systems by providing an infrastructure solution that supports integration of RMI systems and data.

The primary intent of the SPOE is to provide users with a single, common user interface to perform all safety functions regardless of user location (ashore or shipboard). The SPOE may leverage already supported PMW 240 portal technology to minimize the number of unique Navy portals to take advantage of training economies of using a known interface.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Personalized Recruiting for Immediate and Delayed Enlistment Modernization (PRIDE MOD) II	6.281	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: Performed a review of system requirements of PRIDE Mod II and made contract award.			
Title: Billet Based Distribution (BBD)	4.934	0.000	3.400
Articles:	0		0
FY 2012 Accomplishments: Performed detailed requirements analysis, system engineering reviews, and began software development.			
FY 2014 Plans: Deploy BBD Phase I and perform detailed requirements analysis, sytstem engineering reviews, and begin software design and development of BBD Phase II.			
Title: Integrated Personnel and Pay Systems - Navy (IPPS-N)	0.000	31.743	0.000
Articles:		0	
FY 2013 Plans:			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
IPPS-N: Continue detailed analysis of interfaces, data structure mapping, and reports between Reserve Headquarters System (RHS) and Navy Standard Integrated personnel System (NSIPS). This effort is the second phase of analysis of the legacy systems functionality to the proposed OSD driven data structure mapping efforts and enterprise alignment. - Initiate phase one analysis (interfaces, data, and reports) between Officer Personnel Information System (OPINS) and NSIPS. This effort will analyze the data structures and functionality of OPINS and the DoD OSD driven Data mapping effort and enterprise alignment. The goal of this effort is better reports management and increased interoperability between corporate Navy Human Resources systems and OSD systems within the lab environment. - Conduct software testing activities on the lab activities in support of developing test scripts and plans with the expectation of providing this information to the Navy Systems Engineering Technical Review (SETR) process. Testing teams will be composed of support contractors and Government subject matter experts (SME) from multiple commands. - Initiate modeling and simulation efforts to effectively forecast software requirements and technical specification in the Statement of Work development effort. - Initiate development of Navy required SETR documentation, such as Alternative Software Review artifacts, Preliminary Design Review artifacts, Initial Technical Review artifacts, Technical Readiness Review artifacts, and Critical Design Review artifacts.			
Title: Learning Management System - Distance Learning (LMS-DL) ***Articles:*** ***FY 2012 Accomplishments:*** Enterprise Training Management Delivery System (ETMDS) Phase II A identified requirements and system, subsystem specifications. ***FY 2014 Plans:*** ETMDS Phase II B will perform a system requirements review, preliminary design, and critical design review.	0.500 0	0.000	2.000 0
Title: My Navy Portal (MNP) ***Articles:*** ***FY 2014 Plans:*** Plans are to further refine the integration roadmap and migration patterns associated with applications identified in Phase 2A effort as well as refining requirements and starting the design review.	0.000	0.000	2.800 0
Title: Total Force Manpower Management System (TFMMS) ***Articles:*** ***FY 2014 Plans:***	0.000	0.000	2.300 0

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Develop System Subsystem Specification (SSS), System Requirements Specification (SRS) and supporting architecture documentation. Additionally, application design will be completed and development phase will begin.			
Title: Navy Manpower Requirements System (NMRS) ***Articles:*** ***FY 2014 Plans:*** Begin Phase I of Business Process Reengineering of the "To Be" systems and detailing requirements. Plans are to develop System Subsystem Specification (SSS), System Requirements Specification (SRS) and supporting architecture documentation. Additionally, application design will be completed and development phase will begin.	0.000	0.000	2.500 0
Title: Analysis of Alternative Economic Analysis (AOA EA) ***Articles:*** ***FY 2014 Plans:*** N/A	0.000	0.000	0.500 0
Title: Navy Recruiting Information System (NRIS) ***Articles:*** ***FY 2014 Plans:*** To complete the Systems Requirement Review (SRR), begin design, and complete preliminary design review. Validate system interface requirements and business process mapping.	0.000	0.000	3.392 0
Title: Reserve Headquarters System (RHS) ***Articles:*** ***FY 2014 Plans:*** RHS orphan functionality will be deployed in multiple iterations. In FY14, funding will support the design and initial development of iteration 1.	0.000	0.000	1.500 0
Title: Risk Management Initiative (RMI) ***Articles:*** ***FY 2014 Plans:*** Award contract. Perform SIR and SPOE system requirements review, preliminary design review and critical design review.	0.000	0.000	3.000 0
Accomplishments/Planned Programs Subtotals	11.715	31.743	21.392

C. Other Program Funding Summary ($ in Millions)

N/A

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C. Other Program Funding Summary ($ in Millions)

Remarks

D. Acquisition Strategy

BBD Phase I and II: Acquisition will be through contract technical services. The required services will be procured through a competitive performance-based service acquisition. Acquisition will be primarily through SPAWAR Systems Center Atlantic, New Orleans. An incremental development approach will be used.

PRIDE MOD II: Acquisition will be through contract technical services contract award. The required services will be procured through a competitive performance-based service acquisition using Cost Plus Fixed Fee (CPFF) and Firm Fixed Price (FFP) contracts. Design will be completed in 1st quarter FY14 and production end 1st quarter FY14.

IPPS-N: The current strategy consists of an incremental migration of Human Resources functionality aligned with the capability areas mapped to the DoD Hire to Retire End to End Lifecycle to the Navy Standard Integrated Personnel System (NSIPS). The first increment will begin with separations and retirements Personnel functions. This strategy will also support the development of an Authoritative Data warehouse providing governance, validation and continuity of the data transfer between NSIPS and the data environment.

LMS-DL: Acquisition will be through an IDIQ contract for technical services. New delivery order is expected to fulfill these requirements. Of the three contract delivery orders required, the first one is completed, the second acquisition phase or delivery order was issued in FY12 and the third and final delivery order will be issued in FY14.

MNP: The second and all subsequent phases of MNP execution will be accomplished via a competitively awarded ID/IQ. Individual Delivery Orders will be issued against this ID/IQ for the engineering and systems design and development associated with each phase. The second phase (phase 2b) of MNP will be executed against this ID/IQ using $2.8M of FY14 RDTE funds.

TFMMS: Task orders will be awarded using existing SPAWAR Atlantic Pillar Multiple Award Contracts (MAC).

NMRS: Task orders will be awarded using existing SPAWAR Atlantic Pillar Multiple Award Contracts (MAC).

NRIS: Task order will be awarded using existing SPAWAR contract and will be competitively awarded.

RHS: Task orders will be awarded using existing SPAWAR Atlantic Pillar Multiple Award Contracts (MAC).

RMI: Award a single vendor Indefinite Delivery / Indefinite Quantity (IDIQ) The approach for RMI is an incremental development model that provides usable increments of capability within 24 month cycles after funds certification for each. The RDTE beginning in FY14 will be used for development of the Streamlined Incident Reporting

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and Single Point of Entry capability increments through separate task orders. Safety Program Management and Analysis & Dissemination will be initiated with FY15 RDTE.

E. Performance Metrics

BBD: Meet program, system engineering and technical review milestones for development of BBD Phase I, with no oustanding severity 1-3 defects for production release. Meet program, system engineering and technical review milestones for development of BBD Phase II.

PRIDE MOD II: Meet program and systems engineering and technical review milestones for deployment of a PRIDE MOD PHASE II, with no outstanding severity 1-3 defects for production release.

IPPS-N:
1. Demonstrate the feasibility of at least one technical architecture approach for IPPS-N.
2. A 20% reduction in the number of redundant transactional systems for personnel and pay.
3. A 15% reduction in system interfaces.
4. Documented plan and preliminary design for the consolidation of legacy personnel systems.
5. Develop a Navy Authoritative Data Warehouse for data standardization.

LMS-DL: Meet program, systems engineering, and technical review milestones for ETMDS for delivery orders two and three. Provide a capability that will allow Naval Education and Training Command to virtually present at least 10% of the scheduled training that is now presented in person.

MNP: Meet major systems engineering and technical review milestones. Integrate at least 9 existing MPTE systems by incorporating their functions into MNP as the presentation layer.

TFMMS: Performance objectives and thresholds will be established during the requirements phase.

NMRS: Performance objectives and thresholds will be established during the requirements phase.

NRIS: Performance objectives and thresholds will be established during the requirements phase.

RHS: Performance objectives and thresholds will be established during the requirements phase.

RMI: Meet major systems engineering and technical review milestones.

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
BBD Phase I Requirement Analysis	C/FP	SSC NOLA:New Orleans, LA	0.000	0.504	Mar 2012	0.000		0.000		-		0.000	0.000	0.504	0.504
BBD Phase I System Engineering	C/FP	SSC NOLA:New Orleans, La	0.000	4.430	Mar 2012	0.000		0.000		-		0.000	0.000	4.430	4.430
PRIDE MOD II System Design and Development	C/FP	BUPERS:Millington, TN	0.000	4.381	Mar 2012	0.000		0.000		-		0.000	0.000	4.381	4.381
IPPS-N System Design & Development	C/BA	Unknown:Unknown	0.000	0.000		20.395	Jul 2013	0.000		-		0.000	0.000	20.395	20.395
IPPS-N System Engineering	C/BA	Unknown:Unknown	0.000	0.000		2.300	Jul 2013	0.000		-		0.000	0.000	2.300	2.300
LMS-DL Phase II A System Design and Development	C/IDIQ	NETPDTC:Pensacola, Fl	0.500	0.000		0.000		0.000		-		0.000	0.000	0.500	0.500
TFMMS Phase I Requirement Analysis	C/FFP	SSC NOLA:New Orleans, LA	0.000	0.000		0.000		0.600	Oct 2013	-		0.600	Continuing	Continuing	Continuing
TFMMS Phase I System Engineering	C/FFP	SSC NOLA:New Orleans, LA	0.000	0.000		0.000		1.700	Oct 2013	-		1.700	Continuing	Continuing	Continuing
NMRS Requirements Analysis	C/CPFF	SSC NOLA:New Orleans, LA	0.000	0.000		0.000		0.700	Oct 2013	-		0.700	Continuing	Continuing	Continuing
NMRS Systems Engineering	C/FFP	SSC NOLA:New Orleans, LA	0.000	0.000		0.000		1.800	Oct 2013	-		1.800	Continuing	Continuing	Continuing
LMS-DL Phase II B System Design and Development	C/CPFF	NETPDTC:Pensacola, FL	0.000	0.000		0.000		2.000	Mar 2014	-		2.000	0.000	2.000	2.000
MNP System Design and Development	C/CPFF	NPRST:Millington, TN	0.000	0.000		0.000		2.800	Dec 2013	-		2.800	0.000	2.800	2.800
NRIS System Engineering	C/FFP	SPAWAR:San Diego, CA	0.000	0.000		0.000		3.392	Mar 2014	-		3.392	Continuing	Continuing	Continuing
BBD Phase II Requirement Analysis	C/FP	SSC NOLA:New Orleans, LA	0.000	0.000		0.000		0.680	Mar 2014	-		0.680	0.000	0.680	0.680
Analysis of Alternative Economic Analysis	C/BA	Unknown:Unknown	0.000	0.000		0.000		0.500	Mar 2014	-		0.500	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2905: *BUPERS IT*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
BBD Phase II System Engineering	C/BA	SSC NOLA:New Orleans, LA	0.000	0.000		0.000		0.680	Mar 2014	-		0.680	Continuing	Continuing	Continuing
BBD Phase II System Design and Development	C/BA	SSC NOLA:New Orleans, LA	0.000	0.000		0.000		2.040	Mar 2014	-		2.040	Continuing	Continuing	Continuing
RHS Requirments Analysis	C/CPFF	SSC NOLA:New Orleans, LA	0.000	0.000		0.000		0.500	Oct 2013	-		0.500	Continuing	Continuing	Continuing
RHS Systems Engineering	C/CPFF	SSC NOLA:New Orleans, LA	0.000	0.000		0.000		1.000	Oct 2013	-		1.000	Continuing	Continuing	Continuing
RMI System Engineering	C/BA	SPAWAR:San Diego, CA	0.000	0.000		0.000		3.000	Mar 2014	-		3.000	0.000	3.000	3.000
		Subtotal	0.500	9.315		22.695		21.392		0.000		21.392			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PRIDE MOD II Interface Development	C/FP	BUPERS:MIllington, TN	0.000	1.200	Sep 2012	0.000		0.000		-		0.000	0.000	1.200	1.200
PRIDE MOD II Government Data Center	C/FP	BUPERS:Millington, TN	0.000	0.600	Sep 2012	0.000		0.000		-		0.000	0.000	0.600	0.600
IPPS-N Prototyping	C/BA	Unknown:Unknown	0.000	0.000		0.500	Jul 2013	0.000		-		0.000	0.000	0.500	0.500
IPPS-N License Tools	C/BA	Unknown:Unknown	0.000	0.000		4.400	Jul 2013	0.000		-		0.000	0.000	4.400	4.400
IPPS-N Enterprise Data Enviornment	C/BA	Unknown:UNknown	0.000	0.000		4.148	Jul 2013	0.000		-		0.000	0.000	4.148	4.148
		Subtotal	0.000	1.800		9.048		0.000		0.000		0.000	0.000	10.848	10.848

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2905: *BUPERS IT*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PRIDE MOD II Test and Evaluation	C/FP	BUPERS:MIllington, TN	0.000	0.200	Sep 2012	0.000		0.000		-		0.000	0.000	0.200	0.200
		Subtotal	0.000	0.200		0.000		0.000		0.000		0.000	0.000	0.200	0.200

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PRIDE MOD II Management	C/BA	BUPERS:MIllington, TN	0.000	0.400	Sep 2012	0.000		0.000		-		0.000	0.000	0.400	0.400
		Subtotal	0.000	0.400		0.000		0.000		0.000		0.000	0.000	0.400	0.400

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.500	11.715		31.743		21.392		0.000		21.392			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 2905: *BUPERS IT*

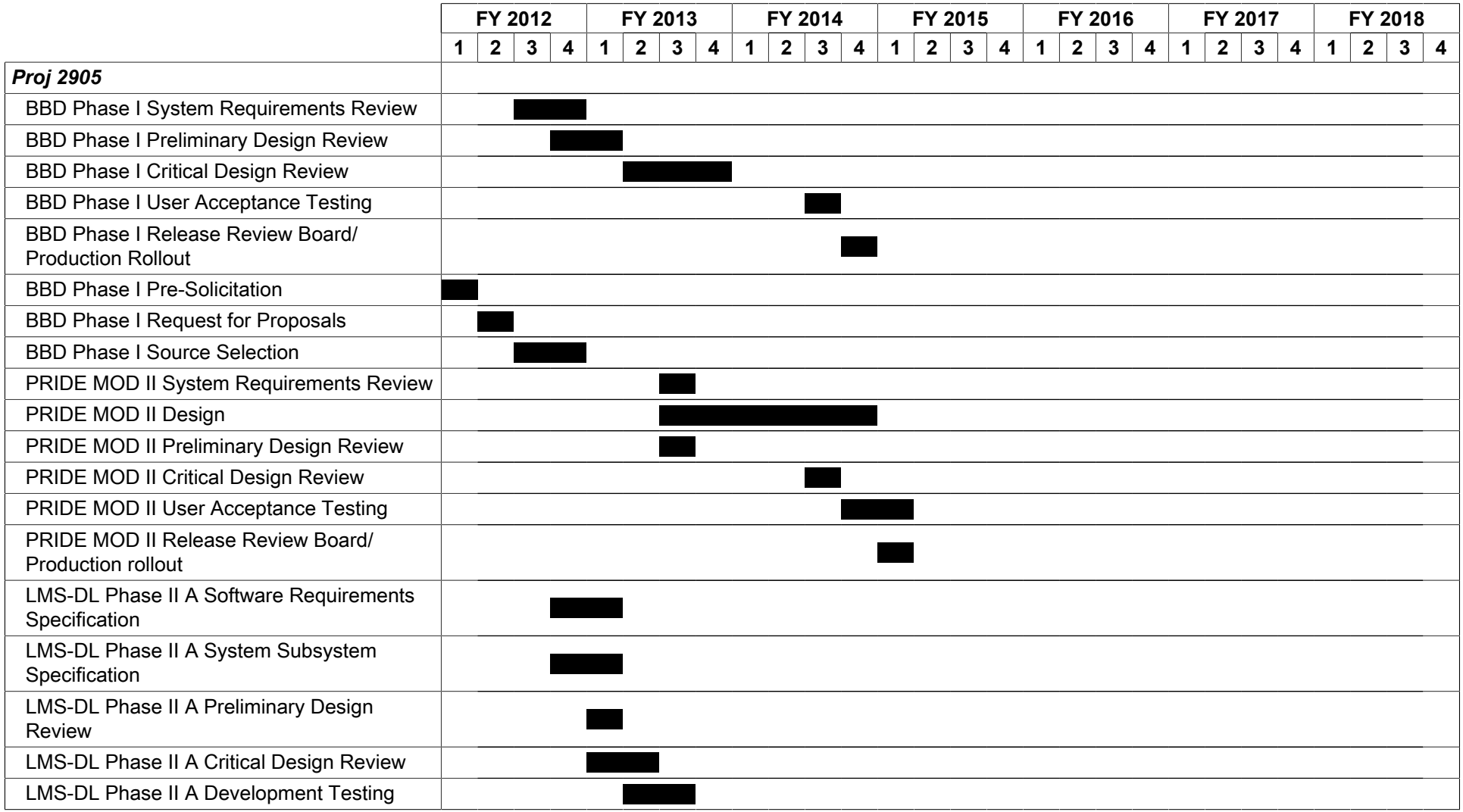


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2905: *BUPERS IT*

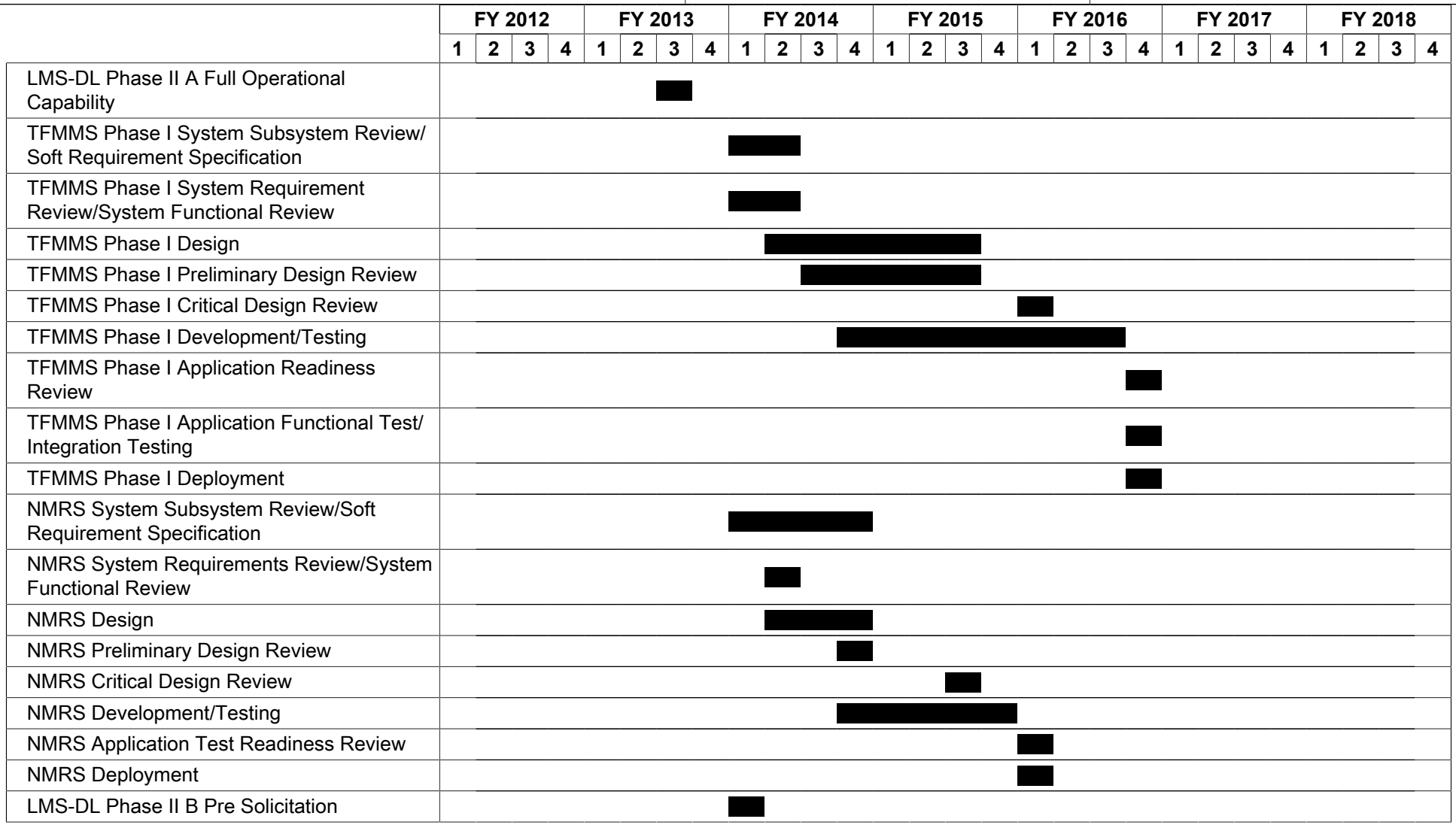


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2905: *BUPERS IT*

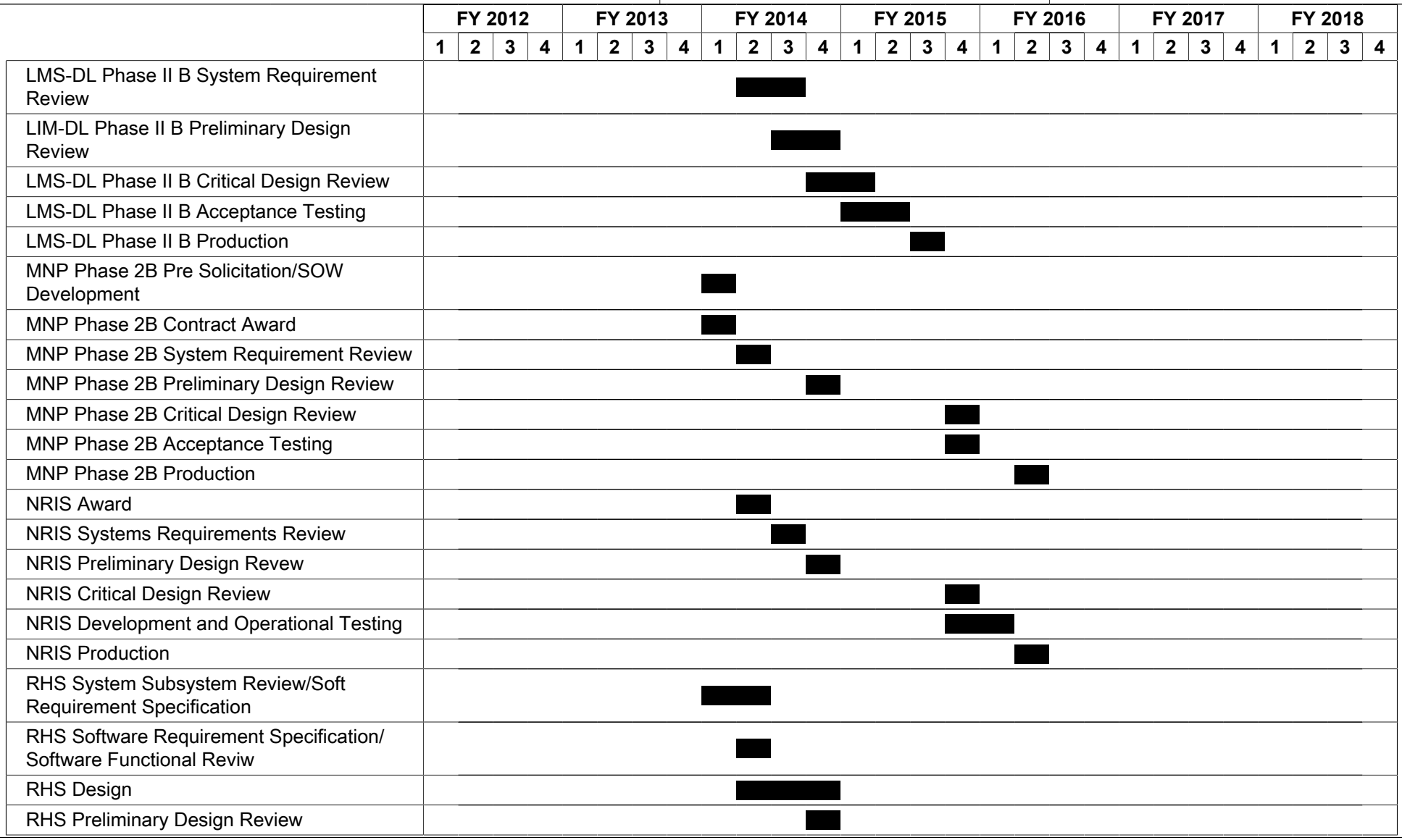


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2905: *BUPERS IT*

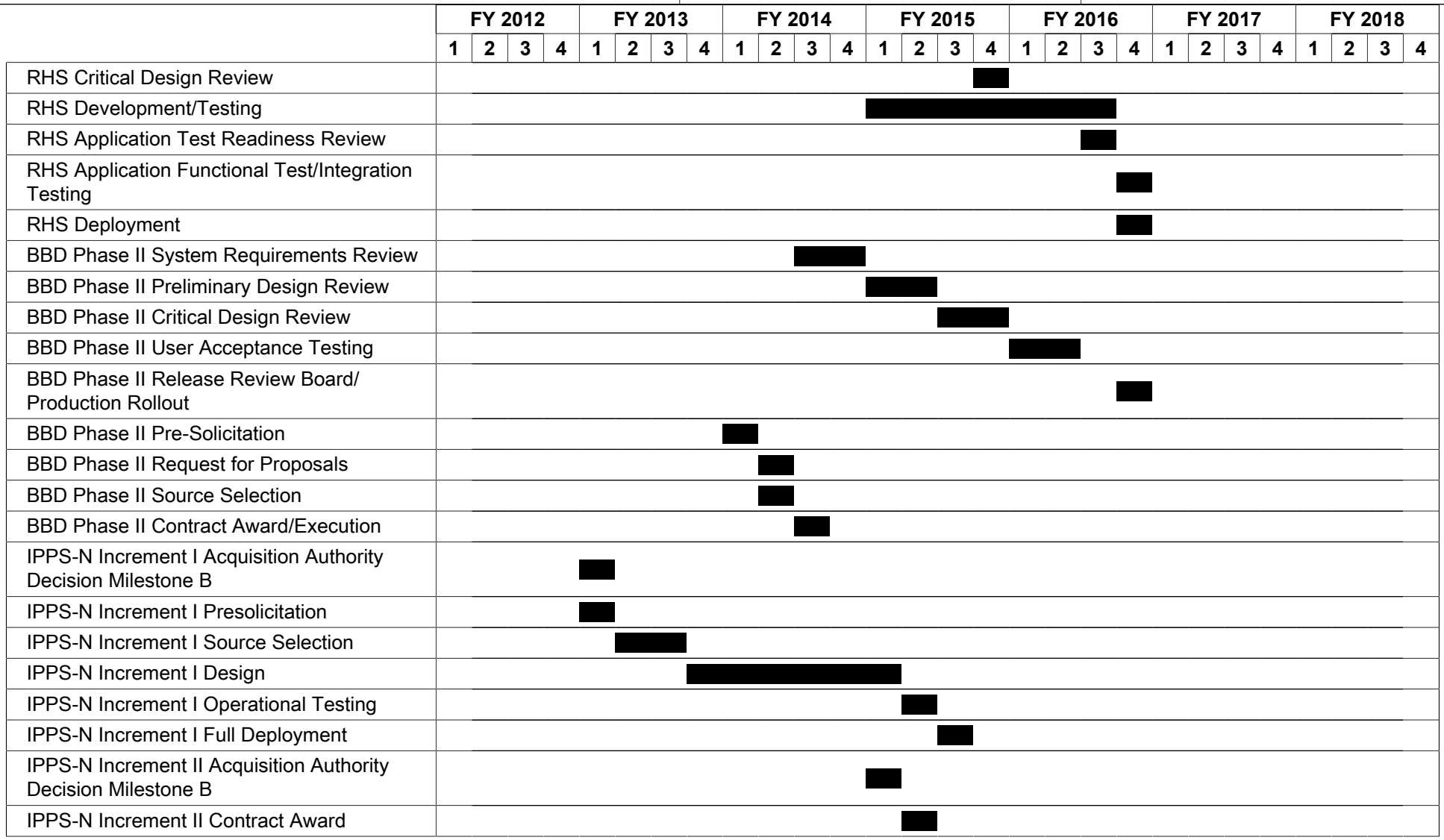


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2905: *BUPERS IT*

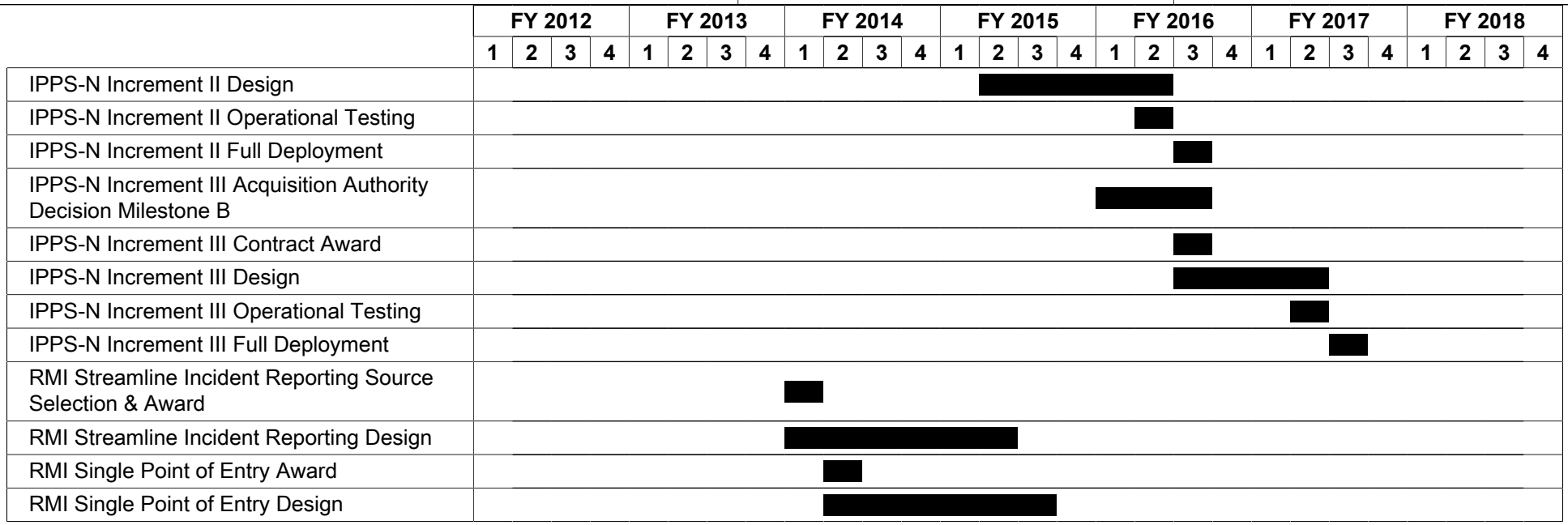


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 2905: *BUPERS IT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2905				
BBD Phase I System Requirements Review	3	2012	4	2012
BBD Phase I Preliminary Design Review	4	2012	1	2013
BBD Phase I Critical Design Review	2	2013	4	2013
BBD Phase I User Acceptance Testing	3	2014	3	2014
BBD Phase I Release Review Board/Production Rollout	4	2014	4	2014
BBD Phase I Pre-Solicitation	1	2012	1	2012
BBD Phase I Request for Proposals	2	2012	2	2012
BBD Phase I Source Selection	3	2012	4	2012
PRIDE MOD II System Requirements Review	3	2013	3	2013
PRIDE MOD II Design	3	2013	4	2014
PRIDE MOD II Preliminary Design Review	3	2013	3	2013
PRIDE MOD II Critical Design Review	3	2014	3	2014
PRIDE MOD II User Acceptance Testing	4	2014	1	2015
PRIDE MOD II Release Review Board/Production rollout	1	2015	1	2015
LMS-DL Phase II A Software Requirements Specification	4	2012	1	2013
LMS-DL Phase II A System Subsystem Specification	4	2012	1	2013
LMS-DL Phase II A Preliminary Design Review	1	2013	1	2013
LMS-DL Phase II A Critical Design Review	1	2013	2	2013
LMS-DL Phase II A Development Testing	2	2013	3	2013
LMS-DL Phase II A Full Operational Capability	3	2013	3	2013
TFMMS Phase I System Subsystem Review/Soft Requirement Specification	1	2014	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2905: *BUPERS IT*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
TFMMS Phase I System Requirement Review/System Functional Review	1	2014	2	2014
TFMMS Phase I Design	2	2014	3	2015
TFMMS Phase I Preliminary Design Review	3	2014	3	2015
TFMMS Phase I Critical Design Review	1	2016	1	2016
TFMMS Phase I Development/Testing	4	2014	3	2016
TFMMS Phase I Application Readiness Review	4	2016	4	2016
TFMMS Phase I Application Functional Test/Integration Testing	4	2016	4	2016
TFMMS Phase I Deployment	4	2016	4	2016
NMRS System Subsystem Review/Soft Requirement Specification	1	2014	4	2014
NMRS System Requirements Review/System Functional Review	2	2014	2	2014
NMRS Design	2	2014	4	2014
NMRS Preliminary Design Review	4	2014	4	2014
NMRS Critical Design Review	3	2015	3	2015
NMRS Development/Testing	4	2014	4	2015
NMRS Application Test Readiness Review	1	2016	1	2016
NMRS Deployment	1	2016	1	2016
LMS-DL Phase II B Pre Solicitation	1	2014	1	2014
LMS-DL Phase II B System Requirement Review	2	2014	3	2014
LIM-DL Phase II B Preliminary Design Review	3	2014	4	2014
LMS-DL Phase II B Critical Design Review	4	2014	1	2015
LMS-DL Phase II B Acceptance Testing	1	2015	2	2015
LMS-DL Phase II B Production	3	2015	3	2015
MNP Phase 2B Pre Solicitation/SOW Development	1	2014	1	2014
MNP Phase 2B Contract Award	1	2014	1	2014
MNP Phase 2B System Requirement Review	2	2014	2	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 2905: *BUPERS IT*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MNP Phase 2B Preliminary Design Review	4	2014	4	2014
MNP Phase 2B Critical Design Review	4	2015	4	2015
MNP Phase 2B Acceptance Testing	4	2015	4	2015
MNP Phase 2B Production	2	2016	2	2016
NRIS Award	2	2014	2	2014
NRIS Systems Requirements Review	3	2014	3	2014
NRIS Preliminary Design Revew	4	2014	4	2014
NRIS Critical Design Review	4	2015	4	2015
NRIS Development and Operational Testing	4	2015	1	2016
NRIS Production	2	2016	2	2016
RHS System Subsystem Review/Soft Requirement Specification	1	2014	2	2014
RHS Software Requirement Specification/Software Functional Reviw	2	2014	2	2014
RHS Design	2	2014	4	2014
RHS Preliminary Design Review	4	2014	4	2014
RHS Critical Design Review	4	2015	4	2015
RHS Development/Testing	1	2015	3	2016
RHS Application Test Readiness Review	3	2016	3	2016
RHS Application Functional Test/Integration Testing	4	2016	4	2016
RHS Deployment	4	2016	4	2016
BBD Phase II System Requirements Review	3	2014	4	2014
BBD Phase II Preliminary Design Review	1	2015	2	2015
BBD Phase II Critical Design Review	3	2015	4	2015
BBD Phase II User Acceptance Testing	1	2016	2	2016
BBD Phase II Release Review Board/Production Rollout	4	2016	4	2016
BBD Phase II Pre-Solicitation	1	2014	1	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 2905: *BUPERS IT*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
BBD Phase II Request for Proposals	2	2014	2	2014
BBD Phase II Source Selection	2	2014	2	2014
BBD Phase II Contract Award/Execution	3	2014	3	2014
IPPS-N Increment I Acquisition Authority Decision Milestone B	1	2013	1	2013
IPPS-N Increment I Presolicitation	1	2013	1	2013
IPPS-N Increment I Source Selection	2	2013	3	2013
IPPS-N Increment I Design	4	2013	1	2015
IPPS-N Increment I Operational Testing	2	2015	2	2015
IPPS-N Increment I Full Deployment	3	2015	3	2015
IPPS-N Increment II Acquisition Authority Decision Milestone B	1	2015	1	2015
IPPS-N Increment II Contract Award	2	2015	2	2015
IPPS-N Increment II Design	2	2015	2	2016
IPPS-N Increment II Operational Testing	2	2016	2	2016
IPPS-N Increment II Full Deployment	3	2016	3	2016
IPPS-N Increment III Acquisition Authority Decision Milestone B	1	2016	3	2016
IPPS-N Increment III Contract Award	3	2016	3	2016
IPPS-N Increment III Design	3	2016	2	2017
IPPS-N Increment III Operational Testing	2	2017	2	2017
IPPS-N Increment III Full Deployment	3	2017	3	2017
RMI Streamline Incident Reporting Source Selection & Award	1	2014	1	2014
RMI Streamline Incident Reporting Design	1	2014	2	2015
RMI Single Point of Entry Award	2	2014	2	2014
RMI Single Point of Entry Design	2	2014	3	2015

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3026: *ERP Convergence*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3026: *ERP Convergence*	0.000	0.500	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Navy Enterprise Resource Planning (ERP) solution is an integrated business management system that modernizes and standardizes Navy's business processes. Navy ERP utilizes best commercial practices to provide real-time information exchange, unprecedented financial and asset visibility, and improved reporting and decision-making capabilities across key acquisition, financial, and logistics operations.

Navy ERP is the tool chosen to meet Congressional mandates to establish and maintain federal financially compliant management systems, federal accounting standards, and U.S. Government General Ledger procedures at the transaction level. The Navy ERP foundation to achieve enterprise-wide business transformation is accomplished through two releases: the Financial/Acquisition Solution and the Single Supply Solution. In October 2008, ASN FM&C designated Navy ERP the Navy's Financial System of Record.

The Navy has overcome a broad range of challenges to successfully deploy financial, acquisition, and workforce management capabilities to all the major acquisition Systems Commands, the Office of Naval Research (ONR), and Strategic Systems Programs (SSP). These commands include over 71,000 users and $62B of the Navy's Total Obligation Authority (TOA). Navy ERP has deployed and stabilized the Single Supply Solution covering all Navy's Material Groups and Fleet Logistic Centers (FLCs) and Partner Sites.

Navy ERP is the financial system of record at all the major acquisition Systems Commands and, with the deployment of the Single Supply Solution to the Naval Inventory Control Points (NAVICPs) and the Fleet Logistic Centers (FLCs) and Partner Sites, provides supply support to both shore-based and operational Fleet units.

Program development completed in FY10; RDTEN funding in FY12 for travel and testing for Operational Test & Evaluation Force to support Navy ERP's Follow-on Test and Evaluation.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: New Accomplishment/Planned Program Entry	0.500	0.000	0.000
Articles:	0		
Description: Program development completed in FY10; RDTEN funding in FY12 to support Navy ERP's Follow-on Test and Evaluation.			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 3026: *ERP Convergence*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: RDTEN funding in FY12 for travel and testing for Operational Test & Evaluation Force to supoort Navy ERP's Follow-on Test and Evaluation.			
Accomplishments/Planned Programs Subtotals	0.500	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN: *8106 Command Support Equipment*	4.390	4.479	1.363		1.363	2.268	0.791	0.808	0.822	Continuing	Continuing

Remarks

D. Acquisition Strategy

Program development completed in FY10; RDTEN funding in FY12 for travel and testing for Operational Test & Evaluation Force to support Navy ERP's Follow-on Test and Evaluation.

E. Performance Metrics

Program development completed in FY10; RDTEN funding in FY12 for travel and testing for Operational Test & Evaluation Force to support Navy ERP's Follow-on Test and Evaluation.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3026: *ERP Convergence*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OPTEVFOR	C/T&M	OPTEVFOR:Norfolk, VA	0.000	0.500	Sep 2013	0.000		0.000		-		0.000	0.000	0.500	
		Subtotal	0.000	0.500		0.000		0.000		0.000		0.000	0.000	0.500	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.500		0.000		0.000		0.000		0.000	0.000	0.500	

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3167: *Joint Technical Data Integration (JTDI)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3167: *Joint Technical Data Integration (JTDI)*	7.796	4.159	8.524	4.996	-	4.996	5.405	5.091	5.386	5.478	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

JTDI Program - Funding supports the evaluation, testing and integration to develop a JTDI Commercial Off-The-Shelf (COTS) solution for installation on Carrier and Amphibious Assault class ships and up to 104 Navy/Marine Corp aviation activities. JTDI is a digital technical data access, delivery and local Organizational & Intermediate level library management toolset and telemaintenance collaboration process enabler. It improves accuracy and timeliness of technical manual and other technical data delivery and minimizes the Fleet's library management burden. JTDI reduces maintenance work hours with a savings Return on Investment of 2.5:1. It facilitates the transition of the Joint Distance Support and Response Advanced Concept Technology Demonstration for telemaintenance and provides for process efficiencies to support ongoing Aviation Fleet Technical Representative reductions.

Marine Aviation Logistics Support Program II (MALSP II) Expeditionary Pack up Kit (EPUK): Funding supports the evaluation, development, testing and integration of software and hardware solutions for expeditionary requisitioning and supply chain management across all US Marine Corp Aviation activities. Marine Aviation Logistics is changing to MALSP II to meet current and future operational requirements - in support of the NAE Strategic Plan, Marine Corps Vision & Strategy 2025, and the USMC Long War Concept. MALSP II will allow aviation logisticians to decrease total infrastructure and resource inventories forward by moving the preponderance of the Maintenance and Supply workload to the CONUS Parent MALS, and reducing the total forward Aviation Logistics footprint (personnel, equipment, facilities and spares). EPUK, as part of Marine Aviation Logistics-Enterprise IT system, is an automated wireless hardware / software solution that is a key enabler in integrating US Marine Corp Aviation Combat Element and Logistics Combat Element logistics systems to make the Marine Air Ground Task Force more responsive, agile, flexible and lethal with the ability to support and sustain operations in austere expeditionary environments and across the Range of Military Operations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: JTDI	1.475	2.183	1.868
Articles:	0	0	0
FY 2012 Accomplishments: Conduct development efforts associated with a major release of fully deployed COTS intensive JTDI system. Conduct COTS requirements definition, evaluation, integration, and testing of annual baseline releases. Conduct technology insertion of the JTDI system.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3167: *Joint Technical Data Integration (JTDI)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Conduct development efforts associated with a major release of fully deployed COTS intensive JTDI system. Conduct COTS requirements definition, evaluation, integration, and testing of annual baseline releases. Conduct technology insertion of the JTDI system. The increase in JTDI FY 13 core RDTE is required to replace critical web based services for Naval Aviation Weapon System Websites and critical technology replacement to maintain equipment readiness across multiple services. ***FY 2014 Plans:*** Conduct development efforts associated with a major release of fully deployed COTS intensive JTDI system. Conduct COTS requirements definition, evaluation, integration, and testing of annual baseline releases. Conduct technology insertion of the JTDI system.			
Title: MALSP II EPUK	2.684	6.341	3.128
Articles:	0	0	0
FY 2012 Accomplishments: Conduct requirements definition, evaluation, integration, and testing of planned software capabilities. Conduct test and evaluation of hardware requirements and network connectivity via satellite communication prior to deployment to the fleet based on a yearly release/maintenance cycle. ***FY 2013 Plans:*** Conduct development efforts with a major release of Next Generation Buffer Management System. Conduct analysis of alternatives, evaluation, integration, and testing of planned software capabilities. Conduct test and evaluation of hardware requirements and network connectivity via satellite communication prior to deployment to the fleet based on a yearly release/ maintenance cycle. ***FY 2014 Plans:*** Continue development efforts of Next Generation Buffer Management System. Conduct evaluation, integration and testing of planned software capabilities. Conduct test and evaluation of hardware requirements and network connectivity via satellite communication prior to deployment to the Fleet based on yearly release/maintenance cycle.			
Accomplishments/Planned Programs Subtotals	4.159	8.524	4.996

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/4265/JTDI: *JTDI Other Aviation Support Equipment*	21.530	4.207	1.647		1.647	1.551	1.164	1.183	3.134	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3167: *Joint Technical Data Integration (JTDI)*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/4265/MALSP II: *Marine Aviation Logistics Support Program (MALSP II) Other Aviation Support Equipment*	0.353	0.913	0.126		0.126	0.486	0.289	2.194	0.299	Continuing	Continuing

Remarks

D. Acquisition Strategy

JTDI Program - The management approach includes the Program Management Office residing in NAVAIR with Milestone Decision Authority (MDA) delegated to the NAVAIR Command Information Officer (CIO). The evolutionary development approach will be used to execute requirements. Contracting for the prime integrator will be via competitively awarded Indefinite Delivery - Indefinite Quantity (IDIQ) contracts.

MALSP II Expeditionary Pack up Kit (EPUK) Program - The management approach includes the Program Management Office residing in the NAVAIR with MDA delegated to the NAVAIR CIO. The evolutionary development approach will be used to execute requirements. Contracting for the prime integrator will be via competitively awarded IDIQ contracts.

E. Performance Metrics

JTDI and MALSP II EPUK Program - Successfully achieve government testing of annual software release.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3167: *Joint Technical Data Integration (JTDI)*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	C/FFP	ARANEA:Huntsville, AL	2.718	1.475	Nov 2011	2.183	Nov 2012	1.868	Nov 2013	-		1.868	Continuing	Continuing	Continuing
Software Development	C/FFP	Various:Various	3.958	0.000		0.000		0.000		-		0.000	0.000	3.958	
Engineering Tech. Sppt	Various	Various:Various	0.055	0.000		0.000		0.000		-		0.000	0.000	0.055	
Software Dev/HW Integration	TBD	TBD:TBD	0.000	2.096	Aug 2012	5.650	Mar 2013	2.416	Mar 2014	-		2.416	Continuing	Continuing	Continuing
		Subtotal	6.731	3.571		7.833		4.284		0.000		4.284			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	C/FFP	Various:Various	0.292	0.182	Nov 2011	0.000		0.000		-		0.000	0.000	0.474	
Developmental Test & Evaluation	WR	SPAWAR:Norfolk, VA	0.182	0.000		0.280	Nov 2012	0.286	Nov 2013	-		0.286	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	NAWCAD:Patuxent River, MD	0.435	0.000		0.000		0.000		-		0.000	0.000	0.435	
		Subtotal	0.909	0.182		0.280		0.286		0.000		0.286			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	DTIC:Fort Belvior, VA	0.010	0.000		0.000		0.000		-		0.000	0.000	0.010	
Program Management Support	WR	DCATS:Fort Monmouth, VA	0.015	0.000		0.000		0.000		-		0.000	0.000	0.015	
Program Management Support	WR	NAWCAD:Patuxent River, MD	0.116	0.175	Nov 2011	0.178	Nov 2012	0.183	Nov 2013	-		0.183	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3167: *Joint Technical Data Integration (JTDI)*	

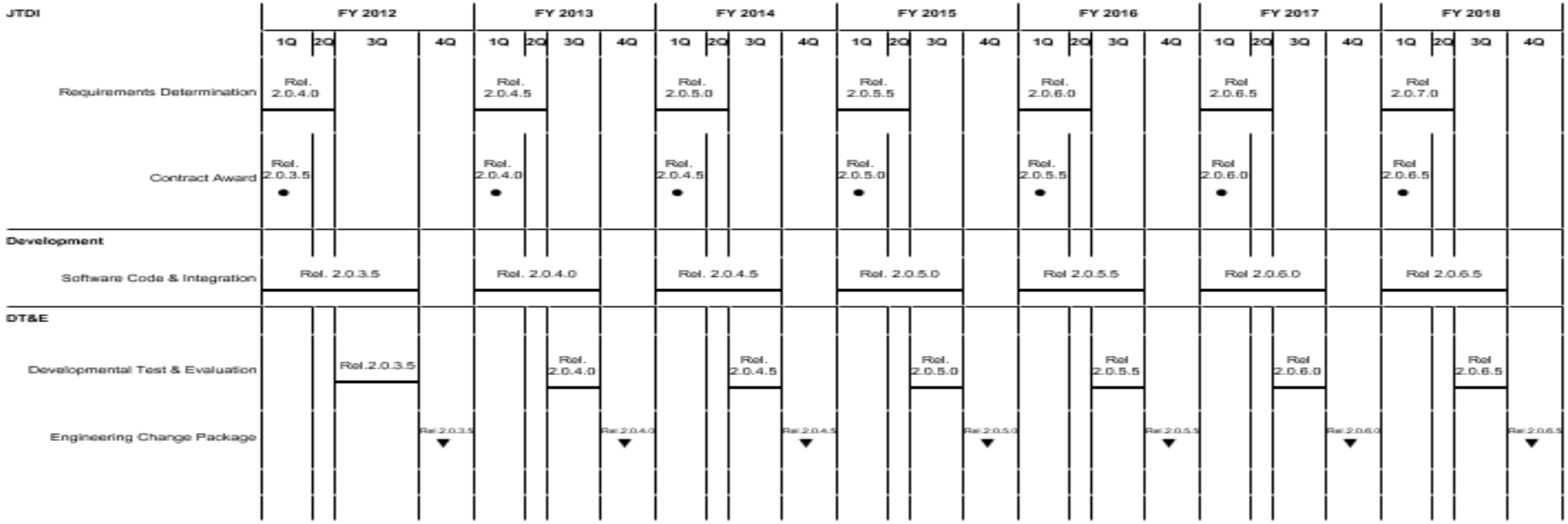
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	WR	SPAWAR:Norfolk, VA	0.000	0.231	Nov 2011	0.233	Nov 2012	0.243	Nov 2013	-		0.243	Continuing	Continuing	Continuing
Travel	Various	Various:Various	0.015	0.000		0.000		0.000		-		0.000	0.000	0.015	
		Subtotal	0.156	0.406		0.411		0.426		0.000		0.426			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	7.796	4.159		8.524		4.996		0.000		4.996			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 3167: *Joint Technical Data Integration (JTDI)*



2014OSD - 0605013N - 3167

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 3167: *Joint Technical Data Integration (JTDI)*

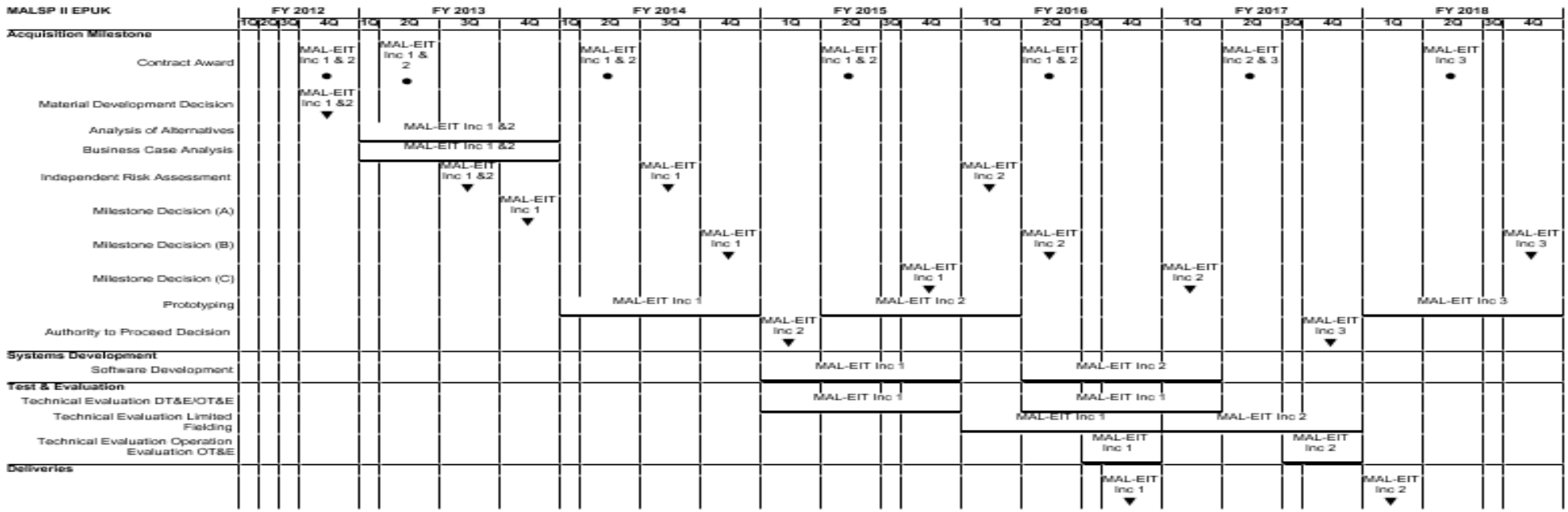


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 3167: *Joint Technical Data Integration (JTDI)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
JTDI				
Requirements Determination: Release 2.0.4.0	1	2012	2	2012
Requirements Determination: Release 2.0.4.5	1	2013	2	2013
Requirements Determination: Release 2.0.5.0	1	2014	2	2014
Requirements Determination: Release 2.0.5.5	1	2015	2	2015
Requirements Determination: Release 2.0.6.0	1	2016	2	2016
Requirements Determination: Release 2.0.6.5	1	2017	2	2017
Requirements Determination: Release 2.0.7.0	1	2018	2	2018
Contract Award: Contract Award, Release 2.0.3.5	1	2012	1	2012
Contract Award: Contract Award, Release 2.0.4.0	1	2013	1	2013
Contract Award: Contract Award, Release 2.0.4.5	1	2014	1	2014
Contract Award: Contract Award, Release 2.0.5.0	1	2015	1	2015
Contract Award: Contract Award, Release 2.0.5.5	1	2016	1	2016
Contract Award: Contract Award, Release 2.0.6.0	1	2017	1	2017
Contract Award: Contract Award, Release 2.0.6.5	1	2018	1	2018
Development: Software Code & Integration: Release 2.0.3.5	1	2012	3	2012
Development: Software Code & Integration: Release 2.0.4.0	1	2013	3	2013
Development: Software Code & Integration: Release 2.0.4.5	1	2014	3	2014
Development: Software Code & Integration: Release 2.0.5.0	1	2015	3	2015
Development: Software Code & Integration: Release 2.0.5.5	1	2016	3	2016
Development: Software Code & Integration: Release 2.0.6.0	1	2017	3	2017
Development: Software Code & Integration: Release 2.0.6.5	1	2018	3	2018

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 3167: *Joint Technical Data Integration (JTDI)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DT&E: Developmental Test & Evaluation: Release 2.0.3.5	3	2012	3	2012
DT&E: Developmental Test & Evaluation: Release 2.0.4.0	3	2013	3	2013
DT&E: Developmental Test & Evaluation: Release 2.0.4.5	3	2014	3	2014
DT&E: Developmental Test & Evaluation: Release 2.0.5.0	3	2015	3	2015
DT&E: Developmental Test & Evaluation: Release 2.0.5.5	3	2016	3	2016
DT&E: Developmental Test & Evaluation: Release 2.0.6.0	3	2017	3	2017
DT&E: Developmental Test & Evaluation: Release 2.0.6.5	3	2018	3	2018
DT&E: Engineering Change Package: Release 2.0.3.5	4	2012	4	2012
DT&E: Engineering Change Package: Release 2.0.4.0	4	2013	4	2013
DT&E: Engineering Change Package: Release 2.0.4.5	4	2014	4	2014
DT&E: Engineering Change Package: Release 2.0.5.0	4	2015	4	2015
DT&E: Engineering Change Package: Release 2.0.5.5	4	2016	4	2016
DT&E: Engineering Change Package: Release 2.0.6.0	4	2017	4	2017
DT&E: Engineering Change Package: Release 2.0.6.5	4	2018	4	2018
MALSP II EPUK				
Acquisition Milestone: Contract Award: Contract Award (1)	4	2012	4	2012
Acquisition Milestone: Contract Award: Contract Award (2)	2	2013	2	2013
Acquisition Milestone: Contract Award: Contract Award (3)	2	2014	2	2014
Acquisition Milestone: Contract Award: Contract Award (4)	2	2015	2	2015
Acquisition Milestone: Contract Award: Contract Award (5)	2	2016	2	2016
Acquisition Milestone: Contract Award: Contract Award (6)	2	2017	2	2017
Acquisition Milestone: Contract Award: Contract Award (7)	2	2018	2	2018
Acquisition Milestone: Material Development Decision: Material Development Decision	4	2012	4	2012
Acquisition Milestone: Analysis of Alternatives: Analysis of Alternatives	1	2013	4	2013
Acquisition Milestone: Business Case Analysis: Business Case Analysis	1	2013	4	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 3167: *Joint Technical Data Integration (JTDI)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Acquisition Milestone: Independent Risk Assessment: Independent Risk Assessment (1)	3	2013	3	2013
Acquisition Milestone: Independent Risk Assessment: Independent Risk Assessment (2)	3	2014	3	2014
Acquisition Milestone: Independent Risk Assessment: Independent Risk Assessment (3)	1	2016	1	2016
Acquisition Milestone: Milestone Decision (A): Milestone A Decision	4	2013	4	2013
Acquisition Milestone: Milestone Decision (B): Milestone B Decision (1)	1	2015	1	2015
Acquisition Milestone: Milestone Decision (B): Milestone B Decision (2)	2	2016	2	2016
Acquisition Milestone: Milestone Decision (B): Milestone B Decision (3)	4	2018	4	2018
Acquisition Milestone: Milestone Decision (C): Milestone C Decision (1)	4	2015	4	2015
Acquisition Milestone: Milestone Decision (C): Milestone C Decision (2)	1	2017	1	2017
Acquisition Milestone: Prototyping: Prototyping (1)	1	2014	4	2014
Acquisition Milestone: Prototyping: Prototyping (2)	2	2015	1	2016
Acquisition Milestone: Prototyping: Prototyping (3)	1	2018	4	2018
Acquisition Milestone: Authority to Proceed Decision: Authority to Proceed Decision (1)	1	2015	1	2015
Acquisition Milestone: Authority to Proceed Decision: Authority to Proceed Decision (2)	4	2017	4	2017
Systems Development: Software Development: Software Development (1)	1	2015	4	2015
Systems Development: Software Development: Software Development (2)	2	2016	1	2017
Test & Evaluation: Technical Evaluation DT&E/OT&E: Technical Evaluation DT&E/ OT&E (1)	1	2015	4	2015
Test & Evaluation: Technical Evaluation DT&E/OT&E: Technical Evaluation DT&E/ OT&E (2)	2	2016	1	2017
Test & Evaluation: Technical Evaluation Limited Fielding: Limited Fielding (1)	1	2016	4	2016
Test & Evaluation: Technical Evaluation Limited Fielding: Limited Fielding (2)	1	2017	4	2017
Test & Evaluation: Technical Evaluation Operation Evaluation OT&E: Operation Evaluation (1)	3	2016	4	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3167: *Joint Technical Data Integration (JTDI)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test & Evaluation: Technical Evaluation Operation Evaluation OT&E: Operation Evaluation (2)	3	2017	4	2017
Deliveries: MAL-EIT Inc 1	4	2016	4	2016
Deliveries: MAL-EIT Inc 2	1	2018	1	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3185: *Joint Airlift Information System (JALIS)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3185: *Joint Airlift Information System (JALIS)*	0.000	0.409	0.377	0.370	-	0.370	0.379	0.386	0.392	0.399	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Joint Air Logistic Information System (JALIS) is a critical element of the DoD CONUS and OCONUS Air Logistics assets. JALIS is an operational scheduling, aircraft management, and data analysis system that allows DoD Service Personnel to submit airlift requirements for DOD Personnel and cargo; air logistics flying units to communicate their aircraft availability in a real time graphic display; and designated scheduling organizations to compare airlift requirements to available aircraft and create mission assignments. Using a combination of system displays and email updates, JALIS informs applicable users of mission details and modifications. Geographically distributed, JALIS has a user base in excess of 4000 members, and moves thousands of DOD Personnel and tons of cargo annually in support of Navy Unique Fleet Essential Airlift, Army's Operational Support Airlift Agency (OSAA), United States Transportation Command (USTRANSCOM), and United States Marine Corps (USMC).

DOD Directive 5400, 43E mandates JALIS as the official DOD Airlift scheduling system; JALIS meets the requirement for multi-service coordinated Air Logistics scheduling as directed by Chairman, Joint Chiefs of Staff. The Navy is designated as lead agency for sponsoring and funding the JALIS program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Joint Air Logistic Information System (JALIS)	0.409	0.377	0.370
Articles:	0	0	0
FY 2012 Accomplishments: Developed post-mission data display, prototype mission sharing and design & develop multi-agency mission display.			
FY 2013 Plans: Develop electronic log, design & develop opportune lift & possible solutions display, graphical maps, and aircraft position map.			
FY 2014 Plans: Incrementally design and develop new JALIS capabilities from prioritized requirements within the Common Movement Management System (CMMS) approved Functional Requirements Document dtd May 2010			
Accomplishments/Planned Programs Subtotals	0.409	0.377	0.370

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3185: *Joint Airlift Information System (JALIS)*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Contract activities will focus on developing the following capabilities:

1. Provide executive management with a more centralized view of Operational Support Aircraft (OSA) aircraft and missions.
2. Design and code more intuitive displays to increase efficiencies and streamline the training of new users.
3. Provide United States Transportation Command (USTRANSCOM) global visibility of OSA assets and maximize aircraft utilization by increasing the efficiency of inter-service scheduling of DoD passengers and cargo worldwide.

E. Performance Metrics

Performance metrics for JALIS include:

1. Increase aircraft utilization by 30%
2. Increase the efficiency of modifying aircraft status by 60%
3. Decrease training requirements for Schedulers by 20%
4. Increase the accuracy of flown flight time data by 90%

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 3185: *Joint Airlift Information System (JALIS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development, Analysis and QA support	C/CPFF	TSM Corp:Bartlett, TN	0.000	0.409	Oct 2011	0.377	Oct 2012	0.370	Oct 2013	-		0.370	Continuing	Continuing	Continuing
		Subtotal	0.000	0.409		0.377		0.370		0.000		0.370			

Remarks

Includes Design, Development, Analysis, Quality Assurance, and test efforts.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.409		0.377		0.370		0.000		0.370			

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9406: *Maintenance Data Warehouse*	0.000	4.985	2.486	9.261	-	9.261	8.868	9.856	10.326	8.463	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Maintenance Data Warehouse/NAVAIR Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) - The development of the DECKPLATE program is the next generation data warehouse for aircraft maintenance, flight, and usage data. It provides a web-based interface to a single source of information currently being stored in multiple Naval Aviation Logistics Data Analysis systems. Through the use of analysis, query, and reporting tools the user has the capabilities to effectively obtain readiness data in a near real-time environment, as well as historical data for trend analysis and records reconstruction. DECKPLATE supports the mission of the warfighter who requires a single source of near real-time aviation data in which to base critical readiness decisions. This requires collecting data from authoritative sources into a data warehouse. Because the warfighter only needs to access one database, the time consuming task of collecting various pieces of data from various sources will be reduced and ultimately eliminated. This improves data quality because it reduces the possibility of two systems providing identical data elements, but slightly different data. Data availability is improved through continuous near real-time feeds from the data sources, giving the warfighter the most current information to base decisions. In addition, this also accomplishes a reduction in legacy systems mandated by Office of the Chief of Naval Operations.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Maintenance Data Warehouse/NAVAIR DECKPLATE	4.985	2.486	9.261
Articles:	0	0	0
FY 2012 Accomplishments: Begin transition of Aircraft Inventory Readiness and Reporting System (AIRRS) and Logistics Management Decision Support System (LMDSS) functionality into DECKPLATE. The transition of AIRRS and LMDSS into DECKPLATE was originally a POM13 issue but was unfunded. DECKPLATE had some of the functionality of these two applications already integrated. Because of requirements to reduce the number of applications, OPNAV elected to fund this integration in FY12 vice FY13 to accelerate the efforts.			
FY 2013 Plans: Continue transition of AIRRS and LMDSS functionality into DECKPLATE and begin transition of Auto Log Set (ALS) functionality into DECKPLATE.			
FY 2014 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue transition of ALS functionality into DECKPLATE and begin transition of OEM/DEPOT functionality. Increase in funding in FY14 is due to POM 14 issues which increased funding for transition of Condition Based Maintenance functionality/Naval Aviation Logistics Command Management Information System into DECKPLATE. Increase in FY14 funding to facilitate the transition of CBM into DECKPLATE was a POM14 issue. CBM is a much more complex application and none of the functionality currently exists in DECKPLATE.			
Accomplishments/Planned Programs Subtotals	4.985	2.486	9.261

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN, 4265: *Other Aviation Support Equipment*	0.445	0.494	1.376		1.376	2.626	2.957	3.008	3.067	Continuing	Continuing

Remarks

D. Acquisition Strategy

Maintenance Data Warehouse/NAVAIR Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) - RDT&E funding to begin in FY12. Development services will be awarded using a competitively awarded contract under the Seaport Contract System containing a matrix of tasks and required levels of performance. Follow on Contract will utilize the same competitive system. The Services provided under the contract support acquisition will not encompass tasks inherently Governmental in nature. The Statement of Work will include a matrix that establishes the minimum acceptable performance standards.

E. Performance Metrics

Maintenance Data Warehouse/NAVAIR DECKPLATE

1. Metric - During the life of the contract verify conformance with agency specific information processing standards and functional requirements. Prior to delivery of enhanced software, demonstrate the operational capability of the system software. Standard - Functionality of the software to meet required systems architecture and processing capabilities. Max Deviation Allowed - All requirements mandated by law or regulation must be 100% compliant. Quality Assurance - Independent Verification and Validation (IV&V) for testing new releases of software to determine that previous functionality is maintained. Customer satisfaction as measured through limited validated customer complaints, feedback, and surveys.
2. Metric - Interfaces must maintain compatibility among system components in the operational environment. Standard - Service Levels for software: Throughput in terms of processing response time, number of transactions processed per second; volume of data processed over time. Compatibility with particular hardware and software within the existing processing environment. Functionality of software to meet required systems architecture and processing capabilities. Max Deviation Allowed - None. Quality Assurance - Customer satisfaction as measured through limited validated customer complaints, feedback and surveys. Operational monitoring by use of system statistics and logs. IV&V for testing new software, including verifying results to determine that requirements and specifications are met.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*

3. Metric - Documentation for deliverables must match the agency specific system processing and operational procedures. Standard - Documentation meets agency specific formats for accuracy and completeness. Max Deviation Allowed - None. Quality Assurance - IV&V for determining that documentation delivered by the contractor matches the system processing and operational procedures.

4. Metric - Meet delivery dates/milestones. Period of Performance will be 12 months from the date of award. Standard - Delivery dates are met, or exceeded. Max Deviation Allowed - None. Quality Assurance - 100% inspection.

5. Metric - Security. Standard - Meet all Government and agency specific requirements. Max Deviation Allowed - None. Quality Assurance - 100% inspection to ensure that all Government and Agency specific requirements have been met. Independent verification of security procedures defined by agency (could be performed by a third party, or another agency according to current security regulations and measures).

6. Metric - Enhancement to software shall not adversely affect system performance. Standard - Standards affecting system performance include but are not limited to: response time for resolving problems; CPU busy; response time; memory utilization; storage utilization. Max Deviation Allowed - Base line functionality is met at 100%. Non critical functionality is met at 95%. Quality Assurance - Operational monitoring by use of system statistics and logs.

7. Metric - New releases of software must maintain previously provided functionality, while providing enhanced capabilities, or systems corrections. Standard - Software adds value and improves existing functionality without negatively impacting the existing operational environment. Max Deviation Allowed - Base line functionality is met at 100%. Non critical functionality is met at 95%. Quality Assurance - Independent Verification and Validation for testing new releases of software to determine that previous functionality is improved. Customer satisfaction is measured through validated customer complaints and surveys.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	C/CPFF	Wyle:Lexington Park, MD	0.000	4.522	Jan 2012	1.931	Nov 2012	5.313	Nov 2013	-		5.313	Continuing	Continuing	Continuing
		Subtotal	0.000	4.522		1.931		5.313		0.000		5.313			

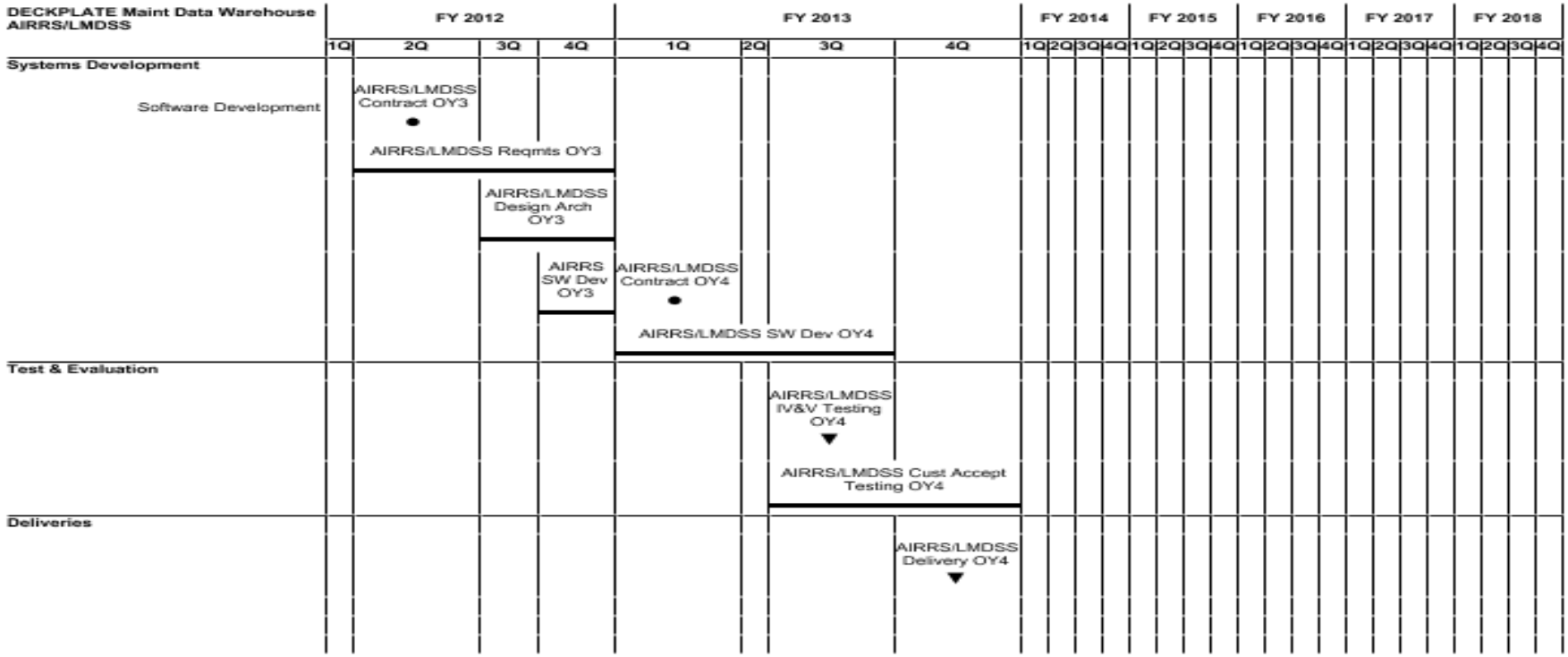
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Supt	WR	NAWCAD:Patuxent River, MD	0.000	0.463	Oct 2011	0.555	Oct 2012	3.948	Oct 2013	-		3.948	Continuing	Continuing	Continuing
		Subtotal	0.000	0.463		0.555		3.948		0.000		3.948			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	4.985		2.486		9.261		0.000		9.261			

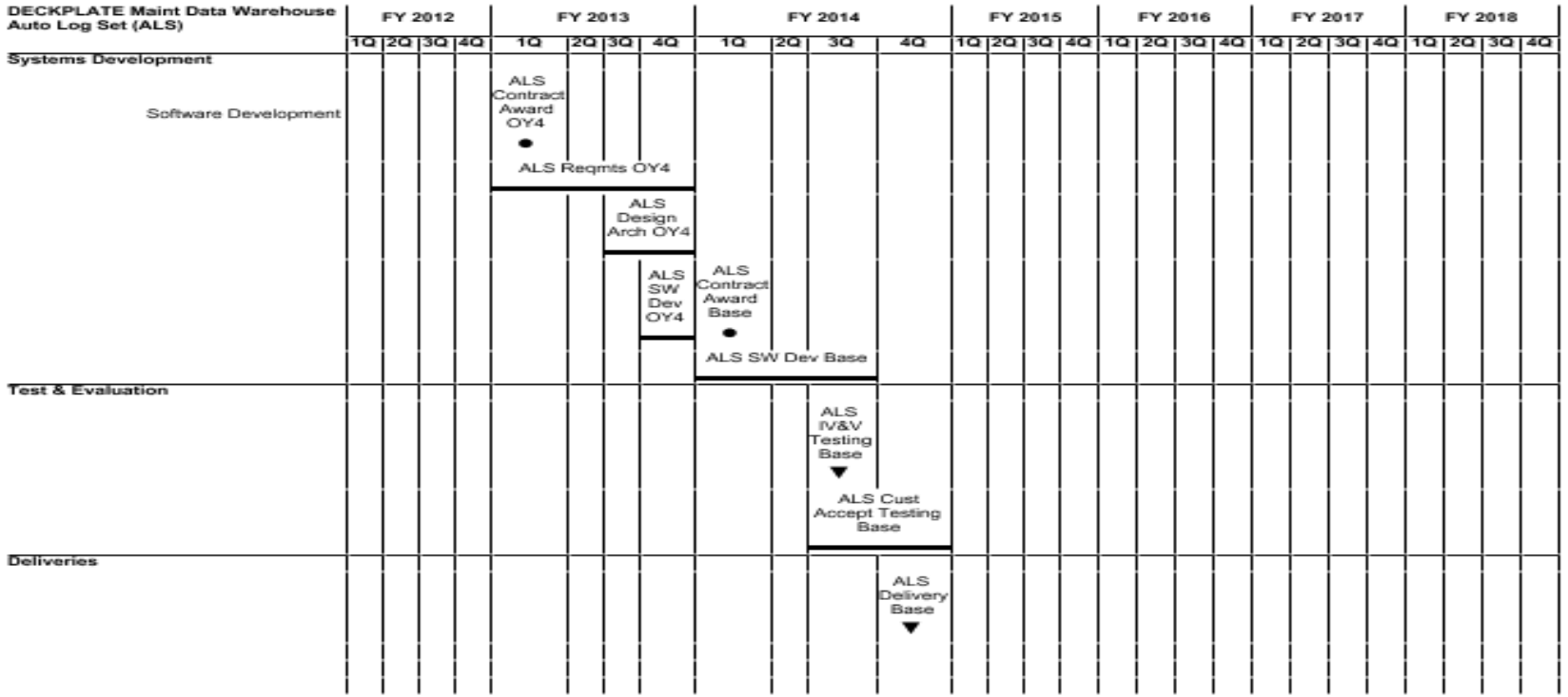
Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*



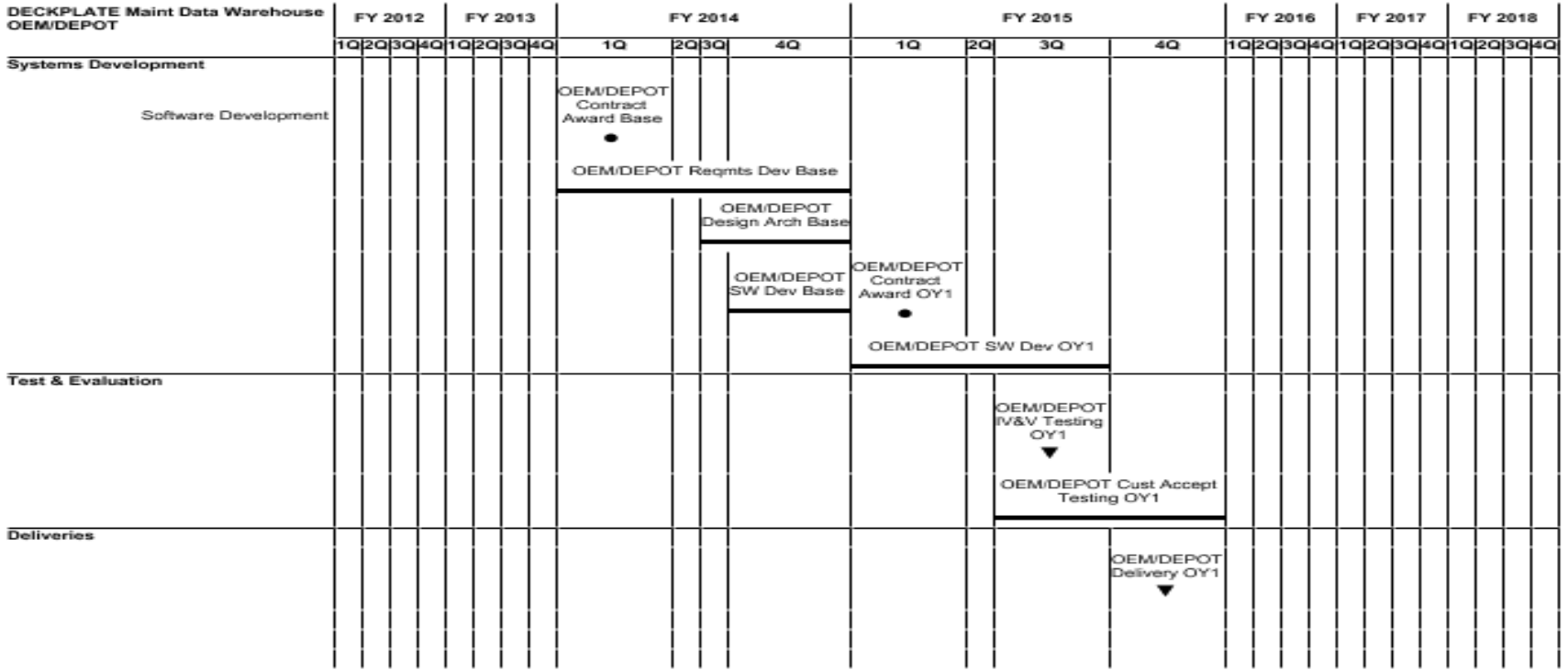
2014OSD - 0605013N - 9406

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*



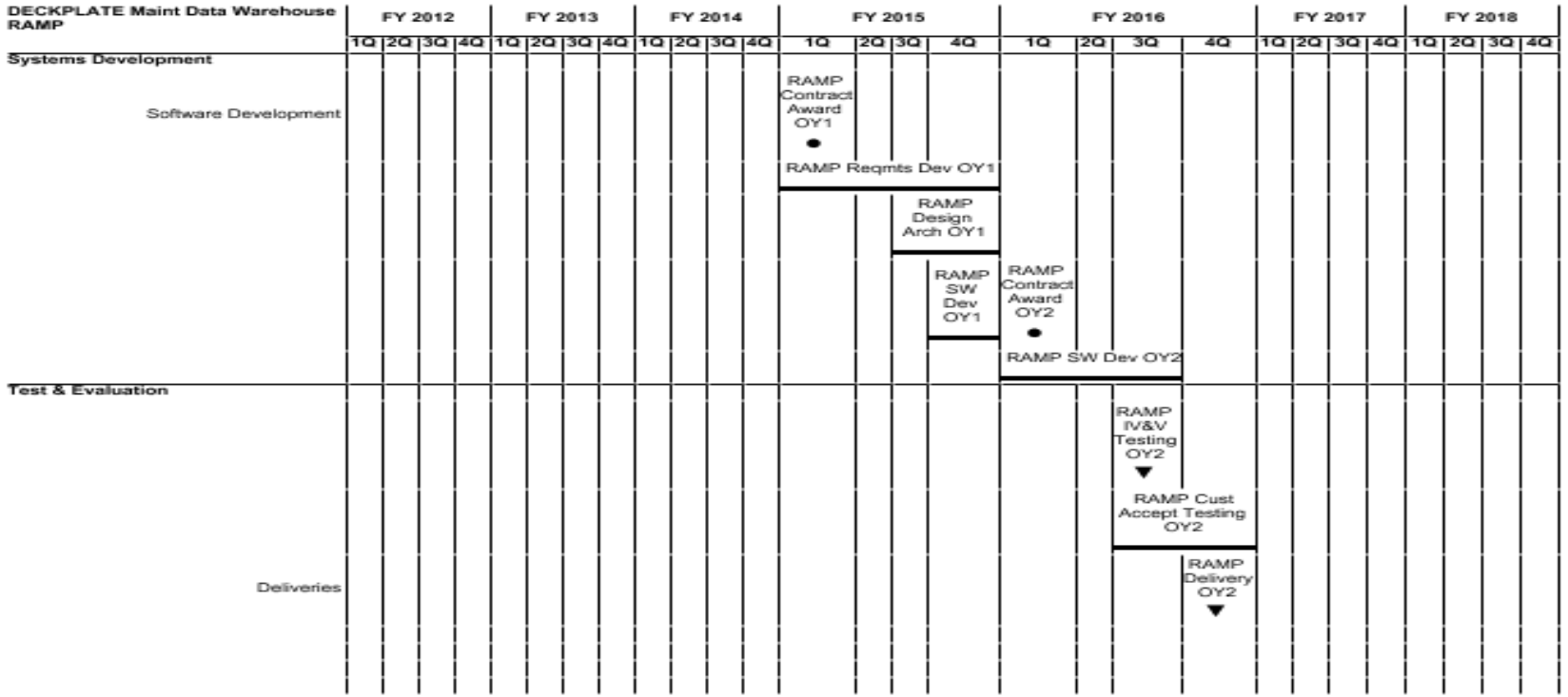
2014OSD - 0605013N - 9406

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 9406: *Maintenance Data Warehouse*



2014OSD - 0605013N - 9406

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*



2014OSD - 0605013N - 9406

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*

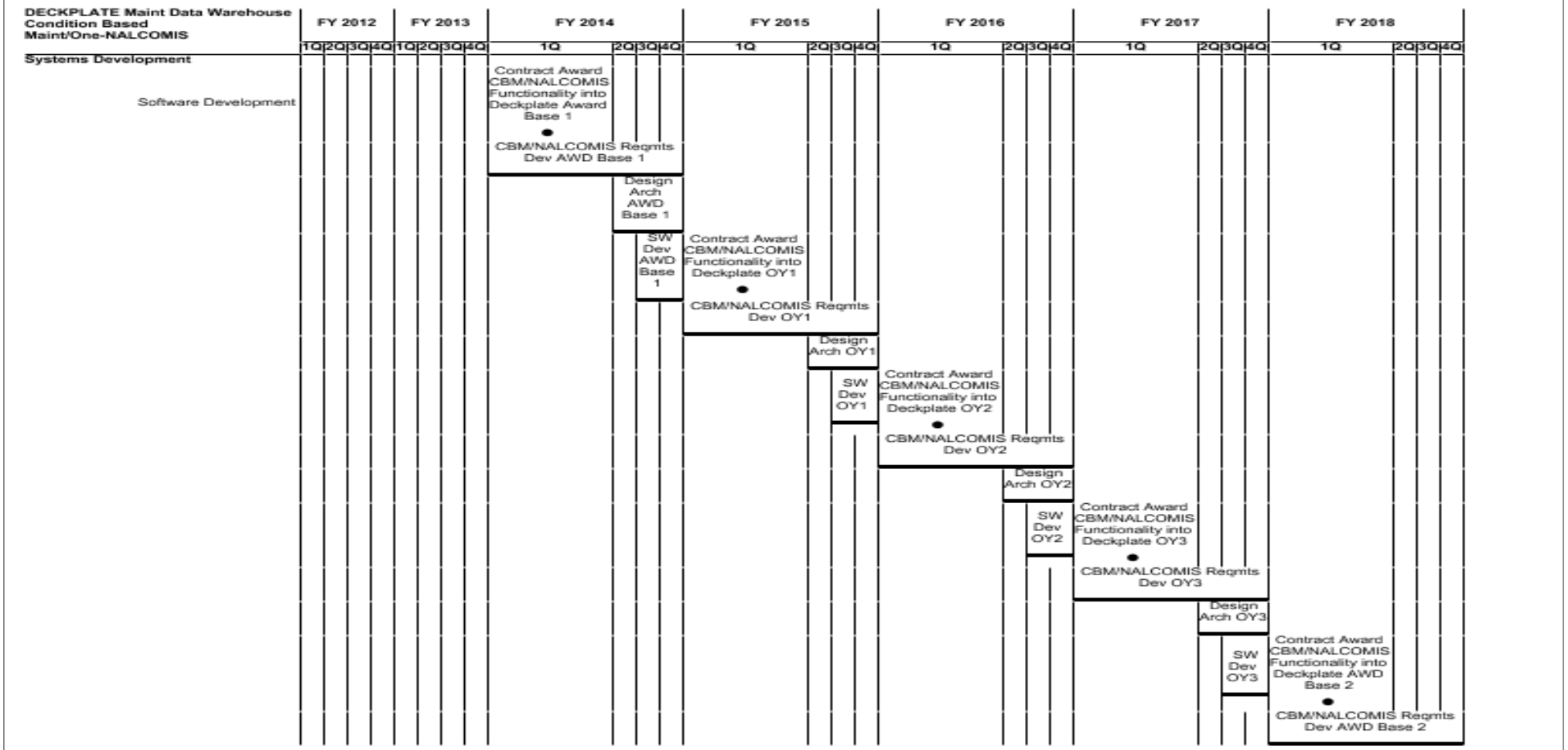
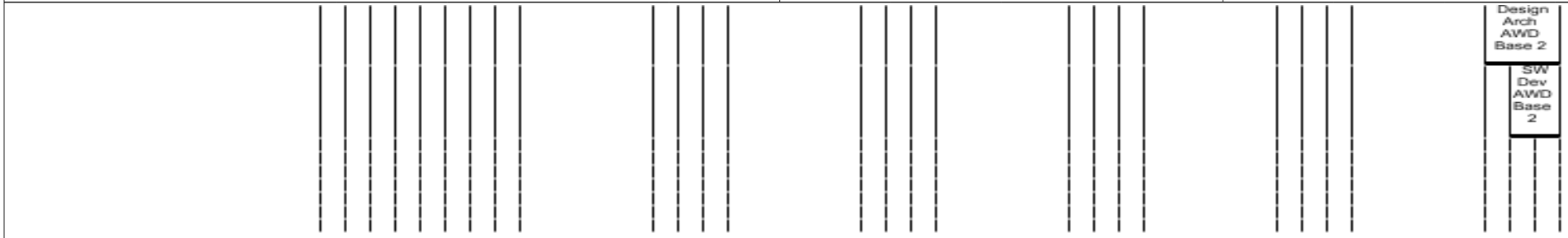


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*



2014OSD - 0605013N - 9406

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 9406: *Maintenance Data Warehouse*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DECKPLATE Maint Data Warehouse AIRRS/LMDSS				
Systems Development: Software Development: Contract Award AIRRS/LMDSS Functionality into DECKPLATE OY3	2	2012	2	2012
Systems Development: Software Development: AIRRS/LMDSS Requirements Development OY3	2	2012	4	2012
Systems Development: Software Development: AIRRS/LMDSS Design & Schema Architecture OY3	3	2012	4	2012
Systems Development: Software Development: AIRRS/LMDSS Software Development OY3	4	2012	4	2012
Systems Development: Software Development: Contract Award AIRRS/LMDSS Functionality into DECKPLATE OY4	1	2013	1	2013
Systems Development: Software Development: AIRRS/LMDSS Software Development OY4	1	2013	3	2013
Test & Evaluation: AIRRS/LMDSS IV&V Testing OY4	3	2013	3	2013
Test & Evaluation: AIRRS/LMDSS Customer Acceptance Testing OY4	3	2013	4	2013
Deliveries: AIRRS/LMDSS Production Release Delivery OY4	4	2013	4	2013
DECKPLATE Maint Data Warehouse Auto Log Set (ALS)				
Systems Development: Software Development: Contract Award ALS Functionality & Reporting into Deckplate OY4	1	2013	1	2013
Systems Development: Software Development: ALS Requirements Development OY4	1	2013	4	2013
Systems Development: Software Development: ALS Design & Schema Architecture OY4	3	2013	4	2013
Systems Development: Software Development: ALS Software Development OY4	4	2013	4	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Systems Development: Software Development: Contract Award ALS Functionality & Reporting into DECKPLATE Base	1	2014	1	2014
Systems Development: Software Development: ALS Software Development Base	1	2014	3	2014
Test & Evaluation: ALS IV&V Testing Base	3	2014	3	2014
Test & Evaluation: ALS Customer Acceptance Testing Base	3	2014	4	2014
Deliveries: ALS Production Release Delivery Base	4	2014	4	2014
DECKPLATE Maint Data Warehouse OEM/DEPOT				
Systems Development: Software Development: Contract Award OEM/DEPOT Reporting into Deckplate Base	1	2014	1	2014
Systems Development: Software Development: OEM/DEPOT Reporting Requirements Development Base	1	2014	4	2014
Systems Development: Software Development: OEM/DEPOT Design & Schema Architecture Base	3	2014	4	2014
Systems Development: Software Development: OEM/DEPOT Software Development Base	4	2014	4	2014
Systems Development: Software Development: Contract Award OEM/DEPOT Reporting into DECKPLATE OY1	1	2015	1	2015
Systems Development: Software Development: OEM/DEPOT Software Development OY1	1	2015	3	2015
Test & Evaluation: OEM/DEPOT IV&V Testing OY1	3	2015	3	2015
Test & Evaluation: OEM/DEPOT Customer Acceptance Testing OY1	3	2015	4	2015
Deliveries: OEM/DEPOT Production Release Delivery OY1	4	2015	4	2015
DECKPLATE Maint Data Warehouse RAMP				
Systems Development: Software Development: Contract Award RAMP Functionality into Deckplate OY1	1	2015	1	2015
Systems Development: Software Development: RAMP Requirements Development OY1	1	2015	4	2015

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605013N: *Information Technology Development*	**PROJECT** 9406: *Maintenance Data Warehouse*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Systems Development: Software Development: RAMP Design & Schema Architecture OY1	3	2015	4	2015
Systems Development: Software Development: RAMP Software Development OY1	4	2015	4	2015
Systems Development: Software Development: Contract Award RAMP Functionality into DECKPLATE OY2	1	2016	1	2016
Systems Development: Software Development: RAMP Software Development OY2	1	2016	3	2016
Test & Evaluation: RAMP IV&V Testing OY2	3	2016	3	2016
Test & Evaluation: RAMP Customer Acceptance Testing OY2	3	2016	4	2016
Test & Evaluation: Deliveries: RAMP Production Release Delivery OY2	4	2016	4	2016
DECKPLATE Maint Data Warehouse Condition Based Maint/One-NALCOMIS				
Systems Development: Software Development: Contract Award CBM/One-NALCOMIS Functionality into Deckplate Award Base 1	1	2014	1	2014
Systems Development: Software Development: CBM/One-NALCOMIS Requirements Development Award Base 1	1	2014	4	2014
Systems Development: Software Development: CBM/One-NALCOMIS Design & Schema Architecture Award Base 1	2	2014	4	2014
Systems Development: Software Development: CBM/One-NALCOMIS Software Development Award Base 1	3	2014	4	2014
Systems Development: Software Development: Contract Award CBM/One-NALCOMIS Functionality into Deckplate OY1	1	2015	1	2015
Systems Development: Software Development: CBM/One-NALCOMIS Requirements Development OY1	1	2015	4	2015
Systems Development: Software Development: CBM/One-NALCOMIS Design & Schema Architecture OY1	2	2015	4	2015
Systems Development: Software Development: CBM/One-NALCOMIS Software Development OY1	3	2015	4	2015
Systems Development: Software Development: Contract Award CBM/One-NALCOMIS Functionality into Deckplate OY2	1	2016	1	2016

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605013N: *Information Technology Development*	PROJECT 9406: *Maintenance Data Warehouse*

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Systems Development: Software Development: CBM/One-NALCOMIS Requirements Development OY2	1	2016	4	2016
Systems Development: Software Development: CBM/One-NALCOMIS Design & Schema Architecture OY2	2	2016	4	2016
Systems Development: Software Development: CBM/One-NALCOMIS Software Development OY2	3	2016	4	2016
Systems Development: Software Development: Contract Award CBM/One-NALCOMIS Functionality into Deckplate OY3	1	2017	1	2017
Systems Development: Software Development: CBM/One-NALCOMIS Requirements Development OY3	1	2017	4	2017
Systems Development: Software Development: ScheCBM/One-NALCOMIS Design & Schema Architecture OY3	2	2017	4	2017
Systems Development: Software Development: CBM/One-NALCOMIS Software Development OY3	3	2017	4	2017
Systems Development: Software Development: Contract Award CBM/One-NALCOMIS Functionality into Deckplate Award Base 2	1	2018	1	2018
Systems Development: Software Development: CBM/One-NALCOMIS Requirements Development Award Base 2	1	2018	4	2018
Systems Development: Software Development: ScheCBM/One-NALCOMIS Design & Schema Architecture Award Base 2	2	2018	4	2018
Systems Development: Software Development: CBM/One-NALCOMIS Software Development Award Base 2	3	2018	4	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0605018N: *(U)Navy Integrated Mil Human Res Sys(N-IMHRS)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	3.400	2.367	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.767
3034: *Future Personnel and Pay Solution*	3.400	2.367	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.767

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

The correct title for the Program is Future Personnel and Pay Solution (FPPS) vice Navy Integrated Military Human Resource System (N-IMHRS). The FPPS program was cancelled at the end of FY12. Funding for Project 3034 has been transferred from PE 0605018N 3034 to PE 0605013N Project 2905 (BUPERS IT Modernization) beginning in FY13 to reflect the Navy's new strategy on the modernization of integrated personnel and pay systems. This transfer realigns the funds to the responsible organization required to execute the strategy approved by the DON Executive Advisory Board (EAB) in July, 2011. This strategy includes Business Process Re-engineering (BPR) defined requirements, modernization/risk reduction of current personnel/pay systems centered around the Navy's Standard Integrated Personnel System (NSIPS), and development of a future pay engine. The effort will now be known as Integrated Personnel and Pay Systems - Navy (IPPS-N).

As part of a FY2012 ATR, funds were realigned from this line into other lines and appropriations.

A. Mission Description and Budget Item Justification

The funding in FY12 was used to procure an TriService PeopleSoft License in conjunction with the Army and the Air Force as a requirement to provide this software capability to all the services in their Human Resource Management portfolios..

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	55.017	0.000	0.000	-	0.000
Current President's Budget	2.367	0.000	0.000	-	0.000
Total Adjustments	-52.650	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-52.650	0.000			
• SBIR/STTR Transfer	-	-			

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605018N: *(U)Navy Integrated Mil Human Res Sys(N-IMHRS)*

Change Summary Explanation

Technical: Not applicable.

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605018N: *(U)Navy Integrated Mil Human Res Sys(N-IMHRS)*	PROJECT 3034: *Future Personnel and Pay Solution*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3034: *Future Personnel and Pay Solution*	3.400	2.367	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.767
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Funding in FY12 was used to procure a TriService PeopleSoft license.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Future Personnel and Pay Solution	2.367	0.000	0.000
Articles:	0		
FY 2012 Accomplishments: Purchased TriService People Soft License.			
Accomplishments/Planned Programs Subtotals	2.367	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A. No acqusition for this program.

E. Performance Metrics

N/A. Program has been terminated.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605018N: *(U)Navy Integrated Mil Human Res Sys(N-IMHRS)*	PROJECT 3034: *Future Personnel and Pay Solution*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Tools and License	C/FP	Unknown:Unknown	3.400	2.367	Mar 2012	0.000		0.000		-		0.000	0.000	5.767	5.767
		Subtotal	3.400	2.367		0.000		0.000		0.000		0.000	0.000	5.767	5.767

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.400	2.367		0.000		0.000		0.000		0.000	0.000	5.767	5.767

Remarks

FY12 funding was used to procure a TriService PeopleSoft License for Integrated Personnel and Pay Systems.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0605212N: *CH-53K*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	2,691.079	606.255	606.204	503.180	-	503.180	597.407	478.226	368.928	184.823	261.766	6,297.868
3059: *CH-53K Development*	2,691.079	606.255	606.204	503.180	-	503.180	597.407	478.226	368.928	184.823	261.766	6,297.868
MDAP/MAIS Code(s): 390												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The CH-53 is the only marinized heavy-lift helicopter in the world and is the Marine Corps only heavy-lift helicopter. The CH-53 mission is the conduct of expeditionary heavy-lift assault transport of armored vehicles, equipment and personnel to support distributed operations deep inland from a sea-based center of operations. The CH-53E "Super Stallion" was introduced into operations in 1980 as an upgrade version of the CH-53D. The CH-53E has developed performance degradation, fatigue life, interoperability, maintenance supportability, and other operational concerns. An improved CH-53 is needed to support Marine Air-Ground Task Force heavy-lift requirements in the 21st century joint environment. The CH-53K will provide improvements in range and payload, performance, cargo handling, turn-around times, reliability and maintainability, interoperability, and survivability. The CH-53K program is required to provide full system capability, including shipboard compatibilities, at Initial Operational Capability (IOC).

Total aircraft quantities for the CH-53K program are 205 helicopters. This includes one Ground Test Vehicle (GTV) and four Engineering Development Models (EDMs) for System Development and Demonstration (SDD), to be purchased with Research, Development, Test & Evaluation (RDT&E) funds. Of the remaining 200 aircraft, four (4) will be System Demonstration Test Articles (SDTA's) and will be incrementally funded using RDT&E funds. The SDTA's will be used to prove out production and integration processes for airworthy helicopters on a pilot production line, and to provide aircraft for Initial Operational Test and Evaluation. The remaining 196 aircraft will be Aircraft Procurement, Navy funded.

FY14 RDT&E efforts focus on CH-53K SDD activities that includes EDM fabrication and assembly, ground and flight test of GTV and EDMs, and continued fabrication of SDTAs and associated components.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production decision.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0605212N: *CH-53K*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	624.461	606.204	534.767	-	534.767
Current President's Budget	606.255	606.204	503.180	-	503.180
Total Adjustments	-18.206	0.000	-31.587	-	-31.587
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.062	0.000			
• SBIR/STTR Transfer	-18.144	0.000			
• Program Adjustments	0.000	0.000	-0.657	-	-0.657
• Rate/Misc Adjustments	0.000	0.000	-30.930	-	-30.930

Change Summary Explanation

Technical: Not applicable.

Schedule: Government Test Vehicle Light Off (GTV) delivery occurred one quarter later than depicted and GTV Light Off moved to 1Q14. This delayed delivery of the GTV was due to late component qualification across the aircraft build. The Delay in delivery of the GTV further delayed the Flight Readiness Review - First Flight and the Production Readiness review, First flight has slid to the right for the same reasons that moved the GTV. The Developmental Test/TECHEVAL period moved to properly align with first flight and the formal commencement of the flight test period.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605212N: *CH-53K*	PROJECT 3059: *CH-53K Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3059: *CH-53K Development*	2,691.079	606.255	606.204	503.180	-	503.180	597.407	478.226	368.928	184.823	261.766	6,297.868
Quantity of RDT&E Articles	0	0	4	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The CH-53 is the only marinized heavy-lift helicopter in the world and is the Marine Corps only heavy-lift helicopter. The CH-53 mission is the conduct of expeditionary heavy-lift assault transport of armored vehicles, equipment and personnel to support distributed operations deep inland from a sea-based center of operations. The CH-53E "Super Stallion" was introduced into operations in 1980 as an upgrade version of the CH-53D. The CH-53E has developed performance degradation, fatigue life, interoperability, maintenance supportability, and other operational concerns. An improved CH-53 is needed to support Marine Air-Ground Task Force heavy-lift requirements in the 21st century joint environment. The CH-53K will provide improvements in range and payload, performance, cargo handling, turn-around times, reliability and maintainability, interoperability, and survivability. The CH-53K program is required to provide full system capability, including shipboard compatibilities, at Initial Operational Capability (IOC).

Total aircraft quantities for the CH-53K program are 205 helicopters. This includes one Ground Test Vehicle (GTV) and four Engineering Development Models (EDMs) for System Development and Demonstration (SDD), to be purchased with Research, Development, Test & Evaluation (RDT&E) funds. Of the remaining 200 aircraft, four (4) will be System Demonstration Test Articles (SDTA's) and will be incrementally funded using RDT&E funds. The SDTA's will be used to prove out production and integration processes for airworthy helicopters on a pilot production line, and to provide aircraft for Initial Operational Test and Evaluation. The remaining 196 aircraft will be Aircraft Procurement, Navy funded.

FY14 RDT&E efforts focus on CH-53K SDD activities that includes EDM fabrication and assembly, ground and flight test of GTV and EDMs, and continued fabrication of SDTAs and associated components.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Air Vehicle Development	541.317	501.187	405.508
Articles:	0	4	0
FY 2012 Accomplishments: Perform SDD fabrication and assembly activities for the CH-53K air vehicles and its associated subsystems and components, Government Furnished Equipment (GFE) and CH-53K ancillary systems.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605212N: *CH-53K*	PROJECT 3059: *CH-53K Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Perform Systems Design and Development fabrication and assembly activities for the CH-53K EDM air vehicles and its associated subsystems and components, GFE and CH-53K ancillary systems. Initiate System Demonstration Test Articles procurement and start aircraft systems ground testing and flight test preparation. ***FY 2014 Plans:*** Perform Systems Design and Development fabrication and assembly activities for the CH-53K Engineering Development Models (EDMs) air vehicles and their associated subsystems and components, Government Furnished Equipment and CH-53K ancillary systems. Focus on ground and flight test of Ground Test Vehicle (GTV) and EDMs and continued fabrication of System Demonstration Test Articles and associated components.			
Title: Integrated Logistics Support and Test & Evaluation (T&E) ***Articles:*** ***FY 2012 Accomplishments:*** Perform in-house, field activity, and contractor support of Integrated Logistic support and T&E activities, including but not limited to planning, preparations, and management of data, support equipment, Studies & Analysis, training elements of CH-53K development, and program T&E efforts. ***FY 2013 Plans:*** Perform in-house, field activity, and contractor support of Integrated Logistic support. T&E activities include further component qualifications and inital GTV testing. Continue to increase staffing of Integrated Test Team in preparation for flight test. ***FY 2014 Plans:*** Perform in-house, field activity, and contractor support of Integrated Logistic support. T&E activities include further component qualifications and ground and flight testing. Continue to increase staffing of Integrated Test Team for flight test.	20.704 0	39.265 0	34.831 0
Title: Systems Engineering & Project Management ***Articles:*** ***FY 2012 Accomplishments:*** In-house, field activitiy, and contractor support of Integrated Product Teams (IPTs) to allow for the preparation of acquisition strategy, examination of equipment and avionics for the CH-53K, and development of acquisition documentation. Efforts include, but are not limited to, government development support, engineering support, program management support, systems engineering support, and travel for the CH-53K program. ***FY 2013 Plans:*** In-house, field activitiy, and contractor support of IPTs to allow for the examination and certification of equipment and avionics for the CH-53K. Efforts include continued component qualification, preparation for Engineering Development Model flight	44.234 0	65.752 0	62.841 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605212N: *CH-53K*	PROJECT 3059: *CH-53K Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
certification, government development support, engineering support, program management support, systems engineering support, and travel for the CH-53K program. ***FY 2014 Plans:*** In-house, field activitiy, and contractor support of Integrated Product Teams to allow for the examination and certification of equipment and avionics for the CH-53K. Efforts include continued component qualification, preparation for Engineering Development Model flight certification, government development support, engineering support, program management support, systems engineering support, and travel for the CH-53K program.			
Accomplishments/Planned Programs Subtotals	606.255	606.204	503.180

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN/0158: *CH-53K (Heavy Lift)*	0.000	0.000	0.000		0.000	47.253	452.300	705.000	1,072.000	19,056.563	21,333.116
• APN//0605: *CH-53K Initial Spares*	0.000	0.000	0.000		0.000	0.000	27.661	44.138	80.970	692.750	845.519

Remarks

D. Acquisition Strategy

On 31 October 2005, the Defense Acquisition Board reviewed the CH-53K program for a Milestone (MS) B decision on entry to Systems Design and Development (SDD). The Under Secretary of the Defense (Acquisition, Technology and Logistics) signed the Acquisition Decision Memorandum allowing the program to proceed with SDD on 22 December 2005. The CH-53K program was initiated as an Acquisition Category 1D program, based on total estimated costs for Research, Development, Test and Evaluation and Aircraft Procurement, Navy. The SDD prime contract was awarded sole-source contract to Sikorsky Aircraft Corporation on 5 April, 2006, following the MS B decision. SDD efforts will develop and document technology maturations, selections, and integration into CH-53E design modifications for a new CH-53K variant; produce one CH-53K Ground Test Vehicle and four CH-53K Engineering Developmental Models; and conduct and support Test and Evaluation activities fulfilling milestone exit criteria. In FY13, the SDD contract will be modified to include four System Demonstration Test Articles. Engines will be procured in support of test assets which have been converted from Contractor Furnished Equipment to Government Furnished Equipment.

E. Performance Metrics

Since MS B, the program team has followed a disciplined, event-driven, design and development process. The program completed Preliminary Design Review in September 2008 and conducted Critical Design Review in July 2010. System meets or exceeds all Key Performance Parameters.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605212N: *CH-53K*	PROJECT 3059: *CH-53K Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPIF	Sikorsky:Stratford, CT	2,231.295	507.233	Dec 2011	445.023	Dec 2012	373.069	Dec 2013	-		373.069	1,363.339	4,919.959	4,919.959
Government Furnished Equipment	Various	Various:Various	30.072	11.300	Dec 2011	30.000	Dec 2012	2.000	Dec 2013	-		2.000	7.000	80.372	
Government Furnished Equipment	C/CPIF	GE:Lynn, MA	0.000	0.000		8.000	Apr 2013	8.000	Dec 2013	-		8.000	77.895	93.895	93.895
Incentive Fees	SS/CPIF	Sikorsky:Stratford, CT	11.286	22.784	Sep 2012	18.164	Dec 2012	22.439	Dec 2013	-		22.439	23.030	97.703	97.703
Prior year Prod Dev cost no longer funded in the FYDP	Various	Various:Various	73.400	0.000		0.000		0.000		-		0.000	0.000	73.400	
		Subtotal	2,346.053	541.317		501.187		405.508		0.000		405.508	1,471.264	5,265.329	

Remarks

Award Fee earned prior to contract conversion was fifty-five percent of the available award fee pool.
Cost Plus Award Fee (CPAF) to Cost Plus Incentive Fee (CPIF) contract conversion awarded 31 Mar 11.
Primary Hardware Development Target Value of Contract includes System Demonstration Test Articles (SDTA's).

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	Various	NAWCAD:Lakehurst, NJ	0.000	0.000		4.552	Dec 2012	4.737	Dec 2013	-		4.737	24.384	33.673	
Integrated Logistics Support	WR	NAWCAD:Lakehurst, NJ	4.000	3.100	Dec 2011	4.800	Dec 2012	5.100	Dec 2013	-		5.100	21.700	38.700	
Integrated Logistics Support	WR	NADEP:Cherry Point, NC	2.000	2.200	Dec 2011	2.950	Dec 2012	3.000	Dec 2013	-		3.000	15.300	25.450	
Integrated Logistics Support	WR	Various:Various	34.904	5.835	Dec 2011	2.750	Dec 2012	2.294	Dec 2013	-		2.294	26.538	72.321	
Studies & Analyses	WR	NSWC:Crane, IN	2.000	0.500	Dec 2011	5.000	Dec 2012	1.000	Dec 2013	-		1.000	0.000	8.500	
Studies & Analyses	Various	Various:Various	21.627	0.000	Dec 2011	1.300	Dec 2012	0.500	Dec 2013	-		0.500	3.500	26.927	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	64.531	11.635		21.352		16.631		0.000		16.631	91.422	205.571	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	Various:Various	10.382	1.464	Dec 2011	6.213	Dec 2012	6.700	Dec 2013	-		6.700	32.656	57.415	
Developmental Test & Evaluation	WR	NAWCAD:Pax River, MD	0.000	6.234	Dec 2011	6.180	Dec 2012	6.500	Dec 2013	-		6.500	8.000	26.914	
Operational Test & Evaluation	WR	COMPTEVFOR:Norfolk, VA	1.095	0.524	Dec 2011	4.000	Dec 2012	2.000	Dec 2013	-		2.000	35.000	42.619	
Live Fire Test & Evaluation	WR	NAWCWD:China Lake, CA	2.549	0.847	Dec 2011	1.520	Dec 2012	3.000	Dec 2013	-		3.000	18.100	26.016	
		Subtotal	14.026	9.069		17.913		18.200		0.000		18.200	93.756	152.964	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	Various:Various	12.075	1.850	Dec 2011	2.930	Dec 2012	2.537	Dec 2013	-		2.537	9.500	28.892	
Government Engineering Support	WR	NAWCAD:Pax River, MD	180.420	30.392	Dec 2011	46.101	Dec 2012	44.483	Dec 2013	-		44.483	162.155	463.551	
Program Management Support	C/CPFF	Camber:MD	11.000	11.000	Dec 2011	11.500	Dec 2012	11.000	Dec 2013	-		11.000	20.500	65.000	65.000
Program Management Support	Various	Various:Various	58.102	0.752	Dec 2011	4.844	Dec 2012	4.535	Dec 2013	-		4.535	40.051	108.284	
Travel	WR	NAWCAD:Pax River, MD	2.922	0.240	Dec 2011	0.377	Dec 2012	0.286	Dec 2013	-		0.286	2.500	6.325	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605212N: *CH-53K*	PROJECT 3059: *CH-53K Development*

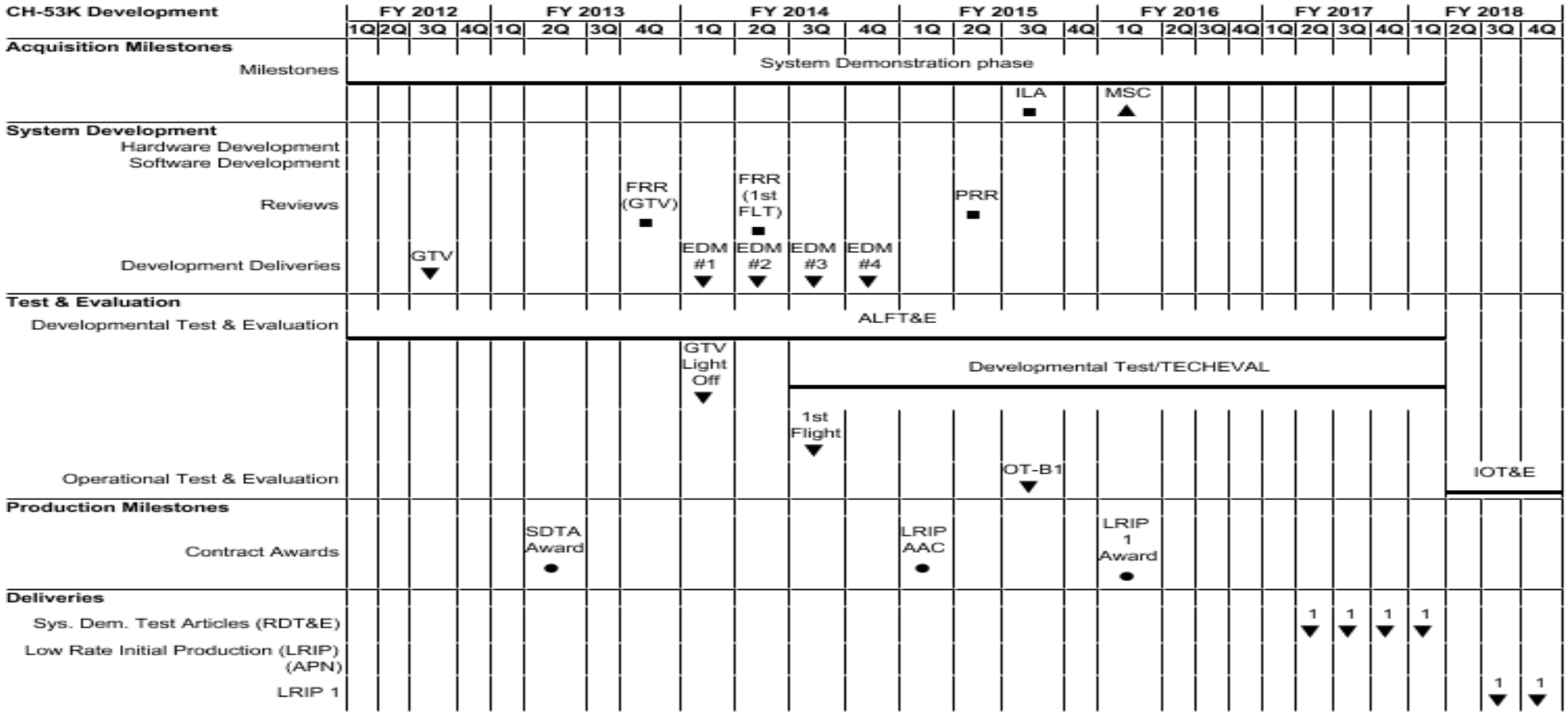
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior year Mgmt cost no longer funded in the FYDP	Various	Various:Various	1.950	0.000		0.000		0.000		-		0.000	0.000	1.950	
		Subtotal	266.469	44.234		65.752		62.841		0.000		62.841	234.706	674.002	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2,691.079	606.255		606.204		503.180		0.000		503.180	1,891.148	6,297.866	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605212N: *CH-53K*	PROJECT 3059: *CH-53K Development*



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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605212N: *CH-53K*	**PROJECT** 3059: *CH-53K Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
CH-53K Development				
Acquisition Milestones: Milestones: System Demonstration phase	1	2012	1	2018
Acquisition Milestones: Milestones: Integrated Logistics Assessment (ILA)	3	2015	3	2015
Acquisition Milestones: Milestones: Milestone C	1	2016	1	2016
System Development: Reviews: Flight Readiness Review (FRR) - Ground Test Vehicle (GTV)	4	2013	4	2013
System Development: Reviews: Flight Readiness Review (FRR) - 1st Flight	2	2014	2	2014
System Development: Reviews: Production Readiness Review (PRR)	2	2015	2	2015
System Development: Development Deliveries: Ground Test Vehicle (GTV) Delivery	3	2012	3	2012
System Development: Development Deliveries: Engineering Development Model (EDM) #1 delivery	1	2014	1	2014
System Development: Development Deliveries: Engineering Development Model (EDM) #2 delivery	2	2014	2	2014
System Development: Development Deliveries: Engineering Development Model (EDM) #3 delivery	3	2014	3	2014
System Development: Development Deliveries: Engineering Development Model (EDM) #4 delivery	4	2014	4	2014
Test & Evaluation: Developmental Test & Evaluation: Alternative Live Fire T&E (ALFT&E) (Comp.)	1	2012	1	2018
Test & Evaluation: Developmental Test & Evaluation: Developmental Test / TECHEVAL	3	2014	1	2018
Test & Evaluation: Developmental Test & Evaluation: GTV Light Off	1	2014	1	2014
Test & Evaluation: Developmental Test & Evaluation: First Flight	3	2014	3	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605212N: *CH-53K*	PROJECT 3059: *CH-53K Development*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Test & Evaluation: Operational Test & Evaluation: Operational Test & Evaluation (OT) B1 (OT-B1)	3	2015	3	2015
Test & Evaluation: Operational Test & Evaluation: IOT&E	2	2018	4	2018
Production Milestones: Contract Awards: System Demonstration Test Articles (SDTA) Award	2	2013	2	2013
Production Milestones: Contract Awards: LRIP Advance Acquisition Contract	1	2015	1	2015
Production Milestones: Contract Awards: LRIP 1 Contract Award	1	2016	1	2016
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) *1	2	2017	2	2017
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) *2	3	2017	3	2017
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) *3	4	2017	4	2017
Deliveries: Sys. Dem. Test Articles (RDT&E): System Demonstration Test Articles (SDTA) #4	1	2018	1	2018
Deliveries: LRIP 1: LRIP Aircraft (APN) 3Q 2018	3	2018	3	2018
Deliveries: LRIP 1: LRIP Aircraft (APN) 4Q 2018	4	2018	4	2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605450N: *Joint Air-to-ground Missile (JAGM)*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	202.425	108.395	0.000	5.500	-	5.500	0.000	0.000	0.000	0.000	0.000	316.320
2211: *Joint Air-to-Ground Missile*	202.425	108.395	0.000	5.500	-	5.500	0.000	0.000	0.000	0.000	0.000	316.320

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Joint Air-to-Ground Missile (JAGM) is an Army-lead, close-air-support missile program that will utilize multi-mode seeker technology and be employed against land and maritime targets. JAGM will provide advanced line-of-sight and beyond line-of-sight capabilities, including precision point and fire and forget targeting, increased range, and increased lethality against soft and hardened moving and stationary targets. On March 20, 2012, the Defense Acquisition Executive approved an incremental acquisition approach to the JAGM requirement while considering affordability. The restructure also designated the AH-1Z helicopter as the sole USN/USMC threshold platform. DoN FY14 efforts include initial AH-1Z platform integration, development of technologies that extend missile range, test planning, and Joint cost and schedule planning for MS B and EMD.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	108.395	0.000	0.000	-	0.000
Current President's Budget	108.395	0.000	5.500	-	5.500
Total Adjustments	0.000	0.000	5.500	-	5.500
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	0.000	0.000	5.500	-	5.500

Change Summary Explanation

The USN/USMC is addressing future EMD and LRIP funding requirements in the POM-15 budget cycle.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605450N: *Joint Air-to-ground Missile (JAGM)*	PROJECT 2211: *Joint Air-to-Ground Missile*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2211: *Joint Air-to-Ground Missile*	202.425	108.395	0.000	5.500	-	5.500	0.000	0.000	0.000	0.000	0.000	316.320
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Joint Air-to-Ground Missile (JAGM) is an Army-lead, close-air-support missile program that will utilize multi-mode seeker technology and be employed against land and maritime targets. JAGM will provide advanced line-of-sight and beyond line-of-sight capabilities, including precision point and fire and forget targeting, increased range, and increased lethality against soft and hardened moving and stationary targets. On March 20, 2012, the Defense Acquisition Executive approved an incremental acquisition approach to the JAGM requirement while considering affordability. The restructure also designated the AH-1Z helicopter as the sole USN/USMC threshold platform. DoN FY14 efforts include initial AH-1Z platform integration, development of technologies that extend missile range, test planning, and Joint cost and schedule planning for MS B and EMD. The USN/USMC is addressing future EMD and LRIP funding requirements in the POM-15 budget cycle.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: JAGM Technology Development (TD) Phase	108.395	0.000	5.500
Articles:	0		0
FY 2012 Accomplishments: Funding in FY12 was utilized to reduce the Navy JAGM team to the minimum personnel and efforts required in FY12/FY13 to stay aligned with the Army's execution of the JAGM TD phase. The Navy intends to apply any remaining funds towards other higher Navy priorities.			
FY 2014 Plans: FY14 funding will go toward initial AH-1Z platform integration, development of technologies that extend missile range, test planning, and Joint cost and schedule planning for MS B and EMD.			
Accomplishments/Planned Programs Subtotals	108.395	0.000	5.500

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDT&E ARMY, 0605450A: *JAGM*	126.895	10.000	10.000		10.000	9.800	0.000	0.000	0.000	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605450N: *Joint Air-to-ground Missile (JAGM)*	PROJECT 2211: *Joint Air-to-Ground Missile*

D. Acquisition Strategy

The Joint Air-to-Ground Missile (JAGM) system is a pre-Acquisition Category 1C Joint Army/Navy program with the Army designated as lead service. The Army is continuing technology development efforts with a planned MS B milestone in FY15.

E. Performance Metrics

The Army is continuing execution of the JAGM Technology Development phase.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605450N: *Joint Air-to-ground Missile (JAGM)*	PROJECT 2211: *Joint Air-to-Ground Missile*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NAWCWD:China Lake, CA	43.412	1.922	Nov 2012	0.000		1.500	Oct 2013	-		1.500	0.000	46.834	
Aircraft Integration	WR	NAWCAD:Patuxent River, MD	4.395	0.465	Nov 2012	0.000		0.500	Oct 2013	-		0.500	0.000	5.360	
Aircraft Integration (AH-1Z)	WR	NAWCWD:China Lake, CA	0.000	0.250	Mar 2013	0.000		1.700	Jan 2014	-		1.700	0.000	1.950	
Funds are on Hold pending Recission Decision	TBD	TBD:TBD	0.000	105.034	Sep 2013	0.000		0.000		-		0.000	0.000	105.034	
Prior year cost no longer funded in the FYDP	Various	Various:Various	83.304	0.000		0.000		0.000		-		0.000	0.000	83.304	
		Subtotal	131.111	107.671		0.000		3.700		0.000		3.700	0.000	242.482	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	NAWCWD:China Lake, CA	13.007	0.200	Mar 2013	0.000		0.000		-		0.000	0.000	13.207	
Integrated Logistics Support	WR	NAWCWD:China Lake, CA	1.602	0.000		0.000		0.300	Dec 2013	-		0.300	0.000	1.902	
Prior year cost no longer funded in the FYDP	Various	Various:Various	11.446	0.000		0.000		0.000		-		0.000	0.000	11.446	
		Subtotal	26.055	0.200		0.000		0.300		0.000		0.300	0.000	26.555	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	WR	NAWCWD:China Lake, CA	8.172	0.250	Mar 2013	0.000		0.000		-		0.000	0.000	8.422	
Test & Evaluation	Various	Various:Various	11.865	0.000		0.000		0.700	Dec 2013	-		0.700	0.000	12.565	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605450N: *Joint Air-to-ground Missile (JAGM)*	PROJECT 2211: *Joint Air-to-Ground Missile*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior year cost no longer funded in the FYDP	Various	Various:Various	8.125	0.000		0.000		0.000		-		0.000	0.000	8.125	
		Subtotal	28.162	0.250		0.000		0.700		0.000		0.700	0.000	29.112	

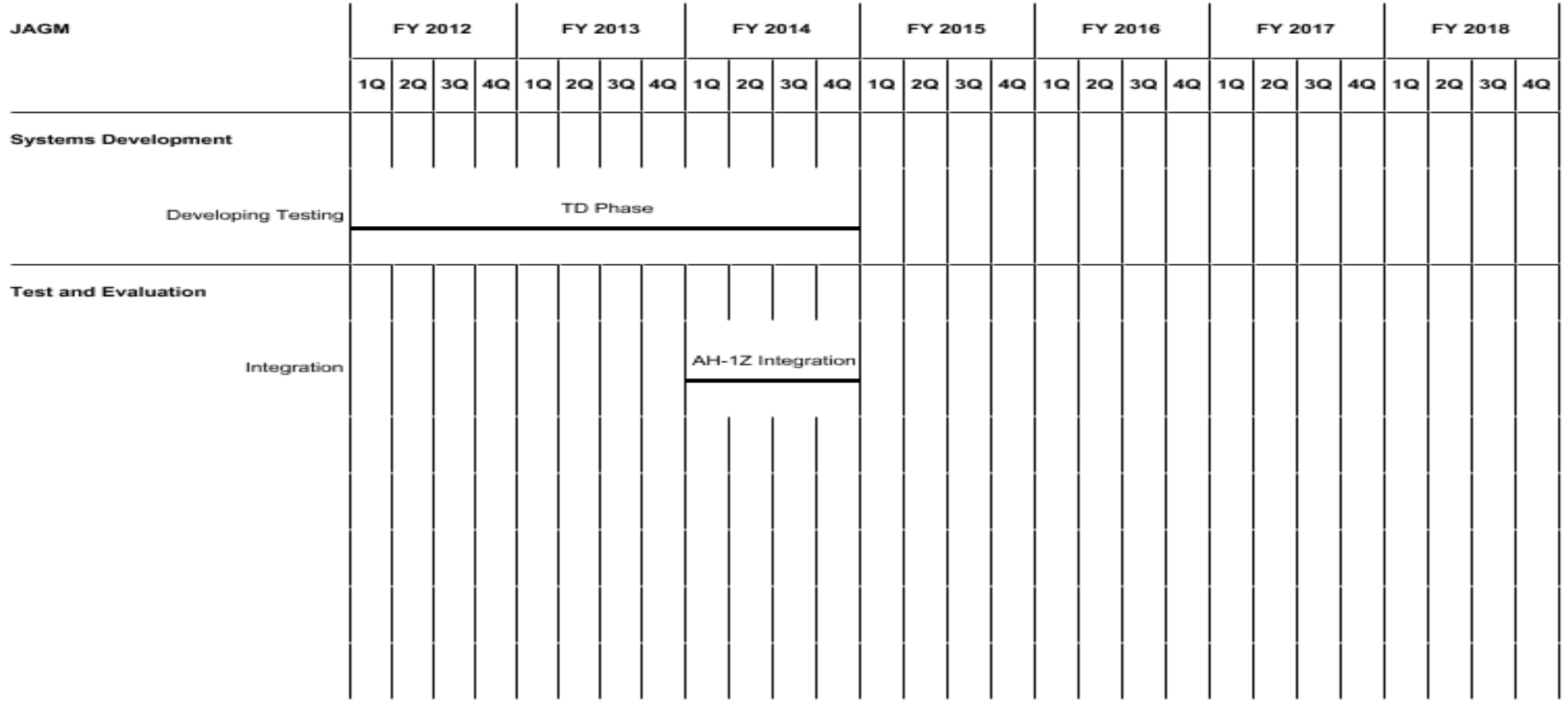
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contr Eng Supt - ETS (NONFFRDC)	Various	Various:Various	7.200	0.214	Nov 2012	0.000		0.600	Jan 2014	-		0.600	0.000	8.014	
Travel-Internal	WR	NAWCAD:Patuxent River, MD	0.300	0.060	Nov 2012	0.000		0.200	Oct 2013	-		0.200	0.000	0.560	
Prior year cost no longer funded in the FYDP	Various	Various:Various	9.597	0.000		0.000		0.000		-		0.000	0.000	9.597	
		Subtotal	17.097	0.274		0.000		0.800		0.000		0.800	0.000	18.171	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	202.425	108.395		0.000		5.500		0.000		5.500	0.000	316.320	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605450N: *Joint Air-to-ground Missile (JAGM)*	PROJECT 2211: *Joint Air-to-Ground Missile*



2014PB - 0605450N - 2211

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605450N: *Joint Air-to-ground Missile (JAGM)*	**PROJECT** 2211: *Joint Air-to-Ground Missile*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
JAGM				
Test and Evaluation: Integration: AH-1Z Integration	1	2014	4	2014
Systems Development: Developing Testing: TD Phase	1	2012	4	2014

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	6,637.136	595.532	421.102	317.358	-	317.358	356.817	228.890	214.093	195.076	Continuing	Continuing
2696: *Multi-Mission Maritime Aircraft*	6,604.439	550.268	341.621	185.217	-	185.217	163.599	48.509	25.410	10.692	0.000	7,929.755
3181: *P-8A Spiral One Development*	30.762	31.170	58.149	54.144	-	54.144	64.817	21.339	0.000	0.000	0.000	260.381
3218: *P-8A Spiral 2 Development*	1.935	4.094	21.332	77.997	-	77.997	128.401	159.042	188.683	184.384	Continuing	Continuing
9999: *Congressional Adds*	0.000	10.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.000
MDAP/MAIS Code(s): 334												

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The P-8A Multi-mission Maritime Aircraft will replace the aging P-3 aircraft. The P-8A program was initiated in response to the Joint Requirements Oversight Council (JROC) validated Mission Needs Statement, "Broad Area Maritime and Littoral Armed Intelligence, Surveillance and Reconnaissance" and the requirements for the program are defined in the P-8A Capability Production Document #791-88-09, validated and approved on 22 June 2009. A successful Critical Design Review was completed in June 2007. In August 2007 the Design Readiness Review was conducted and resulted in approval to obligate funding for the fabrication of the Stage II flight test aircraft. The Interim Program Review (IPR) was completed on 7 April 2009 based on release of Acquisition Decision Memorandum. The first flight of P-8A occurred on 25 Apr 2009. Milestone (MS) C was successfully completed on 11 August 2010.

The primary objectives of Systems Development and Demonstration (SDD) are to: perform the system detailed design, develop and produce Systems Integration Labs, develop and build ground and flight test articles, conduct ground and flight tests and prepare for milestones. Ground testing includes the conduct of static testing, fatigue testing and Live Fire Test and Evaluation. Six flight test aircraft have been built during SDD. These test aircraft are grouped into two stages based on which phase of the test program the aircraft will support. SDD Stage I flight test aircraft (FY06/Qty-3) support Integrated Test and Evaluation (IT&E). SDD Stage II flight test aircraft (FY09/Qty-3) support the completion of IT&E and Initial Operational Test and Evaluation (IOT&E) after being updated to the production configuration. The SDD contract includes the development and initial builds of training devices to support IOT&E. The scope of SDD includes activities necessary to facilitate an efficient transition of the fleet to achieve the P-8A Initial Operational Capability (IOC) of Increment 1 in CY13. The scope of SDD also includes the engineering and verification of correction of deficiencies identified in testing. P-8A entered Production and Deployment development phase in the 4th quarter of FY10 after completing MS-C Defense Acquisition Board.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*

P-8A program is based on an evolutionary acquisition strategy consisting of sequential incremental enhancements to system capabilities that will retain cost-wise effectiveness for winning major combat operations beyond 2020. In order to pace the threat, Increment 2, the Next Phase of Capabilities, will incorporate the following capabilities into the P-8A: Multi-Static Active Coherent (MAC), Automatic Identification System, Rapid Capabilities Insertion (RCI), updates to the Tactical Operations Center (TOC), as well as additional Anti-Submarine Warfare (ASW), Anti-Surface Warfare (ASuW) and Intelligence Surveillance and Reconnaissance capabilities as Engineering Change Proposals (ECPs). The scope of this effort includes the integration, design, and test of the capability enhancements to the P-8A and associated Tactical Operations Center ground support facilities and initial trainers. Integration of these capabilities will be accomplished incrementally, based on the scope of the integration effort.

As part of the P-8A evolutionary acquisition strategy, Increment 3 will incorporate the capabilities defined in the Capabilitiy Development Document approved by JROC on 25 June 2010. In order to pace the threat, the Increment 3 will incorporate the following capabilities into the P-8A: MAC, RCI, updates to the TOC, as well as additional ASW, ASuW and Intelligence Surveillance and Reconnaissance capabilities. These capabilities and other emergent capability requirements will be investigated during the Technology Development phase of Increment 3 for the P-8A and Tactical Operations Center (ground support facility).

Budget Activity 5.
JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	618.684	421.102	269.733	-	269.733
Current President's Budget	595.532	421.102	317.358	-	317.358
Total Adjustments	-23.152	0.000	47.625	-	47.625
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-5.558	0.000			
• SBIR/STTR Transfer	-17.594	0.000			
• Program Adjustments	0.000	0.000	48.269	-	48.269
• Rate/Misc Adjustments	0.000	0.000	-0.644	-	-0.644

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Project: 9999: *Congressional Adds*		
Congressional Add: *Small Business Technology Insertion*	10.000	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Congressional Add Subtotals for Project: 9999	10.000	0.000
Congressional Add Totals for all Projects	10.000	0.000

Change Summary Explanation

Technical: Not applicable.

Schedule:

Project 2696: Although Operational Test has initiated, offical start of Initial Operational Test & Evaluation was moved to 4Q FY12 due to continued inefficiencies in Integrated Test & Evaluation execution. LRIP-3 moved from 3Q FY12 to 4Q FY12 and FRP Decision, FRP Contract Award and FRP have moved from 3Q FY13 to 4Q FY13.

Project 3181: Based on current program profile, Technology Development Risk Reduction effort end date was moved from 2Q FY12 to 1Q FY13, Integration Engineering Manufacturing & Development (EMD) effort start date was moved from 3Q FY12 to 1Q FY13 and Integration EMD contract award was moved from 3QFY12 to 1Q FY13. Changed Retrofit Kits to Retrofit Kits Engineering Change Proposal (ECP1). Kit Delivery start date was moved from 2Q FY15 to 3Q FY14.

Project 3218: Based on current program profile, MS-B changed from 3Q FY15 to 3Q FY16, Engineering Manufacturing & Development (EMD) start moved from 3Q FY15 to 3Q FY16, Contract Award (EMD) moved from 3Q FY15 to 3Q FY16, Preliminary Design Review PDR moved from 1Q FY15 to 1Q FY16 and Critical Design Review CDR moved from 4Q FY16 to 1Q FY17.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2696: *Multi-Mission Maritime Aircraft*	6,604.439	550.268	341.621	185.217	-	185.217	163.599	48.509	25.410	10.692	0.000	7,929.755
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The P-8A Multi-mission Maritime Aircraft (MMA) will replace the aging P-3 aircraft. The P-8A program was initiated in response to the Joint Requirements Oversight Council (JROC) validated Mission Needs Statement (MNS), "Broad Area Maritime and Littoral Armed Intelligence, Surveillance and Reconnaissance" and the requirements for the program are defined in the P-8A Capability Production Document (CPD) #791-88-09, validated and approved on 22 June 2009. A successful Critical Design Review was completed in June 2007. In August 2007 the Design Readiness Review was conducted and resulted in approval to obligate funding for the fabrication of the Stage II flight test aircraft. The Interim Program Review was completed on 7 April 2009 based on release of Acquisition Decision Memorandum. The first flight of P-8A occurred on 25 Apr 2009. Milestone (MS) C was successfully completed on 11 August 2010.

The primary objectives of System Development and Demonstration (SDD) are to: perform the system detailed design, develop and produce Systems Integration Labs, develop and build ground and flight test articles, conduct ground and flight tests and prepare for milestones. Ground testing includes the conduct of static testing, fatigue testing and Live Fire Test and Evaluation. Six flight test aircraft have been built during SDD. These test aircraft are grouped into two stages based on which phase of the test program the aircraft will support. SDD Stage I flight test aircraft (FY06/Qty-3) support Integrated Test and Evaluation (IT&E). SDD Stage II flight test aircraft (FY09/Qty-3) support the completion of IT&E and Initial Operational Test and Evaluation (IOT&E) after being updated to the production configuration. The SDD contract includes the development and initial builds of training devices to support IOT&E. The scope of SDD includes activities necessary to facilitate an efficient transition of the fleet to achieve the P-8A Initial Operational Capability of Increment 1 in CY13. The scope of SDD also includes the engineering and verification of correction of deficiencies identified in testing. P-8A entered Production and Deployment development phase in the 4th quarter of FY10 after completing MS-C Defense Acquisition Board.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Continue System Development & Demonstration	485.946	308.943	162.015
Articles:	0	0	0
FY 2012 Accomplishments: SDD Phase. Scope of effort included: design, develop and test P-8A aircraft, avionics, mission systems, Systems Integration Labs (SILs), ground and flight test articles (SDD Stage I, FY06, Qty-3; SDD Stage II, FY09, Qty-3), other test articles, associated Tactical Operations Center (TOC) updates, and development and initial builds of training devices to support IOT&E. Conducted			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
the periodic cost and schedule performance reviews associated with Earned Value Management and prepared and conducted technical, test and logistic reviews. ***FY 2013 Plans:*** SDD phase. Scope of effort includes: design and test P-8A SIL, ground and flight test articles (SDD Stage I, FY06, Qty-3; SDD Stage II, FY09, Qty-3), other test articles, associated TOC systems, and training devices to support continuation of engineering for correction of deficiencies and Follow On Test & Evaluation (FOT&E) and verification of correction of deficiencies. Conduct the periodic cost and schedule performance reviews associated with Earned Value Management (EVM) and prepare and conduct technical, test and logistic reviews. ***FY 2014 Plans:*** SDD phase. Scope of effort includes: ground and flight test articles (SDD Stage I, FY06, Qty-3; SDD Stage II, FY09, Qty-3), other test articles, associated TOC Systems, and training devices to support continuation of engineering for correction of deficiencies and FOT&E and verification of correction of deficiencies. Conduct the periodic cost and schedule performance reviews associated with EVM and prepare and conduct technical, test and logistic reviews.			
Title: Continue Engineering and Technical Development and Test for Sys Dev & Demonstration contracts	64.322	32.678	23.202
Articles:	0	0	0
FY 2012 Accomplishments: Continued analysis of contracted deliverables; directed technical and logistic support of system development and delivery; assessed contractors readiness to proceed in design/development; evaluated contract cost, schedule, and performance; tested preparations, provided necessary government furnished equipment and tested articles, assessed risk mitigation; program control; performance status; and planned and prepared for future Milestone/Decision Reviews and developed associated documentation. Modeling & Simulation tools developed to assess proposed risk mitigations. Conducted and supported Integrated Test & Evaluation (IT&E), Initial Operational Test & Evaluation (IOT&E) and Live Fire Test & Evaluation (LFT&E). ***FY 2013 Plans:*** Continue analysis of contracted deliverables; direct technical and logistic support of system development and delivery; assessment of contractors readiness to proceed in design/development; evaluate contract cost, schedule, and performance; test preparations, provide necessary government furnished equipment and test articles, risk assessment/mitigation; program control; performance status; and plan and prepare for future Milestone/Decision Reviews and develop associated documentation. Modeling & Simulation tools will be developed to assess proposed risk mitigations. Conduct and support IT&E, IOT&E, LFT&E and Follow-On Test & Evaluation (FOT&E). ***FY 2014 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continue analysis of contracted deliverables; direct technical and logistic support of system development test aircraft; engineering for correction of deficiencies; verification of correction of deficiencies; evaluate contract cost, schedule, and performance; test preparations, provide necessary government furnished equipment and test articles, risk assessment/mitigation; program control; and performance status. Conduct and support IT&E and FOT&E.			
Accomplishments/Planned Programs Subtotals	550.268	341.621	185.217

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN1/0193: *P-8A MMA*	2,253.691	2,746.434	3,503.149		3,503.149	3,627.933	3,341.806	2,790.552	2,173.871	1,766.600	25,917.974
• APN6/0605: *P-8A Initial Spares*	62.307	90.691	21.858		21.858	18.265	2.300	27.342	0.000	0.000	426.561
• MILCON: *P-8A MILCON*	31.239	0.000	105.919		105.919	117.707	69.324	0.000	0.000	0.000	330.106

Remarks

D. Acquisition Strategy

The MMA Milestone 0 was approved 22 March 2000 and the resulting Acquisition Decision Memorandum directed P-8A to begin the Concept Exploration phase consisting of an Analysis of Alternatives and industry concept studies. These activities began 3Q/01 and were funded under Program Element 0702207N Project Unit W2737. Approval to enter Component Advance Development (CAD) was attained from the Overarching Integrated Product Team on 18 Jan 2002 and the Milestone Decision Authority Under Secretary of Defense for Acquisition, Technology, & Logistics approved the program Acquisition Strategy on 8 Feb 2002. The CAD was a competitive award to multiple contractors to define alternative MMA concept system architectures and evaluate associated risks and proposed mitigations. Selection of MMA concept and approval to enter SDD phase occurred at MS B decision review on 28 May 2004. The contract was awarded to Boeing on 14 June 2004. The SDD phase is being used to design, develop and test the P-8A system. The P-8A program was initiated in response to the Joint Requirements Oversight Council validated Mission Needs Statement, "Broad Area Maritime and Littoral Armed Intelligence, Surveillance and Reconnaissance" and the requirements for the program are defined in the Capability Production Document. MS C was successfully completed on 11 August 2010 approving entry into the Production and Deployment Phase. P-8A Initial Operational Capability objective is FY 2013.

E. Performance Metrics

Milestone C completed 4th quarter 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Award Fee for Primary HW	C/CPAF	Boeing:Seattle, WA	156.743	39.718	Jul 2012	11.638	Jun 2013	0.000		-		0.000	0.000	208.099	208.099
Primary HW Dev - Boeing	C/CPAF	Boeing:Seattle, WA	5,929.147	439.753	Oct 2011	292.416	Oct 2012	157.321	Oct 2013	-		157.321	187.388	7,006.025	7,006.025
Primary HW Dev - SPAWAR	WR	SPAWAR:San Diego, CA	38.101	4.018	Nov 2011	0.000		0.000		-		0.000	0.000	42.119	
Sys Eng (gov)	WR	NAWC AD:Pax River, MD	61.418	2.457	Nov 2011	4.889	Nov 2012	4.694	Nov 2013	-		4.694	14.680	88.138	
Prior year Prod Dev cost no longer funded in the FYDP	Various	Various:Various	71.470	0.000		0.000		0.000		-		0.000	0.000	71.470	
		Subtotal	6,256.879	485.946		308.943		162.015		0.000		162.015	202.068	7,415.851	

Remarks

The total award fee issued to date was 2.4% of the total budget. No award fee is planned for FY 2014 based on current contract.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Int. Log Gov	WR	NAWC AD:Pax River, MD	40.195	1.743	Nov 2011	3.699	Nov 2012	1.335	Nov 2013	-		1.335	1.755	48.727	
Int. Log Gov	WR	NAWC TSD:Orlando, FL	14.180	0.840	Nov 2011	0.000		0.000		-		0.000	0.000	15.020	
Tech Dev Gov	WR	NAWC AD:Pax River, MD	68.730	1.944	Nov 2011	0.753	Nov 2012	1.000	Nov 2013	-		1.000	0.974	73.401	
Prior year Support cost no longer funded in the FYDP	Various	Various:Various	15.822	0.260	Nov 2011	0.000		0.000		-		0.000	0.000	16.082	
		Subtotal	138.927	4.787		4.452		2.335		0.000		2.335	2.729	153.230	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev T&E - Gov	WR	NAWC AD:Pax River, MD	55.496	16.064	Nov 2011	8.414	Nov 2012	7.250	Nov 2013	-		7.250	11.960	99.184	
GFE & GFI	WR	NAWC AD:Pax River, MD	44.942	19.018	Nov 2011	4.933	Nov 2012	4.933	Nov 2013	-		4.933	6.000	79.826	
LFT&E - Gov	WR	NAWC WD:China Lake	21.592	4.330	Nov 2011	2.162	Nov 2012	0.111	Nov 2013	-		0.111	0.000	28.195	
Oper Test & Eval	WR	NAWC AD:Pax River, MD	0.749	9.804	Nov 2011	6.680	Nov 2012	3.000	Nov 2013	-		3.000	18.400	38.633	
Prior year T&E cost no longer funded in the FYDP	Various	Various:Various	5.187	0.000		0.000		0.000		-		0.000	0.000	5.187	
		Subtotal	127.966	49.216		22.189		15.294		0.000		15.294	36.360	251.025	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Mgmt Suppt Serv (NON-FFRDC)	C/CPFF	RBC INC:Alexandria, VA	20.538	3.410	Nov 2011	0.661	Nov 2012	0.493	Nov 2013	-		0.493	0.877	25.979	25.979
Engineering Services	C/CPFF	ASEC:Lexington Park MD	3.814	1.405	Nov 2011	0.425	Nov 2012	0.404	Nov 2013	-		0.404	0.945	6.993	6.993
Program Mgmt Support	WR	NAWC AD:Pax River, MD	32.997	5.240	Nov 2011	4.750	Nov 2012	4.551	Nov 2013	-		4.551	4.858	52.396	
Travel	Various	NAWC AD:Pax River, MD	3.258	0.264	Oct 2011	0.201	Oct 2012	0.125	Oct 2013	-		0.125	0.373	4.221	
Prior year Mgmt cost no longer funded in the FYDP	Various	Various:Various	20.060	0.000		0.000		0.000		-		0.000	0.000	20.060	
		Subtotal	80.667	10.319		6.037		5.573		0.000		5.573	7.053	109.649	

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6,604.439	550.268		341.621		185.217		0.000		185.217	248.210	7,929.755	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*	

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*

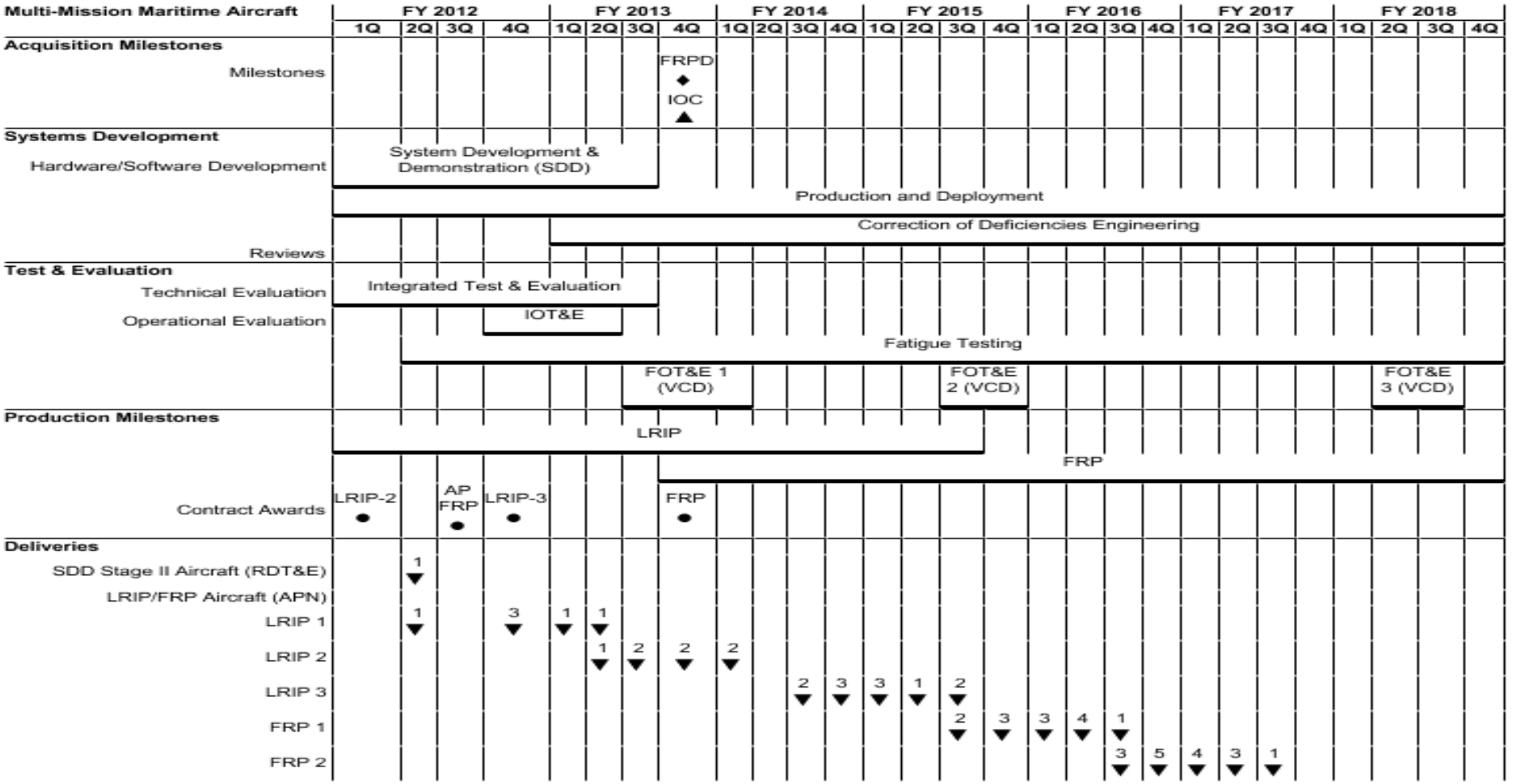


Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*



2014PB - 0605500N - 2696

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	**PROJECT** 2696: *Multi-Mission Maritime Aircraft*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Multi-Mission Maritime Aircraft				
Acquisition Milestones: Milestones: Full Rate Production (FRP) Decision	4	2013	4	2013
Acquisition Milestones: Milestones: Initial Operating Capability (IOC)	4	2013	4	2013
Systems Development: Hardware/Software Development: System Development & Demonstration (SDD)	1	2012	3	2013
Systems Development: Hardware/Software Development: Production and Deployment	1	2012	4	2018
Systems Development: Hardware/Software Development: Correction of Deficiencies Engineering	1	2013	4	2018
Test & Evaluation: Technical Evaluation: Integrated Test & Evaluation (Flight Test)	1	2012	3	2013
Test & Evaluation: Operational Evaluation: Initial Operational Test and Evaluation (IOT&E)	4	2012	2	2013
Test & Evaluation: Operational Evaluation: Fatigue Testing	2	2012	4	2018
Test & Evaluation: Operational Evaluation: Follow-on Test & Evaluation 1 (Defferals & High Priority Correction of Deficiencies)	3	2013	1	2014
Test & Evaluation: Operational Evaluation: Follow-on Test & Evaluation 2 (Verification of Correction of Deficiencies)	3	2015	4	2015
Test & Evaluation: Operational Evaluation: Follow-on Test & Evaluation 3 (Verification of Correction of Deficiencies)	2	2018	3	2018
Production Milestones: Low Rate Initial Production (LRIP)	1	2012	3	2015
Production Milestones: Full Rate Production (FRP)	4	2013	4	2018
Production Milestones: Contract Awards: LRIP Lot #2 (APN)	1	2012	1	2012
Production Milestones: Contract Awards: AP FRP	3	2012	3	2012
Production Milestones: Contract Awards: LRIP Lot #3 (APN)	4	2012	4	2012
Production Milestones: Contract Awards: FRP Contract Award	4	2013	4	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Deliveries: SDD Stage II Aircraft (RDT&E): SDD Stage II Aircraft (RDT&E) Q2 2012	2	2012	2	2012
Deliveries: LRIP 1: LRIP Aircraft (APN) Q2 2012	2	2012	2	2012
Deliveries: LRIP 1: LRIP Aircraft (APN) Q4 2012	4	2012	4	2012
Deliveries: LRIP 1: LRIP Aircraft (APN) Q1 2013	1	2013	1	2013
Deliveries: LRIP 1: LRIP Aircraft (APN) Q2 2013	2	2013	2	2013
Deliveries: LRIP 2: LRIP Aircraft (APN) Q2 2013	2	2013	2	2013
Deliveries: LRIP 2: LRIP Aircraft (APN) Q3 2013	3	2013	3	2013
Deliveries: LRIP 2: LRIP Aircraft (APN) Q4 2013	4	2013	4	2013
Deliveries: LRIP 2: LRIP Aircraft (APN) Q1 2014	1	2014	1	2014
Deliveries: LRIP 3: LRIP Aircraft (APN) Q3 2014	3	2014	3	2014
Deliveries: LRIP 3: LRIP Aircraft (APN) Q4 2014	4	2014	4	2014
Deliveries: LRIP 3: LRIP Aircraft (APN) Q1 2015	1	2015	1	2015
Deliveries: LRIP 3: LRIP Aircraft (APN) Q2 2015	2	2015	2	2015
Deliveries: LRIP 3: LRIP Aircraft (APN) Q3 2015	3	2015	3	2015
Deliveries: FRP 1: FRP Aircraft (APN) Q3 2015	3	2015	3	2015
Deliveries: FRP 1: FRP Aircraft (APN) Q4 2015	4	2015	4	2015
Deliveries: FRP 1: FRP Aircraft (APN) Q1 2016	1	2016	1	2016
Deliveries: FRP 1: FRP Aircraft (APN) Q2 2016	2	2016	2	2016
Deliveries: FRP 1: FRP Aircraft (APN) Q3 2016	3	2016	3	2016
Deliveries: FRP 2: FRP Aircraft (APN) Q3 2016	3	2016	3	2016
Deliveries: FRP 2: FRP Aircraft (APN) Q4 2016	4	2016	4	2016
Deliveries: FRP 2: FRP Aircraft (APN) Q1 2017	1	2017	1	2017
Deliveries: FRP 2: FRP Aircraft (APN) Q2 2017	2	2017	2	2017
Deliveries: FRP 2: FRP Aircraft (APN) Q3 2017	3	2017	3	2017
Deliveries: FRP 3: FRP Aircraft (APN) Q3 2017	3	2017	3	2017

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 2696: *Multi-Mission Maritime Aircraft*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Deliveries: FRP 3: FRP Aircraft (APN) Q4 2017	4	2017	4	2017
Deliveries: FRP 3: FRP Aircraft (APN) Q1 2018	1	2018	1	2018
Deliveries: FRP 3: FRP Aircraft (APN) Q2 2018	2	2018	2	2018
Deliveries: FRP 3: FRP Aircraft (APN) Q3 2018	3	2018	3	2018
Deliveries: FRP 4: FRP Aircraft (APN) Q3 2018	3	2018	3	2018
Deliveries: FRP 4: FRP Aircraft (APN) Q4 2018	4	2018	4	2018

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3181: *P-8A Spiral One Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3181: *P-8A Spiral One Development*	30.762	31.170	58.149	54.144	-	54.144	64.817	21.339	0.000	0.000	0.000	260.381
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The P-8A Multi-mission Maritime Aircraft (MMA) program is based on an evolutionary acquisition strategy consisting of sequential incremental enhancements to system capabilities that will retain cost-wise effectiveness for winning major combat operations beyond 2020. In order to pace the threat, Increment 2, the Next Phase of Capabilities (NPC-1), will incorporate the following capabilities into the P-8A: Multi-Static Active Coherent (MAC), Automatic Identification System, Rapid Capabilities Insertion (RCI), updates to the Tactical Operations Center (TOC), as well as additional Anti-Submarine Warfare (ASW), Anti-Surface Warfare (ASuW) and Intelligence Surveillance and Reconnaissance (ISR) capabilities. Increment 2 will be executed as an Engineering Change Proposal(ECP) to the baseline program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Perform technology demostrations and analyses of proposed new capabilities	24.320	39.792	38.712
Articles:	0	0	0
FY 2012 Accomplishments: Continued development of integration design of new P-8A capabilities. Conducted ECP1 design review. Conducted laboratory and preliminary development testing.			
FY 2013 Plans: Continue development of integration design of new P-8A capabilities. Conduct ECP2 design review. Conduct laboratory and preliminary development testing. Award primary Integration/EMD contract for comprehensive design, installation, test and initial fielding of all Increment 2 capabilities.			
FY 2014 Plans: Continue development of integration design of new P-8A capabilities. Achieve MAC Early Operational Capability. Conduct laboratory and preliminary development testing. Incrementally fund primary Integration/EMD contract for comprehensive design, installation, test and initial fielding of all Increment 2 capabilities such as Multi-Static Active Coherent (MAC), Automatic Identification System, and Rapid Capabilities Insertion (RCI). Maintain integration alignment with external development programs.			
Title: Conduct technical, cost, risk and logistics analysis of proposed technologies	6.850	18.357	15.432
Articles:	0	0	0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3181: *P-8A Spiral One Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Conducted technical, cost, risk and logistics analysis of proposed technologies. Provided technical and management support for the development of acquisition documentation. Provided engineering and management of technical development effort. ***FY 2013 Plans:*** Conduct technical, cost, risk and logistics analysis of proposed technologies. Provide technical and management support for the development of acquisition documentation. Provide engineering and management of technical development effort. Conduct flight testing of Increment 2 capabilities. Provide technical and management support for the development of training courseware. ***FY 2014 Plans:*** Conduct technical, cost, risk and logistics analysis of proposed technologies. Provide technical and management support for the development of acquisition documentation. Provide engineering and management of technical development effort. Conduct flight testing of Increment 2 capabilities. Provide technical and management support for the development of training courseware.			
Accomplishments/Planned Programs Subtotals	31.170	58.149	54.144

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN5/0586: *P-8 Series*	0.000	5.302	9.485		9.485	23.168	23.537	24.319	24.718	2,066.382	2,176.911

Remarks

D. Acquisition Strategy

The P-8A MMA program is based on an evolutionary acquisition strategy consisting of sequential incremental enhancements to system capabilities that will retain cost-wise effectiveness for winning major combat operations beyond 2020. As part of the P-8A evolutionary acquisition strategy, Increment 2 will incorporate the capabilities defined in the Capabilitiy Development Document approved by JROC on 25 June 2010. Next Phase of Capabilities (NPC-1) will incorporate the following capabilities into the P-8A: Multi-Static Active Coherent, Rapid Capabilities Insertion, updates to the Tactical Operations Center, as well as additional Anti-Submarine Warfare, Anti-Surface Warfare and Intelligence Surveillance and Reconnaissance capabilities.

E. Performance Metrics

Approval of Increment 2 Engineering Change Proposals (ECPs).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3181: *P-8A Spiral One Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HW Dev - Risk Reduction/Preliminary Design II	C/CPFF	Boeing:Seattle, WA	1.975	14.027	Nov 2011	0.000		0.000		-		0.000	0.000	16.002	16.002
Primary HW Dev - Integration/EMD	C/CPFF	Boeing:Seattle, WA	0.000	0.000		33.422	Nov 2012	33.443	Nov 2013	-		33.443	54.815	121.680	121.680
Sys Eng (gov)	WR	NAWC AD:Pax River, MD	9.071	10.293	Nov 2011	6.370	Nov 2012	5.269	Nov 2013	-		5.269	8.905	39.908	
Prior year Prod Dev cost no longer funded in the FYDP	Various	Various:Various	7.453	0.000		0.000		0.000		-		0.000	0.000	7.453	
		Subtotal	18.499	24.320		39.792		38.712		0.000		38.712	63.720	185.043	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Sup	WR	NAWC AD:Pax River, MD	1.307	0.885	Nov 2011	0.646	Nov 2012	0.509	Nov 2013	-		0.509	1.841	5.188	
Prior year Support cost no longer funded in the FYDP	Various	Various:Various	0.742	0.000		0.000		0.000		-		0.000	0.000	0.742	
		Subtotal	2.049	0.885		0.646		0.509		0.000		0.509	1.841	5.930	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval	WR	NAWC AD:Pax River, MD	1.850	0.877	Nov 2011	7.464	Nov 2012	7.561	Nov 2013	-		7.561	7.032	24.784	
GFE/GFI/GFP	WR	NAWC AD:Pax River, MD	0.050	2.933	Nov 2011	7.877	Nov 2012	3.598	Nov 2013	-		3.598	3.600	18.058	
Oper Test & Eval	WR	NAWC AD:Pax River, MD	0.000	0.000		0.000		2.100	Nov 2013	-		2.100	6.473	8.573	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3181: *P-8A Spiral One Development*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Assets	WR	NAWC AD:Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	
		Subtotal	1.900	3.810		15.341		13.259		0.000		13.259	17.105	51.415	

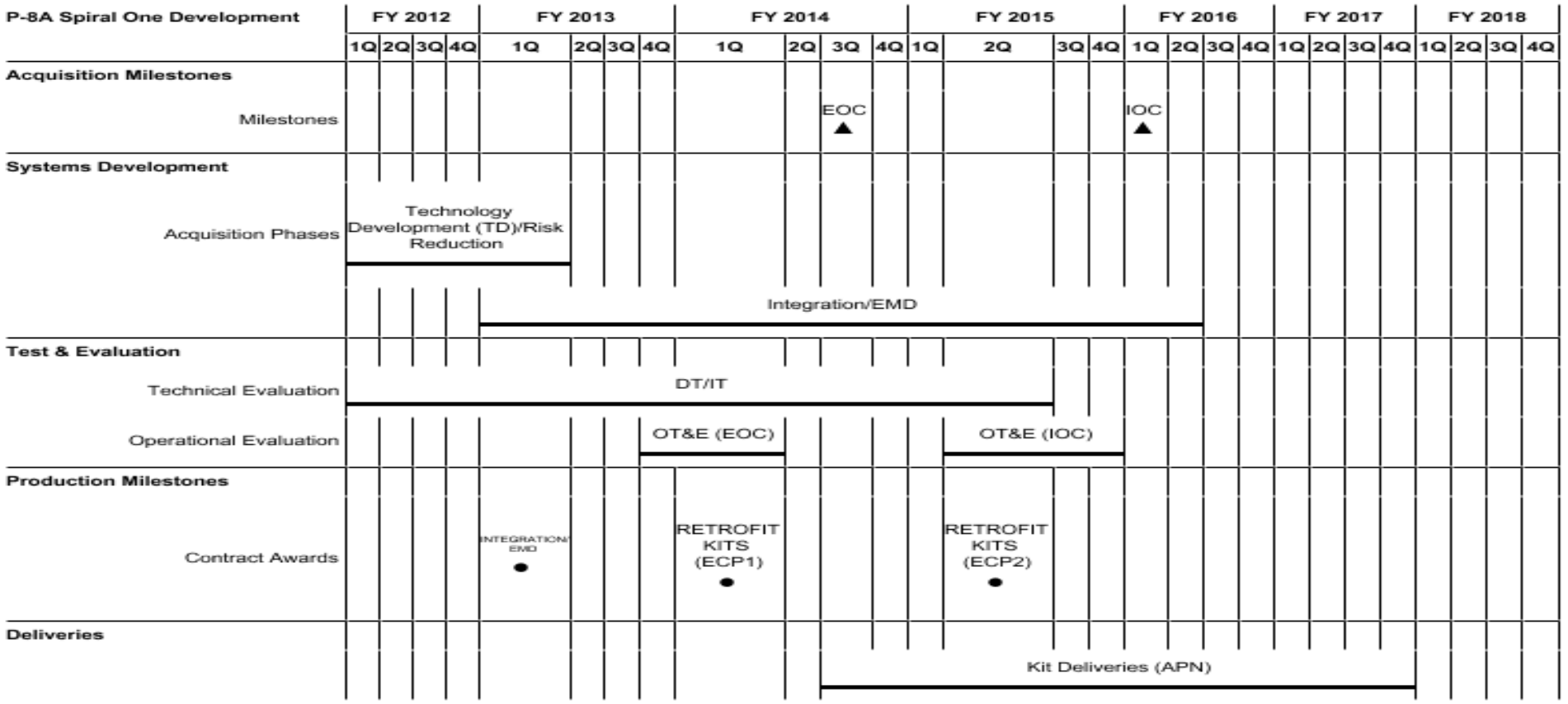
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services	C/CPFF	ASEC:Lexington Park, MD	1.260	0.000	Nov 2011	0.083	Nov 2012	0.200	Nov 2013	-		0.200	0.715	2.258	2.258
Mgmt Suppt Serv (NON-FFRDC)	C/CPFF	RBC INC:Alexandria, VA	4.112	1.480	Nov 2011	0.585	Nov 2012	0.752	Nov 2013	-		0.752	1.362	8.291	8.291
Program Mgmt Support	WR	NAWC AD:Pax River, MD	2.815	0.645	Nov 2011	1.613	Nov 2012	0.662	Nov 2013	-		0.662	1.313	7.048	
Travel	WR	NAWC AD:Pax River, MD	0.127	0.030	Oct 2011	0.089	Oct 2012	0.050	Oct 2013	-		0.050	0.100	0.396	
		Subtotal	8.314	2.155		2.370		1.664		0.000		1.664	3.490	17.993	

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	30.762	31.170		58.149		54.144		0.000		54.144	86.156	260.381	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3181: *P-8A Spiral One Development*



2014DON - 0605500N - 3181

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3181: *P-8A Spiral One Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
P-8A Spiral One Development				
Acquisition Milestones: Milestones: Early Operational Capability (EOC)	3	2014	3	2014
Acquisition Milestones: Milestones: Initial Operational Capability (IOC)	1	2016	1	2016
Systems Development: Acquisition Phases: Technology Development (TD)/Risk Reduction	1	2012	1	2013
Systems Development: Acquisition Phases: Integration/EMD	1	2013	2	2016
Test & Evaluation: Technical Evaluation: Developmental Testing (Integration Testing)	1	2012	2	2015
Test & Evaluation: Operational Evaluation: Operational Test & Evaluation (OT&E) (EOC)	4	2013	1	2014
Test & Evaluation: Operational Evaluation: Operational Test & Evaluation (OT&E) (IOC)	2	2015	4	2015
Production Milestones: Contract Awards: Contract Award Integration/ Engineering, Manufacturing, and Development (EMD)	1	2013	1	2013
Production Milestones: Contract Awards: Retrofit Kits (ECP1)	1	2014	1	2014
Production Milestones: Contract Awards: Retrofit Kits (ECP2)	2	2015	2	2015
Deliveries: Kit Deliveries (APN)	3	2014	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3218: *P-8A Spiral 2 Development*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3218: *P-8A Spiral 2 Development*	1.935	4.094	21.332	77.997	-	77.997	128.401	159.042	188.683	184.384	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The P-8A Multi-mission Maritime Aircraft (MMA) program is based on an evolutionary acquisition strategy consisting of sequential increments that will retain cost-wise effectiveness for winning major combat operations beyond 2020. In order to pace the threat, Increment 3 will incorporate improvements in aircraft systems, such as Architecture Upgrades, Net-Ready Key Performance Parameters (KPP) implementation, integration of a network enabled Anti-Surface Warfare (ASuW) weapon, Survivability Upgrades, Precision Targeting improvements, and Rapid Capabilities Insertion (RCI), as well as additional Anti-Submarine Warfare (ASW), ASuW and Intelligence Surveillance and Reconnaissance (ISR) capabilities. These capabilities and other emergent capability requirements will be investigated during the Technology Development phase of Increment 3 for the P-8A and Tactical Operations Center (TOC)(ground support facility).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Perform technology demostrations and analyses of proposed new capabilities	2.919	17.657	72.672
Articles:	0	0	0
FY 2012 Accomplishments: Conducted multiple engineering studies of the proposed new P-8A capabilities to ascertain the most affordable, military useful, most mature technological solution.			
FY 2013 Plans: Initiate design for integrating new capabilities into P-8A TOC. Continue engineering studies and prepare Increment 3 technology development system specifications. Continue government led competitive prototyping efforts.			
FY 2014 Plans: Continue government led competitive prototyping efforts for Increment 3 Architecture. Complete engineering studies. Award Technology Development contracts for Increment 3 Architecture and other Increment 3 capabilities such as ASW Enhancements. Begin Risk Reduction for integration of specific Increment 3 capabilities such as Net Enabled Weapon, ASW Enhancements, and architecture to include development of interfaces and identification of Size Weight Power and Cooling (SWAP-C). Continue P-8A TOC design and integration efforts.			
Title: Conduct technical, cost, risk and logistics analysis of proposed technologies	1.175	3.675	5.325

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3218: *P-8A Spiral 2 Development*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:	0	0	0
FY 2012 Accomplishments: Conducted technical, cost, risk and logistics analysis of proposed technologies. Evaluated system requirements through cost/ performance trade-off analysis. Provided technical and management support for the development of acquisition documentation. Provided engineering and management of engineering studies.			
FY 2013 Plans: Conduct technical, cost, risk and logistics analysis of proposed technologies. Evaluate system requirements through cost/ performance trade-off analysis. Provide technical and management support for the development of acquisition documentation. Provide engineering and management of technical development effort.			
FY 2014 Plans: Conduct technical, cost, risk and logistics analysis of proposed technologies. Evaluate system requirements through cost/ performance trade-off analysis. Provide technical and management support for the development of acquisition documentation. Provide engineering and management of technical development effort. Continue government prototyping.			
Accomplishments/Planned Programs Subtotals	4.094	21.332	77.997

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• APN5/0586: *P-8 Series*	0.000	5.302	9.485		9.485	23.168	23.537	24.319	24.718	2,066.382	2,176.911

Remarks

D. Acquisition Strategy

The P-8A MMA program is based on an evolutionary acquisition strategy consisting of sequential increments that will retain cost-wise effectiveness for winning major combat operations beyond 2020. As part of the P-8A evolutionary acquisition strategy, Increment 3 will incorporate the capabilities defined in the Capabilitiy Development Document approved by JROC on 25 June 2010. In order to pace the threat, Increment 3 will incorporate improvements in aircraft systems such as Architecture Upgrades, Net-Ready Key Performance Parameters (KPP) implementation, integration of a network enabled Anti-Surface Warfare (ASuW) weapon, Survivability Upgrades, Precision Targeting improvements, and Rapid Capabilities Insertion Capabilities, as well as additional Anti-Submarine Warfare, ASuW and Intelligence Surveillance and Reconnaissance capabilities. The scope of this effort includes the integration design and test of capability enhancements to the P-8A. Fleet introduction is planned to be accomplished, based on the scope of change, in FY20. These capabilities and other emergent capability requirements will be investigated during the Technology Development phase of Increment 3 for the P-8A and Tactical Operation Center (ground support facility).

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3218: *P-8A Spiral 2 Development*

E. Performance Metrics

Milestone A to be completed 2nd quarter 2013; Milestone B to be completed 3rd quarter 2016.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3218: *P-8A Spiral 2 Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HW Dev - Engineering Studies	TBD	TBD:Not Specified	0.000	1.000	Jul 2012	5.000	Nov 2012	0.000		-		0.000	0.000	6.000	6.000
Primary Hdw Dev - Technology Development	C/CPIF	TBD:TBD	0.000	0.000		0.000		63.996	Jan 2014	-		63.996	128.367	192.363	197.790
Primary HW Dev - EMD	C/CPIF	TBD:TBD	0.000	0.000		0.000		0.000		-		0.000	427.970	427.970	427.970
Sys Eng (gov)	WR	NAWC AD:Pax River, MD	0.308	1.919	Nov 2011	12.657	Nov 2012	8.676	Nov 2013	-		8.676	51.058	74.618	
		Subtotal	0.308	2.919		17.657		72.672		0.000		72.672	607.395	700.951	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Sup	WR	NAWC AD:Pax River, MD	0.451	0.053	Nov 2011	0.500	Nov 2012	0.166	Nov 2013	-		0.166	2.662	3.832	
Studies & Analysis	C/CPFF	JHU:Pax River, MD	0.644	0.000	Dec 2011	0.891	Dec 2012	0.350	Dec 2013	-		0.350	0.350	2.235	2.235
		Subtotal	1.095	0.053		1.391		0.516		0.000		0.516	3.012	6.067	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval	WR	NAWC AD:Pax River, MD	0.000	0.000	Nov 2011	0.400	Nov 2012	1.400	Nov 2013	-		1.400	Continuing	Continuing	Continuing
GFE/GFI/GFP	WR	NAWC AD:Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	20.341	20.341	
Oper Test & Eval	WR	NAWC AD:Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	64.000	64.000	
Test Assets	WR	NAWC AD:Pax River, MD	0.000	0.000		0.000		0.000		-		0.000	32.000	32.000	
		Subtotal	0.000	0.000		0.400		1.400		0.000		1.400			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3218: *P-8A Spiral 2 Development*

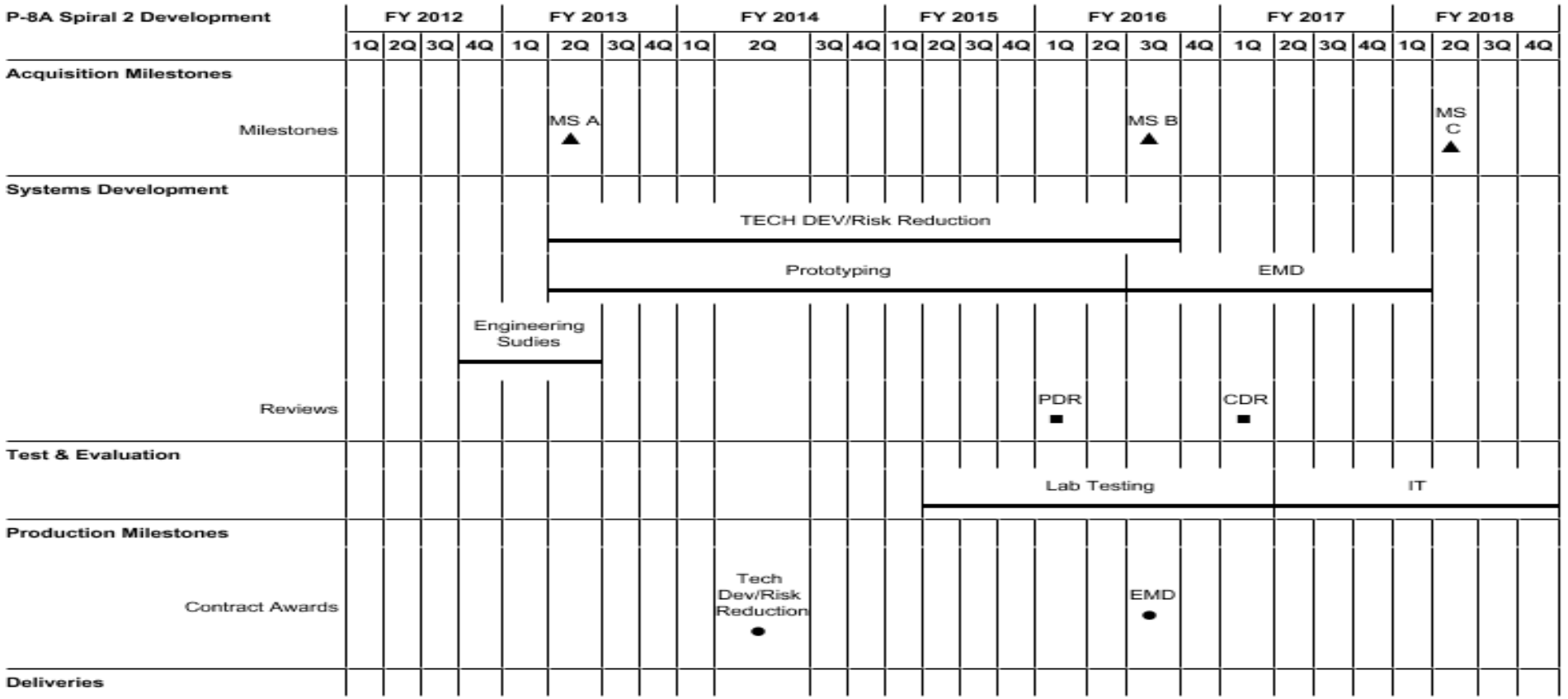
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services	C/CPFF	ASEC:Lexington Park, MD	0.000	0.204	Nov 2011	0.515	Nov 2012	0.300	Nov 2013	-		0.300	4.034	5.053	5.053
Mgmt Suppt Serv (NON-FFRDC)	C/CPFF	RBC:Alexandria, VA	0.420	0.682	Nov 2011	0.772	Nov 2012	2.366	Nov 2013	-		2.366	14.273	18.513	18.513
Program Mgmt Support	WR	NAWC AD:Pax River, MD	0.112	0.236	Nov 2011	0.500	Nov 2012	0.543	Nov 2013	-		0.543	7.705	9.096	
Travel	WR	NAWC AD:Pax River, MD	0.000	0.000	Oct 2011	0.097	Oct 2012	0.200	Oct 2013	-		0.200	2.800	3.097	
		Subtotal	0.532	1.122		1.884		3.409		0.000		3.409	28.812	35.759	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.935	4.094		21.332		77.997		0.000		77.997			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3218: *P-8A Spiral 2 Development*



2014PB - 0605500N - 3218

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 3218: *P-8A Spiral 2 Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
P-8A Spiral 2 Development				
Acquisition Milestones: Milestones: Increment 3 MS A	2	2013	2	2013
Acquisition Milestones: Milestones: Increment 3 MS B	3	2016	3	2016
Acquisition Milestones: Milestones: Increment 3 MS C	2	2018	2	2018
Systems Development: Technology Development/Risk Reduction	2	2013	3	2016
Systems Development: Prototyping	2	2013	2	2016
Systems Development: Engineering Manufacturing & Development (EMD)	3	2016	1	2018
Systems Development: Engineering Sudies	4	2012	2	2013
Systems Development: Reviews: Preliminary Design Review (PDR)	1	2016	1	2016
Systems Development: Reviews: Critical Design Review (CDR)	1	2017	1	2017
Test & Evaluation: Integrated Test (IT)	2	2017	4	2018
Test & Evaluation: Lab Testing	2	2015	1	2017
Production Milestones: Contract Awards: Contract Award - Technology Development/ Risk Reduction	2	2014	2	2014
Production Milestones: Contract Awards: Engineering Manufacturing & Development (EMD)	3	2016	3	2016

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	10.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.000
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Congressional Add.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013
Congressional Add: Small Business Technology Insertion	10.000	-
FY 2012 Accomplishments: N/A		
Congressional Adds Subtotals	10.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Not required for Congressional Adds.

E. Performance Metrics

Not required for Congresisonal Adds.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0605500N: *Multi-mssn Maritime Aircraft (MMA) (P-8A)*	PROJECT 9999: *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary HW Dev - NAWCAD	WR	NAWC AD:Patuxent River, MD	0.000	0.048	Jun 2012	0.000		0.000		-		0.000	0.000	0.048	
Primary HW Dev - Progeny	C/CPFF	PROGENY:Manassas, VA	0.000	8.417	Jun 2013	0.000		0.000		-		0.000	0.000	8.417	8.417
Primary HW Dev - TBD	TBD	TBD:TBD	0.000	0.583	Jun 2013	0.000		0.000		-		0.000	0.000	0.583	
		Subtotal	0.000	9.048		0.000		0.000		0.000		0.000	0.000	9.048	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services	WR	NAWC AD:Paxtuxent River, MD	0.000	0.061	Mar 2013	0.000		0.000		-		0.000	0.000	0.061	
Mgmt Suppt Serv (NONFFRDC)	C/CPFF	RBC INC:Alexandria,	0.000	0.891	Mar 2013	0.000		0.000		-		0.000	0.000	0.891	
		Subtotal	0.000	0.952		0.000		0.000		0.000		0.000	0.000	0.952	

	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	10.000		0.000		0.000		0.000		0.000	0.000	10.000	

Remarks

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	886.555	249.780	124.655	187.910	-	187.910	185.793	117.850	66.506	38.255	Continuing	Continuing
2464: *DD(X) Sys Design, Dev & Integration*	672.277	196.357	89.778	187.910	-	187.910	185.793	117.850	66.506	38.255	Continuing	Continuing
4009: *Advanced Gun System (AGS) on DD(X)*	214.278	53.423	34.877	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	302.578

MDAP/MAIS Code(s): 197

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This Program Element (PE) provides funds for development of the DDG 1000 Class of U.S. Navy surface combatants. The mission of the DDG 1000 class is to provide credible independent forward presence/deterrence and operate as an integral part of Naval, Joint or Combined Maritime Forces. DDG 1000 will provide advanced land attack capability in support of the ground campaign and contribute to Naval, Joint or Combined battlespace dominance in littoral operations. DDG 1000 will establish and maintain surface and sub-surface superiority, provide local air defense, and incorporate signature reduction to operate in all threat environments. DDG 1000 will have seamless Joint Interoperability to integrate all source information for battlespace awareness and weapons direction.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	257.580	124.655	168.047	-	168.047
Current President's Budget	249.780	124.655	187.910	-	187.910
Total Adjustments	-7.800	0.000	19.863	-	19.863
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.346	0.000			
• SBIR/STTR Transfer	-7.454	0.000			
• Program Adjustments	0.000	0.000	21.039	-	21.039
• Rate/Misc Adjustments	0.000	0.000	-1.176	-	-1.176

Change Summary Explanation

Increase in FY14 due to additional funds for missile and weapon system integration and testing.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 2464: *DD(X) Sys Design, Dev & Integration*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2464: *DD(X) Sys Design, Dev & Integration*	672.277	196.357	89.778	187.910	-	187.910	185.793	117.850	66.506	38.255	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This project encompasses DDG 1000 development efforts required to deliver the Flight I DDG 1000 Class Ships. Major efforts include software requirements analysis, architectural and design code and unit testing, integration, qualification testing, and Independent Verification and Validation (IV&V) for Software Release 6 and Spiral Release; execution of Integrated Power Systems (IPS) and ship control system testing and integration; Live Fire Test and Evaluation (LFT&E), Developmental Testing, and Integrated Testing in support of the TEMP and development of Tomahawk Weapon Control System software. Funding for previous years is included in PE 0604300N.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Product / Software Development	155.560	49.278	89.381
Articles:	0	0	0

Description: Software Development

FY 2012 Accomplishments:
Continued development of Release 6 Hull, Mechanical & Electrical (HM&E) build to support Ship Activation and Test schedule. Software delivered to support initial light-off of engineering plant. Began development of Release 6 Self Defense Test Ship / Post Delivery Availability (SDTS/PDA) software build.

FY 2013 Plans:
Completion of Release 6 HM&E build. Continuation of development of Release 6 SDTS/PDA software build. Planned delivery of engineering builds to Self Defense Test Ship (SDTS) for Total Ship Computing Environment Infrastructure (TSCEI) integration. Begin system engineering and development of Post Shakedown Availability (PSA) software release.

FY 2014 Plans:
Complete development and test of Release 6 software build requirements for SDTS/PDA. Completion of Multi-Function Radar (MFR) with Volume Search. Capability required to launch and control missiles for ITB-1. Continue development of software

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 2464: *DD(X) Sys Design, Dev & Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
build to support PSA required capabilities for full operation of Integrated Undersea Warfare (IUSW), Surface Electronic Warfare Improvement Program (SEWIP), Tomahawk, and Vertical Launch Anti-Submarine Rocket (VLA).			
Title: Test and Evaluation	40.127	40.000	98.129
Articles:	0	0	0
Description: Test and Evaluation Master Plan Execution ***FY 2012 Accomplishments:*** Initiated planning for Developmental Test (DTB3-360) Software Release 6 (SR6) Software Testing. Continued Engineering Survivability Assessments for Live Fire Test and Evaluation. Initiated and completed AIREX, UNDEX Vulnerability and Recoverability Analysis for TEMP Live Fire Test and Evaluation. Completed Composite Blast Testing. Completed signature range upgrades to support DDG 1000 Test and Evaluation. Continued planning for Integrated Test (ITB1-120) Extended Sea Sparrow Missile (ESSM) engagements using the Self Defense Test Ship. Continued X-Band Multi-Function Radar (MFR) modification due to removal of S-Band Volume Search Radar (VSR) during Nunn-McCurdy certification. Completed Electronic Modular Enclosure (EME) shock qualification testing. ***FY 2013 Plans:*** Continue planning for Developmental Test (DTB3-360) Software Testing. Complete Engineering Survivability Assessments for Live Fire Test and Evaluation. Continue planning for Integrated Test (ITB1-120) ESSM engagements using the Self Defense Test Ship (SDTS). Prepare for land based testing of anti-air warfare (AAW) SDTS suite at SCSC Wallops Island. Continue development of modeling and simulation (MAS) probability of raid and annihilation (PRA) test bed. Initiate MAS measures of effectiveness (MOE) test bed. ***FY 2014 Plans:*** Procure test ordnance ESSM and SM2 to conduct Integrated Test (ITB1 - SDTS and ITB3 - Lead Ship) for Anti-Air Warfare Mission Testing. Procure LRLAP rounds, blast shapes, propellant charges and pallets to conduct Integrated Test (ITB3 - Lead Ship) Land Attack Mission Testing. Procure Tomahawk rounds to conduct Integrated Testing (ITB4 - Lead Ship) Land Attack Mission Testing. Conduct SDTS suite land based test at Wallops Island. Conduct DTB3-414 SPY 3 volume surveillance testing at SCSC Wallops Island. Prepare for installation of the AAW suite on the SDTS. Continue development of MAS PRA and MOE.			
Title: Management Support	0.670	0.500	0.400
Articles:	0	0	0
Description: Government and Contractor Engineering Support. ***FY 2012 Accomplishments:***			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 2464: *DD(X) Sys Design, Dev & Integration*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Continued to provide travel. ***FY 2013 Plans:*** Continue to provide travel. ***FY 2014 Plans:*** Continue to provide travel.			
Accomplishments/Planned Programs Subtotals	196.357	89.778	187.910

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN / 2119: *DDG 1000*	508.727	669.222	231.694		231.694	321.257	0.000	0.000	0.000	0.000	3,356.516
• OMN / 3B1K: *Specialized Skill Training*	4.449	3.858	3.721		3.721	3.777	3.780	3.865	3.935	0.000	27.385
• WPN / 2307: *Evolved Sea Sparrow Missile*	0.000	7.207	0.000		0.000	0.000	0.000	0.000	0.000	0.000	7.207
• RDTE / 0439: *Standard Missile Improvement*	16.918	22.744	12.706		12.706	0.000	0.000	0.000	0.000	0.000	52.368
• PANMC / 0198: *LRLAP 6*	0.000	7.102	3.906		3.906	18.832	32.015	31.039	56.028	0.000	148.922
• OPN/9020: *OPN Spares*	0.000	0.000	4.844		4.844	12.624	0.000	0.000	0.000	0.000	17.468
• SCN/5110: *Outfitting/Post Delivery*	4.276	10.630	48.446		48.446	74.922	77.085	71.874	25.612	96.098	408.943

Remarks

D. Acquisition Strategy

A revised acquisition strategy has been determined that supports the DDG-1000/DDG-51 restart shipyard allocation workload MOAs. Execution of the MOAs shifted primary construction of all three DDG-1000 class ships to Bath Iron Works (BIW). Award of the DDG 1001/1002 to BIW occurred in September 2011.

E. Performance Metrics

Successfully achieve Milestone C. Successfully achieve Initial Operational Capability. Successfully complete Operation Test Readiness Review. Successfully complete Developmental Test/Operational Test.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 2464: *DD(X) Sys Design, Dev & Integration*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Ship Integration Development Phase IV	SS/CPAF	Raytheon:Tewksbury MA	500.571	149.560	Dec 2011	39.378	Dec 2012	89.381	Jan 2014	-		89.381	Continuing	Continuing	Continuing
Ship Integration Development	SS/CPFF	Converteam:Pittsburgh, PA	6.250	6.000	Jan 2012	9.900	Jan 2013	0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	506.821	155.560		49.278		89.381		0.000		89.381			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Live Fire Test and Evaluation	Various	Various:Various	1.100	0.000		0.000		0.000		-		0.000	0.000	1.100	
Live Fire Test and Evaluation	WR	NSWC:Bethesda, MD	0.700	0.000		0.000		0.000		-		0.000	0.000	0.700	
Live Fire Test and Evaluation	C/CPIF	ROI:Mullica Hills, NJ	2.300	5.650	Jan 2012	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
SDTS (ITB1-120) / PRA TB	SS/CPFF	Raytheon:Portsmouth, RI	53.126	20.300	Oct 2011	21.845	Oct 2012	16.981	Oct 2013	-		16.981	Continuing	Continuing	Continuing
T&E Engineering	C/CPIF	CSC:Washington, DC	0.300	0.515	Feb 2012	1.022	Dec 2012	1.600	Dec 2013	-		1.600	0.000	3.437	
SDTS/PRA	SS/CPFF	JHU/APL:Laurel, MD	0.300	0.500	Jan 2012	2.678	Dec 2012	5.430	Dec 2013	-		5.430	Continuing	Continuing	Continuing
PRA Test Bed	C/CPIF	NSMA:Arlington, VA	1.700	0.000		1.077	Dec 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Eng/M&S/Cert Agents	WR	NSWC:Dahlgren, VA	2.840	1.736	Nov 2011	2.018	Dec 2012	2.100	Nov 2013	-		2.100	Continuing	Continuing	Continuing
Integrated Test	WR	NSWC:Bethesda, MD	7.210	1.900	Nov 2011	0.500	Dec 2012	1.700	Nov 2013	-		1.700	Continuing	Continuing	Continuing
SDTS/PRA	WR	NSWC:Port Hueneme, CA	2.014	1.820	Oct 2011	2.518	Dec 2012	4.310	Nov 2013	-		4.310	Continuing	Continuing	Continuing
SDTS/PRA/Test Bed	WR	NRL:Washington, DC	1.125	0.650	Nov 2011	0.200	Dec 2012	0.030	Oct 2013	-		0.030	Continuing	Continuing	Continuing
SDTS/PRA/Test Bed	WR	NAWC:China Lake, CA	3.070	1.200	Nov 2011	1.200	Dec 2012	1.200	Dec 2013	-		1.200	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 2464: *DD(X) Sys Design, Dev & Integration*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SDTS	WR	SCSC:Wallops, Is, VA	6.127	0.000		0.601	Dec 2012	1.640	Oct 2013	-		1.640	Continuing	Continuing	Continuing
OA/DT Assist	WR	COTF:Norfolk, VA.	2.634	1.136	Oct 2011	1.409	Dec 2012	4.700	Dec 2013	-		4.700	Continuing	Continuing	Continuing
LRLAP Test Article	C/CPIF	BAE:Minneapolis, MN	0.000	0.000		0.000		19.000	Jan 2014	-		19.000	0.000	19.000	
LFT&E Engineering	C/CPIF	ROI:Mullica Hills, NJ	27.071	0.000		1.246	Dec 2012	3.200	Oct 2013	-		3.200	0.000	31.517	
ESSM/SM2	C/CPIF	Raytheon:Tucson, AZ	0.000	4.715	Mar 2012	1.300	Dec 2012	3.600	Jan 2014	-		3.600	0.000	9.615	
MOE Test Bed	WR	NUWC:Newport, RI	0.000	0.005	Nov 2011	0.573	Dec 2012	0.000		-		0.000	0.000	0.578	
SDTS/PRA	WR	NSWC:Corona, CA	0.000	0.000		1.637	Dec 2012	1.360	Dec 2013	-		1.360	0.000	2.997	
TTWCS	C/CPIF	Lockheed Martin:Valley Forge, PA	0.000	0.000		0.000		6.000	Jan 2014	-		6.000	0.000	6.000	
SDTS	WR	NSWC:Pt. Mugu	0.000	0.000		0.050	Dec 2012	0.000		-		0.000	0.000	0.050	
Travel	Various	NAVSEA:Washington DC	0.000	0.000		0.048	Oct 2012	0.049	Oct 2013	-		0.049	0.000	0.097	
SDTS/Integrated Test	Various	IWS:Washington DC	0.000	0.000		0.078	Dec 2012	25.229	Dec 2013	-		25.229	0.000	25.307	
		Subtotal	111.617	40.127		40.000		98.129		0.000		98.129			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Services	WR	NSWC:Dahlgren VA	6.781	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Government Engineering Services	WR	NSWC:Philadelphia PA	8.488	0.000		0.000		0.000		-		0.000	0.000	8.488	
Government Engineering Services	WR	NSWC:Port Hueneme CA	3.091	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Government Engineering Services	WR	NAWC:Patuxent River MD	6.934	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 2464: *DD(X) Sys Design, Dev & Integration*

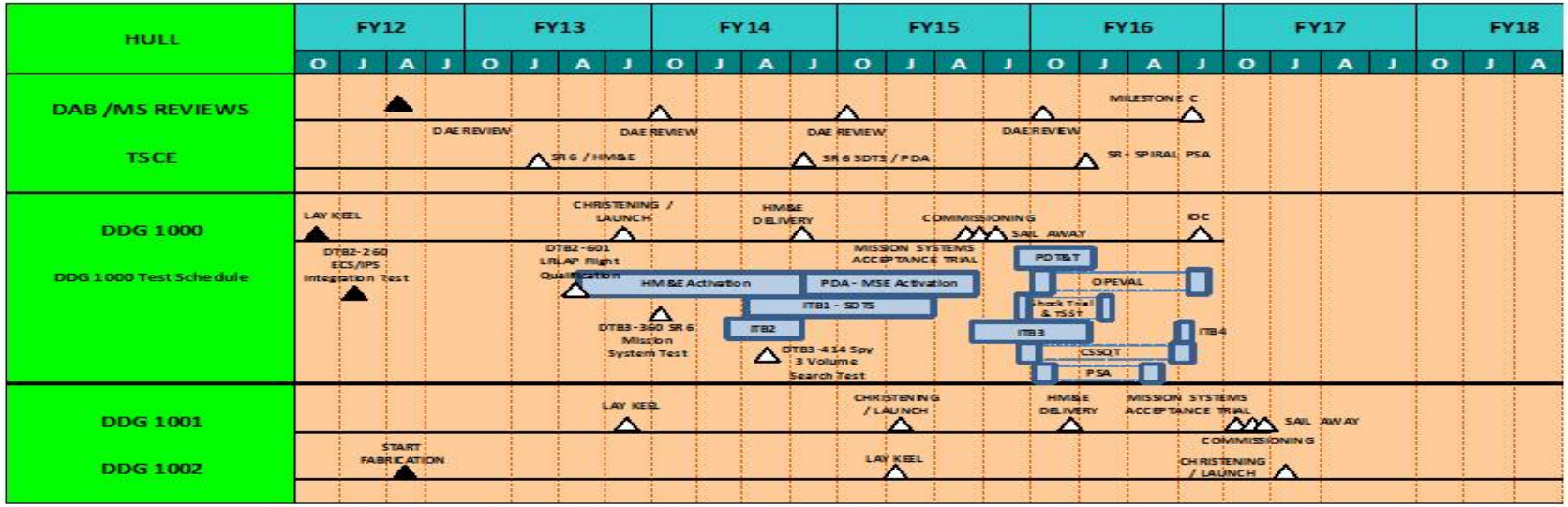
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Services	WR	NSWC:Bethesda MD	15.810	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Government Engineering Services	Various	Other Govt Activities:Various	0.322	0.000		0.000		0.000		-		0.000	0.000	0.322	
Travel	Various	NAVSEA:Washington DC	1.400	0.670	Dec 2011	0.500	Dec 2012	0.400	Dec 2013	-		0.400	Continuing	Continuing	Continuing
Contractor Engineering Support	SS/CPFF	General Dynamics:Fairfax, VA	5.614	0.000		0.000		0.000		-		0.000	0.000	5.614	
Contractor Engineering Support	SS/CPAF	Alion:Washington, DC	1.703	0.000		0.000		0.000		-		0.000	0.000	1.703	
Contractor Engineering Support	SS/CPFF	JHU/APL:Laurel, MD	2.696	0.000		0.000		0.000		-		0.000	0.000	2.696	
Contractor Engineering Support	SS/CPFF	EG&G:Fairfax, VA	0.200	0.000		0.000		0.000		-		0.000	0.000	0.200	
Contractor Engineering Support	SS/CPAF	Sayres:Washington,DC	0.800	0.000		0.000		0.000		-		0.000	0.000	0.800	
		Subtotal	53.839	0.670		0.500		0.400		0.000		0.400			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	672.277	196.357		89.778		187.910		0.000		187.910			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0204202N: *DDG-1000*	**PROJECT** 2464: *DD(X) Sys Design, Dev & Integration*



KEY	
DAB	DEFENSE ACQUISITION BOARD
DAE	DEFENSE ACQUISITION EXECUTIVE
SR	SOFTWARE RELEASE
▲	COMPLETED EVENT
HM&E	HULL, MECHANICAL & ELECTRICAL
SDTS	SELF-DEFENSE TEST SHIP
PDA	POST DELIVERY AVAILABILITY
PSA	POST SHAKEDOWN AVAILABILITY
IOC	INITIAL OPERATIONAL CAPABILITY
IPS	INTEGRATED POWER SYSTEM
ECS	ENGINEERING CONTROL SYSTEM
LRLAP	LONG RANGE LAND ATTACK PROJECTILE
PDT&T	POST DELIVERY TEST & TRIALS
TSST	TOTAL SHIP SURVIVABILITY TEST
OPEVAL	OPERATIONAL EVALUATION

1

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0204202N: *DDG-1000*	**PROJECT** 2464: *DD(X) Sys Design, Dev & Integration*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2464				
Software Release SR6/HM&E	2	2013	2	2013
Software Release SR6 Self Defense Test Ship/Post Delivery Availability	4	2014	4	2014
Software Release-Spiral Post Shakedown Availability	2	2016	2	2016

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 4009: *Advanced Gun System (AGS) on DD(X)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
4009: *Advanced Gun System (AGS) on DD(X)*	214.278	53.423	34.877	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	302.578
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

These funds provide for the development of the Advanced Gun System (AGS) and the development, qualification and initial production of the Long Range Land Attack Projectile (LRLAP) associated with the development of DDG 1000. The AGS will consist of a major caliber gun, an automated ammunition handling system, and a guided projectile/propelling charge. The AGS will, at a minimum, meet the Land Attack and Surface Dominance Missions assigned to the gun system. The system will provide a high rate of fire (10 rounds per minute) with a magazine capacity of 600 rounds (total for both guns). LRLAP will be stored throughout its life cycle in an 8 round pallet which is handled by the AGS magazine. By palletizing the munition, AGS is able to significantly reduce manning and improve munition reliability, safety and resupply. System Design and Development began in FY06 with final land based qualification testing planned in FY13. The Long Range Land Attack Projectile (LRLAP) is a rocket-assisted projectile that will deliver a high explosive unitary payload with Global Positioning System (GPS) accuracy. Funding for previous years is included in PE 0604300N.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: System Engineering, Development and Testing	43.423	34.877	0.000
Articles:	0	0	
Description: System Engineering, Development and Testing			
FY 2012 Accomplishments: LRLAP System Design, development, guided flight tests and qualification testing.			
FY 2013 Plans: LRLAP guided flight tests and qualification testing.			
Title: Procurement of Ordnance Test Assets	10.000	0.000	0.000
Articles:	0		
Description: Procurement of Ordnance Test Assets			
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 4009: *Advanced Gun System (AGS) on DD(X)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Procurement of LRLAP rounds for qualification testing.			
Accomplishments/Planned Programs Subtotals	53.423	34.877	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• SCN / 2119: *DDG 1000*	508.727	669.222	231.694		231.694	321.257	0.000	0.000	0.000	0.000	3,356.516
• OMN / 3B1K: *Specialized Skill Training*	4.449	3.858	3.721		3.721	3.777	3.780	3.865	3.935	0.000	27.385
• WPN / 2307: *Evolved Sea Sparrow Missile*	0.000	7.207	0.000		0.000	0.000	0.000	0.000	0.000	0.000	7.207
• RDTE / 0439: *Standard Missile Improvement*	16.918	22.744	12.706		12.706	0.000	0.000	0.000	0.000	0.000	52.368
• PANMC/0198: *LRLAP 6*	0.000	7.102	3.906		3.906	18.832	32.015	31.039	56.028	0.000	148.922
• OPN/9020: *OPN Spares*	0.000	0.000	4.844		4.844	12.624	0.000	0.000	0.000	0.000	17.468
• SCN/5110: *Outfitting/Post Delivery*	4.276	10.630	48.446		48.446	74.922	77.085	71.874	25.612	96.098	408.943

Remarks

D. Acquisition Strategy

A revised acquisition strategy has been determined that supports the DDG-1000/DDG-51 restart shipyard allocation workload MOAs. Execution of the MOAs shifted primary construction of all three DDG-1000 class ships to Bath Iron Works (BIW). DDG 1001/1002 awarded to BIW 4th quarter FY11. AGS is developed via a sole source contract to BAE. Lockheed is the key supplier to BAE for LRLAP development.

E. Performance Metrics

Successfully achieve LRIP Decision. Successfully achieve Integrated Operational Capability. Successfully complete LRLAP guided flights and Initial Operational Test and Evaluation (IOT&E) test events.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 4009: *Advanced Gun System (AGS) on DD(X)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/CPAF	BAE:Minneapolis MN	201.227	45.375	Dec 2011	22.270	Dec 2012	0.000		-		0.000	0.000	268.872	
		Subtotal	201.227	45.375		22.270		0.000		0.000		0.000	0.000	268.872	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	Various	Various:Not Specified	6.872	0.000		0.000		0.000		-		0.000	0.000	6.872	
Test and Evaluation	WR	White Sands Missile Range:New Mexico	1.686	3.910	Dec 2011	6.400	Nov 2012	0.000		-		0.000	0.000	11.996	
		Subtotal	8.558	3.910		6.400		0.000		0.000		0.000	0.000	18.868	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Services	Various	Various:Not Specified	0.852	0.350	Dec 2011	0.320	Dec 2012	0.000		-		0.000	0.000	1.522	
Government Engineering Services	WR	NSWC DD:Dahlgren VA	2.291	2.592	Dec 2011	3.054	Nov 2012	0.000		-		0.000	0.000	7.937	
Government Engineering Services	WR	NSWC PHD:Pt Hueneme CA	0.590	0.226	Nov 2011	0.281	Nov 2012	0.000		-		0.000	0.000	1.097	
Government Engineering Services	WR	NSWC IHD:Indian Head MD	0.760	0.745	Dec 2011	1.325	Nov 2012	0.000		-		0.000	0.000	2.830	
Government Engineering Services	WR	NAWC, China Lake:China Lake, CA	0.000	0.225	Dec 2011	1.227	Nov 2012	0.000		-		0.000	0.000	1.452	
		Subtotal	4.493	4.138		6.207		0.000		0.000		0.000	0.000	14.838	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 4009: *Advanced Gun System (AGS) on DD(X)*	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	214.278	53.423		34.877		0.000		0.000		0.000	0.000	302.578	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0204202N: *DDG-1000*	PROJECT 4009: *Advanced Gun System (AGS) on DD(X)*

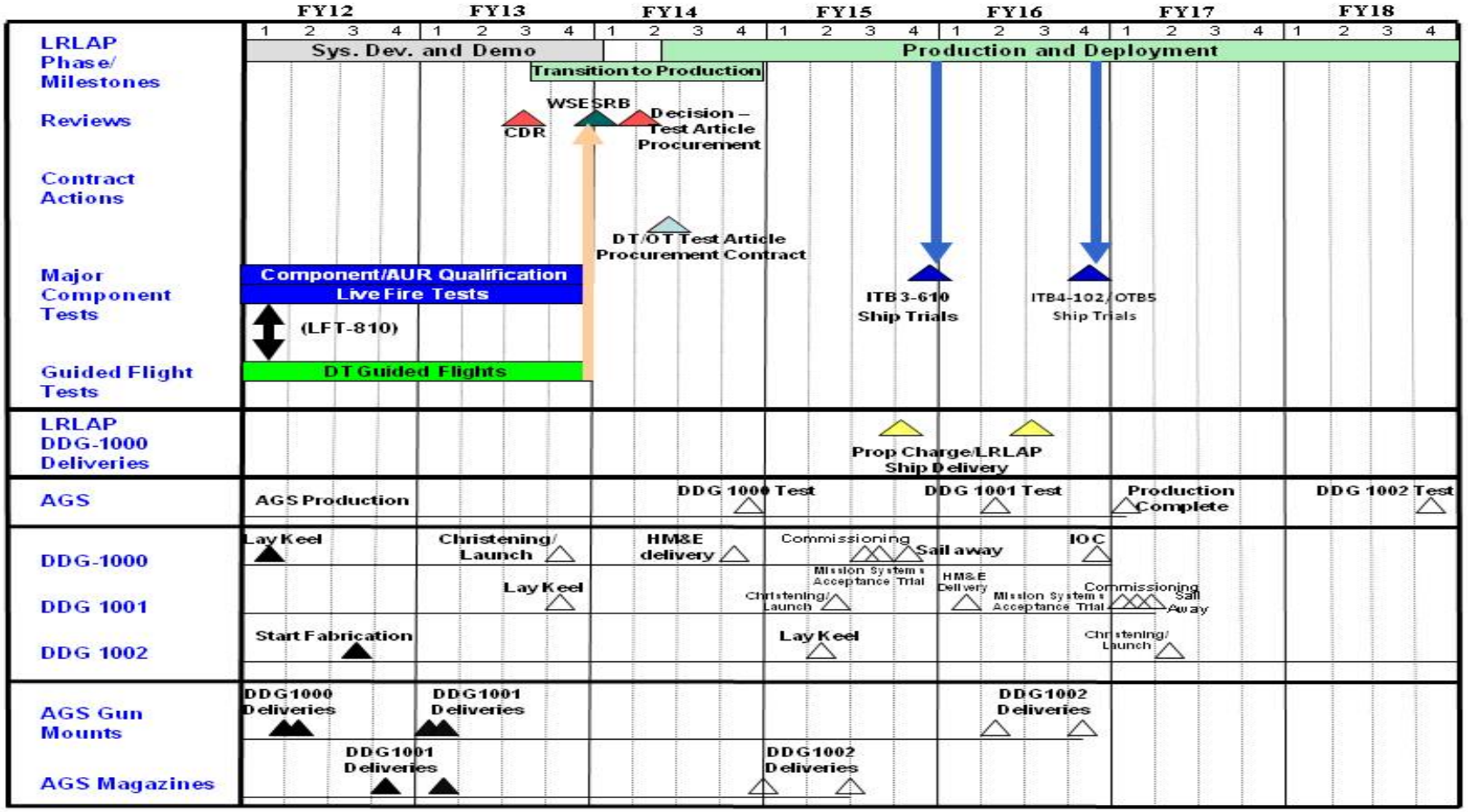


Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0204202N: *DDG-1000*	**PROJECT** 4009: *Advanced Gun System (AGS) on DD(X)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 4009				
Critical Design Review (CDR)	3	2013	3	2013
Wpn Sys Explosive Safety Revw Bd (WSESRB)	1	2014	1	2014
DT/OT Test Article Decision	2	2014	2	2014
DT/OT Test Article Contract Award	2	2014	2	2014
Component/AUR Qualification	1	2012	4	2013
Live Fire Tests	1	2012	4	2013
DT Guided Flights	1	2012	4	2013
Prop Charge/LRLAP Ship Delivery	4	2015	3	2016
AGS Production	1	2012	1	2017
AGS DDG 1000 Test	4	2014	4	2014
AGS DDG 1001 Test	2	2016	2	2016
AGS DDG 1002 Test	4	2018	4	2018
DDG 1000 Gun Mount Deliveries	1	2012	2	2012
DDG 1001 Gun Mount Deliveries	1	2013	1	2013
DDG 1002 Gun Mount Deliveries	2	2016	4	2016
DDG 1001 AGS Magazine Deliveries	4	2012	1	2013
DDG 1002 AGS Magazine Deliveries	1	2015	2	2015

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy												DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0304231N: *Tactical Command System - MIP*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	1.311	0.979	1.170	2.140	-	2.140	1.171	1.146	1.168	1.189	Continuing	Continuing
2009: *OSIS Evolutionary Development (OED)*	1.311	0.979	1.170	2.140	-	2.140	1.171	1.146	1.168	1.189	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Radiant Mercury (RM) is a secure information platform that provides an automated means to sanitize, downgrade, guard, and transliterate formatted data at various classifications, compartments and releasabilities. It enables Combatant Commanders as well as operational commanders, afloat and ashore to disseminate and receive critical operational and intelligence information with Coalition and Allied forces.

Major Focus Area for FY14: Begin and complete development and in-house testing of Radiant Mercury (RM) Version 6.0. RM Version 6.0 will be a major software release on a new secure operating system requiring extensive and in-house testing prior to beginning the government Certification and Accreditation (C&A) process.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	0.979	1.170	1.141	-	1.141
Current President's Budget	0.979	1.170	2.140	-	2.140
Total Adjustments	0.000	0.000	0.999	-	0.999
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	1.000	-	1.000
• Rate/Misc Adjustments	0.000	0.000	-0.001	-	-0.001

Change Summary Explanation

Schedule:

1. CT&E of RM Version 5.1 slipped from 2Q 2012 to 3Q 2012 due to NSA schedule delays.
2. Delivery of RM Version 5.1 slipped from 3Q 2012 to 2Q 2013 due to NSA Schedule delays.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304231N: *Tactical Command System - MIP*

3. CT&E of RM Version 6.0 slipped from 3Q 2013 to 4Q 2014 due to development delays.
4. Delivery of RM Version 6.0 slipped from 4Q 2013 to 1Q 2015 due to development delays.
5. CT&E of RM Version 6.X slipped from 4Q 2015 to 1Q 2016 due to development delays.
6. Delivery of RM Version 6.X slipped from 1Q 2016 to 2Q 2016 due to NSA Schedule delays.

Technical: Not Applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304231N: *Tactical Command System - MIP*	PROJECT 2009: *OSIS Evolutionary Development (OED)*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2009: *OSIS Evolutionary Development (OED)*	1.311	0.979	1.170	2.140	-	2.140	1.171	1.146	1.168	1.189	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Radiant Mercury (RM): Trusted Information System (TIS) Radiant Mercury (RM) is a system that successfully provides accredited Cross Domain Solutions (CDS) to the Navy, the Department of Defense (DoD), and the Intelligence Community. TIS RM is a critical component of network-centric warfare, supporting joint operations and Allied and Coalition forces world-wide. The ability to pass sensitive and critical data across security domains and to our Allied and Coalition partners in a timely fashion can only be met by accredited Cross Domain Solution (CDS) systems such as RM. RM enables the United States (US) Navy to operate in a multi-national environment.

TIS RM provides automated, bi-directional sanitization, transliteration and guarding capability for formatted and unformatted data between security enclaves. RM helps ensure critical intelligence is provided quickly to operational decision-makers. TIS RM provides the capability to disseminate information for operating forces worldwide, including the operating forces of key allies in the Pacific, Central and Europe Command regions. This capability to move all-source intelligence-derived track information into the realm of the operational community significantly improves the situational awareness of tactical operators and planners. Unformatted data is handled by the Information Review Process (IRP). The system provides cross domain services to a wide variety of customers including Combatant Commanders, Air Force (Shared Early Warning program), Army (Blue Force Tracking program), Navy (Global Command and Control System - Maritime/J (GCCS-M/J) and Automatic Identification System (AIS)), Maritime Operations Centers (MOC), Distributed Common Ground System-Navy (DCGS-N), Tactical Ranges (TR), and numerous other Department of Defense (DoD) and Intelligence agencies.

Major Focus Area for FY14: Complete development of Radiant Mercury (RM) Version 6.0 to run on Security Enhanced (SE) Linux which removes dependency on proprietary vendor products whose pricing models have had a negative impact on the program and customers. Begin and complete the in-house testing and certification process for Version 6.0. SE Linux allows the developer to customize the Operating System (OS) for the RM application, increasing processing speeds and improving security. Improve remote configuration management by replacing the current version of Windows with a Lightweight Text Interface for initial configuration control and a web-based interface to configure the system. Use Free and Open Source (FOSS) to manage the Log, Audit Reduction, and Mission Assessment capabilities. Enhance the RM Message Analysis Generator (MAG) Generic Interface Functionality (MGIF) in order to take advantage of software and capabilities developed elsewhere within the Navy, Department of Defense, and Intelligence communities.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Radiant Mercury (RM)	0.979	1.170	2.140

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304231N: *Tactical Command System - MIP*	PROJECT 2009: *OSIS Evolutionary Development (OED)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Articles:	0	0	0
FY 2012 Accomplishments: Developed Radiant Mercury (RM) Version 5.1 based upon user feedback. The RM incremental update included improvements identified by operational commands and remedies to shortfalls as identified in the Unified Cross Domain Management Office (UCDMO) roadmap. Continued to develop and Integrate Radiant Mercury (RM) into Command, Control, Communications, Computers, & Intelligence (C4I) Programs of Record (POR) evolving architectures to include Consolidated Afloat Networks and Enterprise Services (CANES).			
FY 2013 Plans: Commence development of Radiant Mercury (RM) Version 6.0 to run on Security Enhanced (SE) Linux which removes dependency on proprietary vendor products whose pricing models have had a negative impact on the program and customers. SE Linux allows the developer to customize the Operating System (OS) for the RM application, increasing processing speed and improving security. Improve remote configuration management by replacing the current version of Windows with a Lightweight Text Interface for initial configuration control and a web-based interface to configure the system. Use Free and Open Source Software (FOSS) to manage the Log, Audit Reduction, and Mission Assessment capabilities. Enhance our Message Analysis Generator (MAG) Generic Interface Functionality (MGIF) in order to take advantage of software and capabilities developed elsewhere within the Navy, the Department of Defense (DoD), and the Intelligence Communities.			
FY 2014 Plans: Complete development of Radiant Mercury (RM) Version 6.0 to run on Security Enhanced (SE) Linux which removes dependency on proprietary vendor products whose pricing models have had a negative impact on the program and customers. Begin and complete the certification process for Version 6.0. SE Linux allows the developer to customize the Operating System (OS) for the RM application, increasing processing speeds and improving security. Improve remote configuration management by replacing the current version of Windows with a Lightweight Text Interface for initial configuration control and a web-based interface to configure the system. Use Free and Open Source (FOSS) to manage the Log, Audit Reduction, and Mission Assessment capabilities. Enhance the Radiant Mercury Message Analysis Generator (MAG) Generic Interface Functionality (MGIF) in order to take advantage of software and capabilities developed elsewhere within the Navy, Department of Defense, and Intelligence communities.			
Accomplishments/Planned Programs Subtotals	0.979	1.170	2.140

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304231N: *Tactical Command System - MIP*	PROJECT 2009: *OSIS Evolutionary Development (OED)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN/2608: *Trusted Information System (TIS)*	0.426	0.448	0.396		0.396	0.409	0.373	0.383	0.390	Continuing	Continuing

Remarks

D. Acquisition Strategy

Trusted Information Systems (TIS) Radiant Mercury (RM) provides automated, bi-directional sanitization, transliteration and guarding capability for formatted and unformatted data between security enclaves. RM helps ensure critical Indications and Warning intelligence is provided quickly to operational decision-makers. RM is actively involved in the cross domain dissemination of information for operating forces worldwide, including the operating forces of key allies involved in the Overseas Contingency Operations (OCO), in Pacific Command (PACOM), Europe Command (EUCOM) and Central Command (CENTCOM) regions. RM is a fee-for-service program, it receives partial funding from the Navy to cover basic program management and infrastructure costs. The remaining funds needed to keep the program operating are generated from a fee-for-service model which charges customers a Life Cycle Surcharge (LCS) on all new task orders and an Annual User Fee (AUF) on all operational RM systems currently fielded.

E. Performance Metrics

Provide and develop certified, accredited Cross Domain Solution (CDS) and transfer capabilities to the Department of Defense (DoD) and Intelligence Community, and provide the capability to disseminate and receive operational and intelligence information for 100% of authorized sites.
Completed 100% of certification, system and security testing of Radiant Mercury (RM) version 5.0.1 for release. Provide the capability to sanitize, downgrade, guard, and transliterate formatted data at various classifications, compartments and releasabilities to combat and operational commanders, coalition and allied forces at over 420 sites world wide and over 800 fielded systems.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304231N: *Tactical Command System - MIP*	PROJECT 2009: *OSIS Evolutionary Development (OED)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	C/CPFF	Lockheed Martin:Denver Colorado	0.890	0.676	Oct 2011	0.848	Dec 2012	1.300	Dec 2013	-		1.300	Continuing	Continuing	Continuing
Software Development	C/CPFF	Lockheed Martin:Denver Colorado	0.382	0.250	Oct 2011	0.255	Dec 2012	0.467	Dec 2013	-		0.467	Continuing	Continuing	Continuing
		Subtotal	1.272	0.926		1.103		1.767		0.000		1.767			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	C/CPFF	Lockheed Martin:Denver Colorado	0.000	0.000		0.000		0.250	Dec 2013	-		0.250	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		0.000		0.250		0.000		0.250			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	Booz Allen Hamilton:Virgina, Mclean	0.039	0.053	Nov 2011	0.067	Dec 2012	0.123	Dec 2013	-		0.123	Continuing	Continuing	Continuing
		Subtotal	0.039	0.053		0.067		0.123		0.000		0.123			

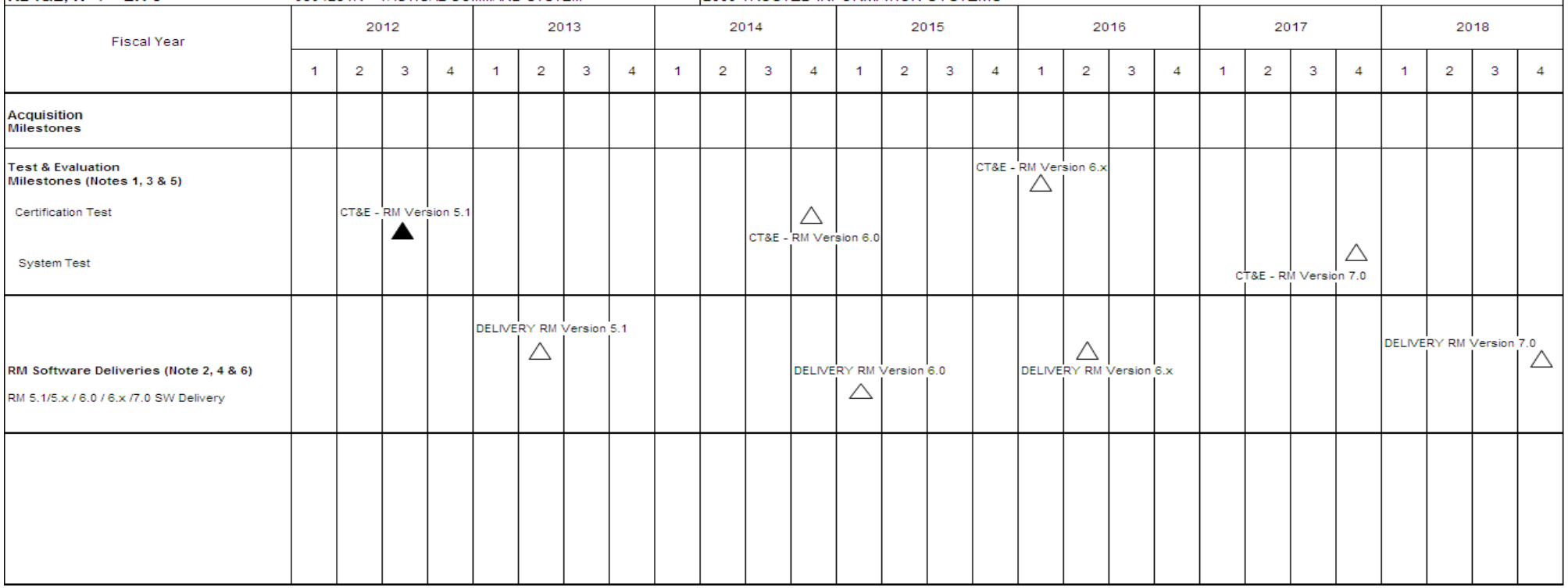
	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.311	0.979		1.170		2.140		0.000		2.140			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		**DATE:** April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0304231N: *Tactical Command System - MIP*	**PROJECT** 2009: *OSIS Evolutionary Development (OED)*

EXHIBIT R4, Schedule Profile — DATE: February 2013

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0304231N - TACTICAL COMMAND SYSTEM	2009 TRUSTED INFORMATION SYSTEMS



NOTES:

1. CT&E of RM Version 5.1 slipped from 2Q 2012 to 3Q 2012 due to NSA schedule delays.
2. Delivery of RM Version 5.1 slipped from 3Q 2012 to 2Q 2013 due to NSA Schedule delays.
3. CT&E of RM Version 6.0 slipped from 3Q 2013 to 4Q 2014 due to development delays.
4. Delivery of RM Version 6.0 slipped from 4Q 2013 to 1Q 2015 due to development delays.
5. CT&E of RM Version 6.X slipped from 4Q 2015 to 1Q 2016 due to development delays.
6. Delivery of RM Version 6.X slipped from 1Q 2016 to 2Q 2016 due to NSA Schedule delays.

Exhibit R-4, Schedule Profile

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0304231N: *Tactical Command System - MIP*	**PROJECT** 2009: *OSIS Evolutionary Development (OED)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2009				
RM Test & Evaluation Milestone - CT&E - RM Version 5.1	3	2012	3	2012
RM Test & Evaluation Milestone - CT&E - RM Version 6.0	4	2014	4	2014
RM Test & Evaluation Milestone - CT&E - RM Version 6.x	1	2016	1	2016
RM Test & Evaluation Milestone - CT&E - RM Version 7.0	4	2017	4	2017
RM Software - Delivery of RM Version 5.1	2	2013	2	2013
RM Software - Delivery of RM Version 6.0	1	2015	1	2015
RM Software - Delivery of RM Version 6.x	2	2016	2	2016
RM Software - Delivery of RM Version 7.0	4	2018	4	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy											DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*					R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*							
COST ($ in Millions)	**All Prior Years**	**FY 2012**	**FY 2013#**	**FY 2014 Base**	**FY 2014 OCO ##**	**FY 2014 Total**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**Cost To Complete**	**Total Cost**
Total Program Element	205.325	31.740	23.255	9.406	-	9.406	9.340	9.558	9.856	10.014	Continuing	Continuing
2134.: *Shipboard IW Exploit*	205.325	31.740	23.255	9.406	-	9.406	9.340	9.558	9.856	10.014	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Shipboard Information Warfare (IW) line includes the Ships Signal Exploitation Equipment (SSEE) Increment (Inc) E, F, G and modification programs. The SSEE program is a classified IW / Electronic Warfare (EW) and tactical cryptologic system that provides critical tactical intelligence, situational awareness, battlespace awareness, indications and warnings and hostile threat assessment. These systems provide the battle group and combatant commanders with the surface fleet's only EW non-kinetic capabilities ("Finish"). In addition they provide the battle groups with real time indications and warnings by acquisition ("Find") and localization ("Fix") of Signals of Interest (SOI). As an incremental acquisition program, Research, Development, Test & Evaluation (RDT&E) funding is required to have new technologies and associated new operational capabilities rapidly developed and transitioned as Pre-Planned Product Improvements (P3I) upgrades into the system's hardware/ software configuration. This program's funding incorporates P3I, new Commercial Off-the-Shelf (COTS) based technologies and software into the existing systems. Funding will also focus on developing and delivering expanded non-kinetic EW capabilities and net-centric Service Oriented Architecture (SOA), which includes the development, integration and test of Medusa and the SSEE Modification capabilities in support of "Ballistic Missile Defense (BMD) Executive Committee (EXCOM) Anti-Submarine Warfare (ASW) Chief of Naval Operations (CNO) Executive Board Information Operation (IO) Countermeasure Red Flash/Medusa (details classified)."

Integrated Communications and Data System (ICADS) AN/URC-148(V) is a Chief of Naval Operations (CNO) directed mission critical system which provides limited back-up, mobile communications capability for large deck naval platforms. The system provides a reliable, limited solution for re-establishing command and control for high value unit, subordinate units, and controlling fleet entities. ICADS is comprised of several mature systems. Specific program details held at a higher classification.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy					DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*			R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*		
B. Program Change Summary ($ in Millions)	**FY 2012**	**FY 2013**	**FY 2014 Base**	**FY 2014 OCO**	**FY 2014 Total**
Previous President's Budget	31.740	23.255	9.310	-	9.310
Current President's Budget	31.740	23.255	9.406	-	9.406
Total Adjustments	0.000	0.000	0.096	-	0.096
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	-0.001	-	-0.001
• Rate/Misc Adjustments	0.000	0.000	0.097	-	0.097

Change Summary Explanation

Due to FY12 Fleet reprioritization of requirements to complete the accelerated development and operationalization of the SSEE Modification Program in support of "BMD EXCOM ASW CEB Information Operation (IO) Countermeasure Red Flash/Medusa" efforts, SSEE Increment G program pre-acquisition activities were deferred to FY13 and SSEE Increment E program activities were extended to FY14.

Decrease in funding from FY13 to FY14 due to completion of installation, integration and testing of 2 SSEE Modification EDMs, as well as completion of integration and testing of the High Gain IO Topside Antenna.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2134.: *Shipboard IW Exploit*	205.325	31.740	23.255	9.406	-	9.406	9.340	9.558	9.856	10.014	Continuing	Continuing
Quantity of RDT&E Articles	0	2	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

The Shipboard Information Warfare (IW) line includes the Ships Signal Exploitation Equipment (SSEE) Increment (Inc) E, F, G and modification programs. The SSEE program is a classified IW / Electronic Warfare (EW) and tactical cryptologic system that provides critical tactical intelligence, situational awareness, battlespace awareness, indications and warnings and hostile threat assessment. These systems provide the battle group and combatant commanders with the surface fleet's only EW non-kinetic capabilities ("Finish"). In addition they provide the battle groups with real time indications and warnings by acquisition ("Find") and localization ("Fix") of Signals of Interest (SOI). As an incremental acquisition program, Research, Development, Test & Evaluation (RDT&E) funding is required to have new technologies and associated new operational capabilities rapidly developed and transitioned as Pre-Planned Product Improvements (P3I) upgrades into the system's hardware/ software configuration. This program's funding incorporates P3I, new Commercial Off-the-Shelf (COTS) based technologies and software into the existing systems. Funding will also focus on developing and delivering expanded non-kinetic EW capabilities and net-centric Service Oriented Architecture (SOA), which includes the development, integration and test of Medusa and the SSEE Modification capabilities in support of "Ballistic Missile Defense (BMD) Executive Committee (EXCOM) Anti-Submarine Warfare (ASW) Chief of Naval Operations (CNO) Executive Board Information Operation (IO) Countermeasure Red Flash/Medusa (details classified)."

SSEE Inc E will initiate software and hardware development of Medusa intended for integration into the SSEE Inc E system in support of accelerated development and operationalization of "BMD EXCOM ASW CEB IO Countermeasure Red Flash/Medusa.

SSEE Inc F will be developing software and hardware upgrades in support of emergent adversary Signal of Interest (SOI), inserting SOI and new technology enhancements via incremental software builds and corresponding hardware upgrades.

SSEE Inc G will integrate and improve upon all aspects of the "BMD EXCOM ASW CNO CEB IO Countermeasure Red Flash/Medusa" and expand upon the SSEE Inc F capability of exploiting signals throughout the Radio Frequency (RF) spectrum, in addition to focusing new technologies towards new and previously unexplored/ unexploited CYBER capabilities as we integrate into the Electronic Warfare (EW) Battle Management Network. SSEE Inc G will build off of the advancement of the Inc F system to automate and integrate all existing Ships Signal Exploitation Space (SSES) capabilities into a common user interface, while still advancing and incorporating new technologies through an open software architecture that allows for rapid integration and deployment of those capabilities.

The SSEE Modification program includes the "BMD EXCOM ASW CEB IO Countermeasure Red Flash/Medusa", capabilities of Paragon and Graywing. Paragon (Frequency Extension) is a classified Navy tactical signals intelligence frequency extension capability that will be integrated into Ships Signal Exploitation Equipment (SSEE) Inc E and F programs. This capability provides simultaneous detection, collection, processing, Electronic Warfare and display of communication intelligence

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*

data from hostile, high threat and adversary platforms in select frequency ranges that are not prosecuted or encountered today. Graywing is an electronic sensing and attack capability that shares the Paragon topside exploitation assets and will be integrated into SSEE Inc E and F systems.

ICADS (AN/URC-148(V)) is a Chief of Naval Operations (CNO) directed mission critical system which provides limited back-up, mobile communications capability for large deck naval platforms. The system provides a reliable, limited solution for re-establishing command and control for high value unit, subordinate units, and controlling fleet entities. ICADS is comprised of several mature systems. Specific program details held at a higher classification. FY14 funding for SSEE INC E will be used to develop additional capabilities for Medusa to prosecute relevant signal sets. Formulate additional target sets that address new Areas of Responsibility (AORs). Develop foundational plan that addresses ability of Medusas to communicate with each other.

FY14 funding for SSEE Inc F will continue pre-planned product improvements (P3I), expand the SOI processing capability, enhance SSEE Inc F remote capabilities and integrate Medusa HW into the SSEE Inc F scan chassis. FY14 funding for SSEE Inc G will continue pre-acquisition activities leading up to MS B and release the Request for Proposal (RFP). Continue to integrate and improve upon all aspects of the "BMD EXCOM ASW CNO CEB IO Countermeasure Red Flash/Medusa". Expand upon the SSEE Inc F capability of exploiting signals throughout the Radio Frequency (RF) spectrum, in addition to focusing new technologies towards new and previously unexplored/unexploited cyber capabilities as we integrate into the Electronic Warfare (EW) Battle Management Network.

FY14 funding for SSEE Mods will continue Phase 2 hardware and software development to provide capabilities to the Fleet in support of "BMD EXCOM ASW CEB IO Countermeasure Red Flash" including automation of key system operation and maintenance procedures; additional SOIs in support of Fleet needs; and enhance system capabilities for Graywing and Paragon in order to meet FRP performance thresholds.
Speed to Fleet efforts within SSEE Mods uses hardware provided in conjunction with Graywing development to deliver a self-contained, transportable system to provide shore based capabilities. In addition to providing an independent shore based capability the Speed to Fleet design provides an alternative Graywing receive and transmit subsystem design for risk reduction to Program of Record (POR). The transportable Speed to Fleet Graywing also provides an accessible platform to rapidly demonstrate new or improved Information Operations (IO) capabilities by providing a relatively low cost land-based field test article. Furthermore, the hardware developed under this project could be adapted as a roll-on/roll-off ship configuration to supplement the POR installations, if needed by the Fleet. Graywing is a sub system of the SSEE Modification Program to expand the capability of the Ship Signal Exploitation Equipment (SSEE). The POR will acquire multiple Graywing systems for ship installation over the period FY13 through FY17.

The Speed to Fleet efforts will deliver a new firmware spiral that increases the capability of Medusa to respond to a wider range of threat systems, and to improve aspects of its capabilities. It will also deliver a laboratory test system that will be used to validate future firmware changes. Medusa is a sub system of the SSEE POR. The POR will acquire multiple Medusa systems for ship installation over the period FY11 through FY17.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Ship Signals Exploitation Equipment Inc F (SSEE Inc F)	3.129	3.720	3.407
Articles:	0	0	0
FY 2012 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Expanded Signal of Interest (SOI) processing capability to allow collection of the newest high priority modern technology threat signals for tightly integrated IO/non-kinetic capabilities in support of time critical military strike operations and subsequent processing and analysis for timely and accurate situational awareness for force protection. Developed and delivered EW capabilities based on FY12 SOI threats for integration into SSEE Inc F. Developed the first phase of Software Development Kit (SDK) for the Application Store (App Store) concept which provides the framework for 3rd party developers to rapidly develop and integrate new capabilities into the SSEE Inc F system. Enhanced the SSEE Inc F remote capabilities providing increased functionality and capabilities to remote users. Continued software and hardware development of Medusa for inclusion into the SSEE Increment F hotel rack. Begin MEDUSA Phase II hardware and software development.			
FY 2013 Plans: Continue pre-planned product improvements (P3I) to provide enhanced and additional capabilities into the SSEE Inc F system. Expand SOI processing capabilities to allow collection of the newest high priority modern technology threat signals for tightly integrated IO/non-kinetic capabilities. Continue development and deliver EW capabilities based upon the warfighter identified, FY13 SOI threats (annually-updated) for integration into the SSEE Inc F system. Enhance the SSEE Inc F remote capabilities providing increased functionality and capabilities to remote users. Incorporate the next incremental software build, which will also allow transition of the SSEE Inc F software Graphic User Interface (GUIs) to SSEE Inc E. Continue development of third party software, including an Interface Control Drawing (ICD) and Software Development Kit (SDK) processes, which will allow new capabilities to be hosted into the SSEE Inc F system in support of the "BMD EXCOM ASW CEB IO Countermeasure Red Flash/Medusa". Complete software development of Medusa Phase II. Conduct Follow-On Test & Evaluation (FOT&E) to address correction of deficiencies as per Operational Test (OT) findings.			
FY 2014 Plans: Continue pre-planned product improvements (P3I) to provide enhanced and additional capabilities into the SSEE Inc F system. Expand SOI processing capability to allow collection of the newest high priority modern technology threat signals for tightly integrated IO/non-kinetic capabilities in support of time critical military strike operations and subsequent processing and analysis for timely and accurate situational awareness for force protection. Develop and deliver EW capabilities based upon the warfighter identified, FY14 SOI threats (annually-updated) for integration into the SSEE Inc F system. Enhance the SSEE Inc F remote capabilities providing increased functionality and capabilities to remote users. Integrate Medusa HW into the SSEE Inc F scan chassis. Maintain cognizant of current signal set and make additions to the system as needed.			
Title: Ship Signals Exploitation Equipment Inc G (SSEE Inc G)	0.000	0.400	0.840
Articles:	0	0	0
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Commence pre-acquisition activities with a prime focus on analyzing and documenting the results of the research studies on cyber capabilities (details classified) and their incorporation into the SSEE Inc G software. Determine if these capabilities are feasible in the maritime environment, and employ an Analysis of Alternative (AoA) based on these results. ***FY 2014 Plans:*** Continue pre-acquisition activities leading up to MS B. Continue to integrate and improve upon all aspects of the "BMD EXCOM ASW CNO CEB IO Countermeasure Red Flash/Medusa". Expand upon the SSEE Inc F capability of exploiting signals throughout the Radio Frequency (RF) spectrum, in addition to focusing new technologies towards new and previously unexplored/unexploited CYBER capabilities as we integrate into the Electronic Warfare (EW) Battle Management Network. Build off of the advancement of the SSEE Inc F system to automate and integrate all existing Ships Signal Exploitation Space (SSES) capabilities into a common user interface, while still advancing and incorporating new technologies through an open software architecture that allows for rapid integration and deployment of those capabilities into the SSEE Inc G baseline. Release Request for Proposal (RFP) for SSEE Inc G.			
Title: Integrated Communicatios and Data Systems (ICADS) ***Articles:*** ***FY 2013 Plans:*** FY13 funding is required to complete acquisition documentation to support Milestone C production decision. Funding will develop and integrate system design variants to support refined COMPACFLT requirements and support multiple test events. Specific program details held at a higher classification.	0.000	3.787 0	0.000
Title: SSEE Modifications ***Articles:*** ***FY 2012 Accomplishments:*** Accelerated development, integration and testing of the Paragon and Graywing capability. Continued Phase I development towards MS C, refined and completed final Engineering Development Model (EDM) design for the High Gain Information Operation (IO) and Hemispherical Broad Band Direction Finding antennas and below-deck rack components. Procured EDM hardware, assembled, integrated 1 Paragon and 1 Graywing EDM #1. Initiated laboratory testing for the below deck integration to the topside antenna suite, integration and testing of Paragon/Graywing software with SSEE Increment F software. Began development of the test plan for Developmental Test (DT)/Operational Assessment (OA) in support of MS C. ***FY 2013 Plans:*** Receive delivery of 1 Paragon and 1 Graywing EDM2 for environmental testing. Complete integration and testing with the High Gain IO topside antenna and install EDM #2 for Paragon/Graywing Phase I (OA) in support of MS C. Commence development efforts for Phase II, which provides: automation of key system operation and maintenance procedures; additional SOIs in support	26.611 2	12.651 0	4.060 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
of Fleet needs; and enhances system capabilities for Graywing and Paragon in order to meet Full Rate Production (FRP) performance thresholds. ***FY 2014 Plans:*** Continue SSEE Mods Phase 2 hardware and software development to provide: capabilities to the Fleet in support of "BMD EXCOM ASW CEB IO Countermeasure Red Flash" including automation of key system operation and maintenance procedures; additional SOIs in support of Fleet needs; and enhance system capabilities for Graywing and Paragon in order to meet FRP performance thresholds. Provide test plans and procedures for follow on testing and evaluation, including an updated Test and Evaulation Master Plan (TEMP). Conduct integration and testing in support of correction of deficiencies from Operational Assessment (OA). FY14 efforts support the Full Rate Production (FRP) decision in FY15.			
Title: Ship Signals Exploitation Equipment Inc E (SSEE Inc E) ***Articles:*** ***FY 2012 Accomplishments:*** Initiated software and hardware development Phase II of Medusa intended for integration into the SSEE Inc E system in support of accelerated development and operationalization of "BMD EXCOM ASW CEB IO Countermeasure Red Flash/Medusa. ***FY 2013 Plans:*** Complete software development of Medusa Phase II which integrates the Direction Finding (DF) and Information Operations (IO) capabilities to the SSEE Inc E system. Initiate Switchblade Phase III efforts for SSEE Inc E which ports the SSEE Inc F service layer to SSEE Inc E that provides common user interface and remoting capabilities, which will also allow transition of the SSEE Inc F software Graphic User Interface (GUIs) to SSEE Inc E. ***FY 2014 Plans:*** Develop additional capabilities for Medusa to prosecute relevant signal sets. Formulate additional target sets that address new Areas of Responsibility (AORs.) Develop foundational plan that addresses ability of Medusas to communicate with each other.	2.000 0	1.500 0	0.200 0
Title: Shipboard IW Exploit ***Articles:*** ***FY 2013 Plans:*** Shore based Graywing: - Assemble system and perform end-to-end hardware testing. - Integrate and test the control software including user interface for operations, displays and diagnostics. - Integrate and test the Mission Planning Tool modified for land operation. - Perform end-to-end testing of the system. Document results in after-test reports. - Develop operator user manuals, diagnostic procedures and a capabilities description.	0.000	1.197 0	0.899 0

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Medusa Upgrade: - Conduct benchtop testing of new Medusa firmware against designated signals. - Conduct field test against surrogate threat system. Document test results. - Document firmware modifications. ***FY 2014 Plans:*** Graywing: - Provide support to the fleet for test and evaluation of the system that is to be delivered in early FY14. TACAID: - Continued development of an enhanced tactical decision aid (TACAID) which will provide additional capabilities compared to the baseline TACAID being incorporated into Ship Signals Exploitation Equipment (SSEE) under the SSEE prototype tool and at sea testing.			
Accomplishments/Planned Programs Subtotals	31.740	23.255	9.406

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPN / 2360: *Shipboard IW Exploit*	99.447	107.060	123.656		123.656	150.505	152.015	164.646	167.936	Continuing	Continuing
• OPN / 2188: *Electronic Warfare MILDEC*	16.841	0.000	8.958		8.958	8.992	0.000	0.000	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acquisition, management and contracting strategies are to support engineering and manufacturing development by providing funds to a Prime Contractor and Space & Naval Warfare Systems Command (SPAWAR) Systems Center (SSC) - Atlantic, SSC - Pacific and miscellaneous contractors, with management oversight by SPAWAR.

Funding supports development and demonstration to rapidly deliver advanced and improved Information Operation (IO) capabilities to the Fleet. The Shore based Graywing unit developed will provide a rapidly deployable capability for the protection of land based resources. Multiple copies of the first article can be replicated depending on operational needs. These systems could also be used as a carry on capability to supplement the Graywing ship installations via the SSEE Mods ACAT III program or to those ships that are not SSEE capable. The Medusa upgrade adds additional capabilities via software to address a different class of radars which are proliferating, allowing backfit into existing systems via a new software load.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*

E. Performance Metrics

SSEE Increment F will incorporate pre-planned product improvements (P3I) to provide enhanced and additional capabilities into the SSEE Inc F system. SSEE Inc F improvements along with the addition of the SSEE Modifications and Medusa capabilities will expand signals of interest (SOI) processing capability to allow collection of the newest high priority modern technology threat signals for tightly integrated IO/non-kinetic capabilities in support of time critical military strike operations and subsequent processing and analysis for timely and accurate situational awareness for force protection.

Program of Record (POR) specification has established Graywing performance metrics that will be met in the Speed to Fleet transportable version. Field testing will be used to verify this performance. Medusa firmware modifications will meet existing Medusa performance metrics for the new signal classes and will be verified via bench testing and end-to-end field testing.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	Various	Various:Various	73.395	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Primary Hardware Development	WR	SSC PAC:San Diego, CA	1.125	2.200	Nov 2011	0.700	Nov 2012	0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering	Various	Various:Various	22.309	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Systems Engineering	C/CPAF	Classified Contract:Classified Contract	0.950	3.159	Nov 2011	2.550	Nov 2012	0.830	Nov 2013	-		0.830	Continuing	Continuing	Continuing
Systems Engineering	WR	SSC PAC:San Diego, CA	0.750	1.650	Nov 2011	0.875	Nov 2012	0.375	Nov 2013	-		0.375	Continuing	Continuing	Continuing
Systems Engineering	WR	SSC LANT:Charleston, SC	2.485	1.487	Nov 2011	0.750	Nov 2012	0.322	Nov 2013	-		0.322	Continuing	Continuing	Continuing
Training Development	WR	SSC PAC:San Diego, CA	1.696	0.613	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Primary Hardware Development	C/CPAF	Classified Contract:Classified Contract	0.000	6.684	Nov 2011	4.547	Nov 2012	2.052	Nov 2013	-		2.052	Continuing	Continuing	Continuing
Primary Hardware Development	WR	NRL:Washington, DC	0.000	1.900	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Primary Software Development	WR	NRL:Washington, DC	0.000	0.720	Nov 2011	0.500	Nov 2012	0.250	Nov 2013	-		0.250	0.000	1.470	
Integration, Assembly & Test (PMP Dev)	WR	SSC PAC:San Diego, CA	0.000	1.455	Nov 2011	0.359	Apr 2013	0.129	Nov 2013	-		0.129	0.000	1.943	
Integration, Assembly & Test (PMP Dev)	WR	NRL:Washington, DC	0.000	0.800	Nov 2011	0.870	Nov 2012	0.239	Nov 2013	-		0.239	0.000	1.909	
Software Development	Various	Various:Various	40.776	0.000		0.000		0.000		-		0.000	0.000	40.776	
Integration, Assembly & Test	WR	OPTEVFOR:Norfolk, VA	0.000	0.000		0.039	Nov 2012	0.039	Nov 2013	-		0.039	0.000	0.078	
Software Development	C/CPAF	Classified Contracts:Classified Contracts	18.400	1.934	Nov 2011	3.509	Apr 2013	1.690	Nov 2013	-		1.690	0.000	25.533	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	WR	SSC LANT:Charleston, SC	0.000	0.300	Nov 2011	0.447	Nov 2012	0.150	Nov 2013	-		0.150	0.000	0.897	
Software Development	WR	SSC PAC:San Diego, CA	0.857	0.171	Nov 2011	0.300	Nov 2012	0.155	Nov 2013	-		0.155	0.000	1.483	
Integration, Assembly & Test	C/CPAF	Classified Contracts:Classified Contracts	0.000	1.581	Nov 2011	0.364	Apr 2013	0.287	Nov 2013	-		0.287	0.000	2.232	
Integration, Assembly & Test	WR	NAVSEA:NAVSEA	0.000	0.112	Nov 2011	0.000		0.000		-		0.000	0.000	0.112	
Integration, Assembly & Test	WR	NUWC New Port:NUWC New Port	0.000	0.075	Nov 2011	0.000		0.000		-		0.000	0.000	0.075	
Integration, Assembly & Test	WR	NSWC Dahlgren:NSWC Dahlgren	0.000	0.042	Nov 2011	0.000		0.000		-		0.000	0.000	0.042	
		Subtotal	162.743	24.883		15.810		6.518		0.000		6.518			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Training Development	Various	Various:Various	0.079	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Training Development	C/CPFF	Classified Contract:Classified Contract	0.445	0.247	Nov 2011	0.375	Nov 2012	0.100	Nov 2013	-		0.100	Continuing	Continuing	Continuing
Integrated Logistics Support	Various	Various:Various	2.206	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Integrated Logistics Support	C/CPFF	Classified Contract:Classified Contract	0.000	0.100	Nov 2011	0.200	Apr 2013	0.087	Nov 2013	-		0.087	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Configuration Management	WR	SSC Lant:Charleston, SC	1.390	0.123	Nov 2011	0.125	Nov 2012	0.049	Nov 2013	-		0.049	Continuing	Continuing	Continuing
Configuration Management	WR	SSC PAC:San Diego, CA	0.113	0.123	Nov 2011	0.100	Nov 2012	0.050	Nov 2013	-		0.050	Continuing	Continuing	Continuing
Technical Data	Various	Various:Various	0.542	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Technical Data	WR	SSC PAC:San Diego, CA	0.219	0.837	Nov 2011	0.400	Apr 2013	0.155	Nov 2013	-		0.155	Continuing	Continuing	Continuing
Training Development	WR	SSC LANT:Charleston, SC	0.000	0.100	Nov 2011	0.125	Nov 2012	0.079	Nov 2013	-		0.079	0.000	0.304	
Integrated Logistic Support	WR	SSC LANT:Charleston, SC	0.000	0.000		0.250	Nov 2012	0.087	Nov 2013	-		0.087	0.000	0.337	
EDM Installation	WR	SSC LANT IMO:Charleston, SC	0.000	1.500	Nov 2011	0.000		0.000		-		0.000	0.000	1.500	
		Subtotal	4.994	3.030		1.575		0.607		0.000		0.607			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various:Various	7.375	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Developmental Test & Evaluation	WR	SSC PAC:San Diego, CA	0.505	0.123	Nov 2011	0.492	Nov 2012	0.152	Nov 2013	-		0.152	Continuing	Continuing	Continuing
Developmental Test & Evaluation	WR	SSC LANT:Charleston, SC	0.817	0.240	Nov 2011	0.207	Nov 2012	0.089	Nov 2013	-		0.089	Continuing	Continuing	Continuing
Developmental Test & Evaluation	WR	NRL:Washington, DC	0.400	0.140	Nov 2011	0.585	Nov 2012	0.210	Nov 2013	-		0.210	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	OPTEVFOR:Norfolk, VA	3.078	0.395	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Assets	WR	SSC PAC:San Diego, CA	1.747	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test Assets	WR	SSC LANT:Charleston, SC	0.070	0.085	Nov 2011	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	SSC LANT:Charleston, SC	0.000	0.000		0.500	Nov 2012	0.000		-		0.000	0.000	0.500	
Developmental Test & Evaluation	WR	OPTEVFOR:Norfolk, VA	0.000	0.000		0.125	Apr 2013	0.000		-		0.000	0.000	0.125	
Developmental Test & Evaluation	C/CPFF	Classified Contracts:Classified Contracts	0.000	0.600	Nov 2011	0.233	Nov 2012	0.000		-		0.000	0.000	0.833	
Operational Test & Evaluation	C/CPFF	Classified Contracts:Classified Contracts	0.000	0.000		0.090	Nov 2012	0.000		-		0.000	0.000	0.090	
Developmental Test and Evaluation	WR	NRL:Washington DC	0.000	0.000		1.197	Nov 2012	0.899	Nov 2013	-		0.899	0.000	2.096	Continuing
		Subtotal	13.992	1.583		3.429		1.350		0.000		1.350			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	Various:Various	0.933	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Contractor Engineering Support	C/CPFF	Classified Contract:Classified Contract	0.952	0.652	Nov 2011	0.315	Nov 2012	0.100	Nov 2013	-		0.100	Continuing	Continuing	Continuing
Government Engineering Support	Various	Various:Various	1.290	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0304785N: *Tactical Cryptologic Systems*	PROJECT 2134.: *Shipboard IW Exploit*

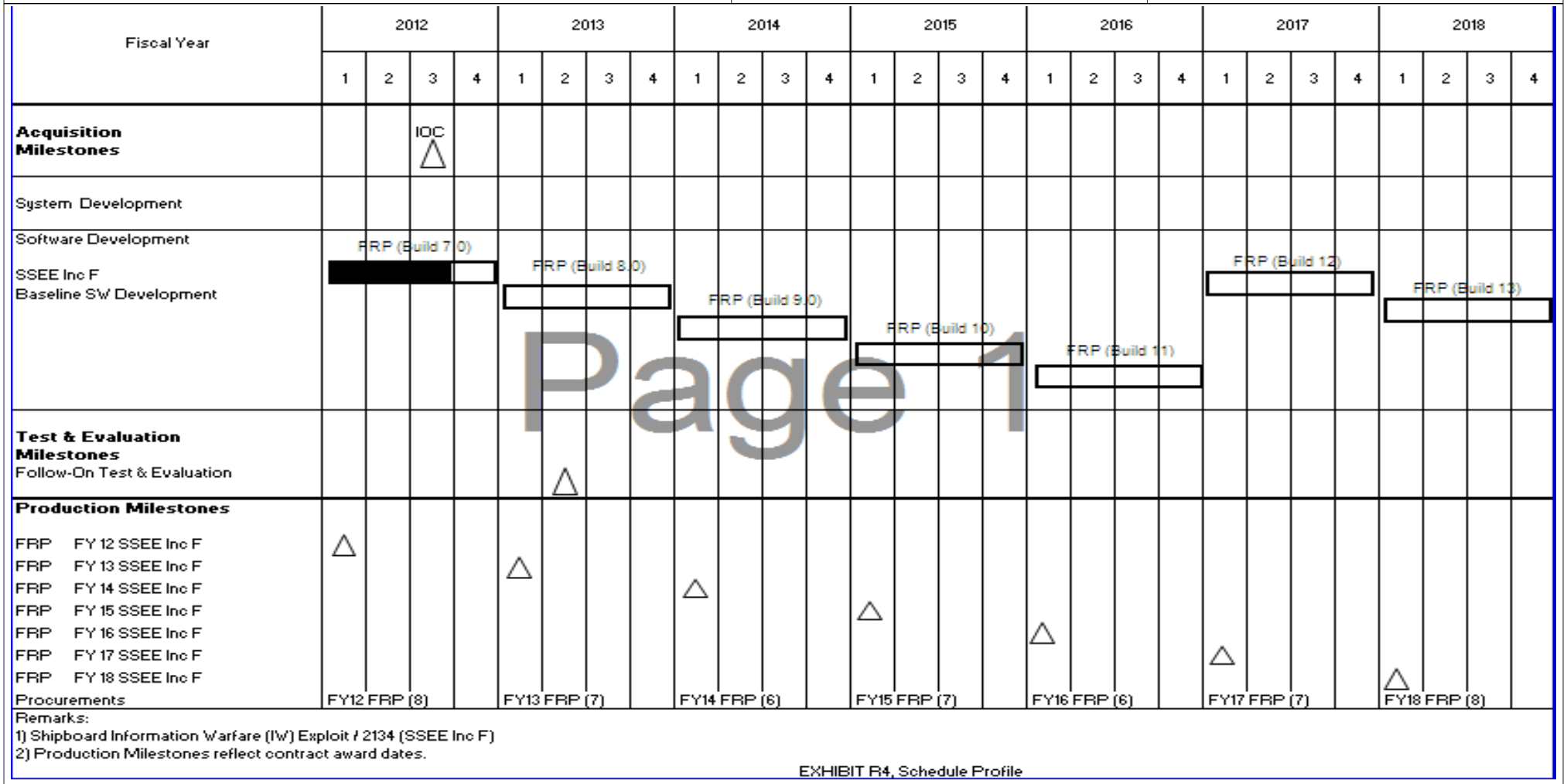
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	SSC LANT:Charleston, SC	0.407	0.525	Nov 2011	0.339	Nov 2012	0.209	Nov 2013	-		0.209	Continuing	Continuing	Continuing
Government Engineering Support	WR	SSC PAC:San Diego, CA	1.040	0.310	Nov 2011	0.365	Nov 2012	0.139	Nov 2013	-		0.139	Continuing	Continuing	Continuing
Program Management Support	Various	Various:Various	16.211	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Management Support	C/CPFF	Classified Contract:Classified Contract	0.535	0.614	Nov 2011	0.362	Apr 2013	0.159	Nov 2013	-		0.159	Continuing	Continuing	Continuing
Program Management Support	WR	SSC LANT:Charleston, SC	0.065	0.063	Nov 2011	0.440	Nov 2012	0.100	Nov 2013	-		0.100	Continuing	Continuing	Continuing
Travel	WR	SPAWAR:San Diego, CA	2.101	0.080	Nov 2011	0.070	Nov 2012	0.049	Nov 2013	-		0.049	Continuing	Continuing	Continuing
Acquisition Workforce	Various	Various:Various	0.062	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Contractor Engineering Support	C/CPFF	SPAWAR:San Diego, CA	0.000	0.000		0.550	Nov 2012	0.175	Nov 2013	-		0.175	0.000	0.725	
		Subtotal	23.596	2.244		2.441		0.931		0.000		0.931			

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	205.325	31.740		23.255		9.406		0.000		9.406			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0304785N: *Tactical Cryptologic Systems*	**PROJECT** 2134.: *Shipboard IW Exploit*

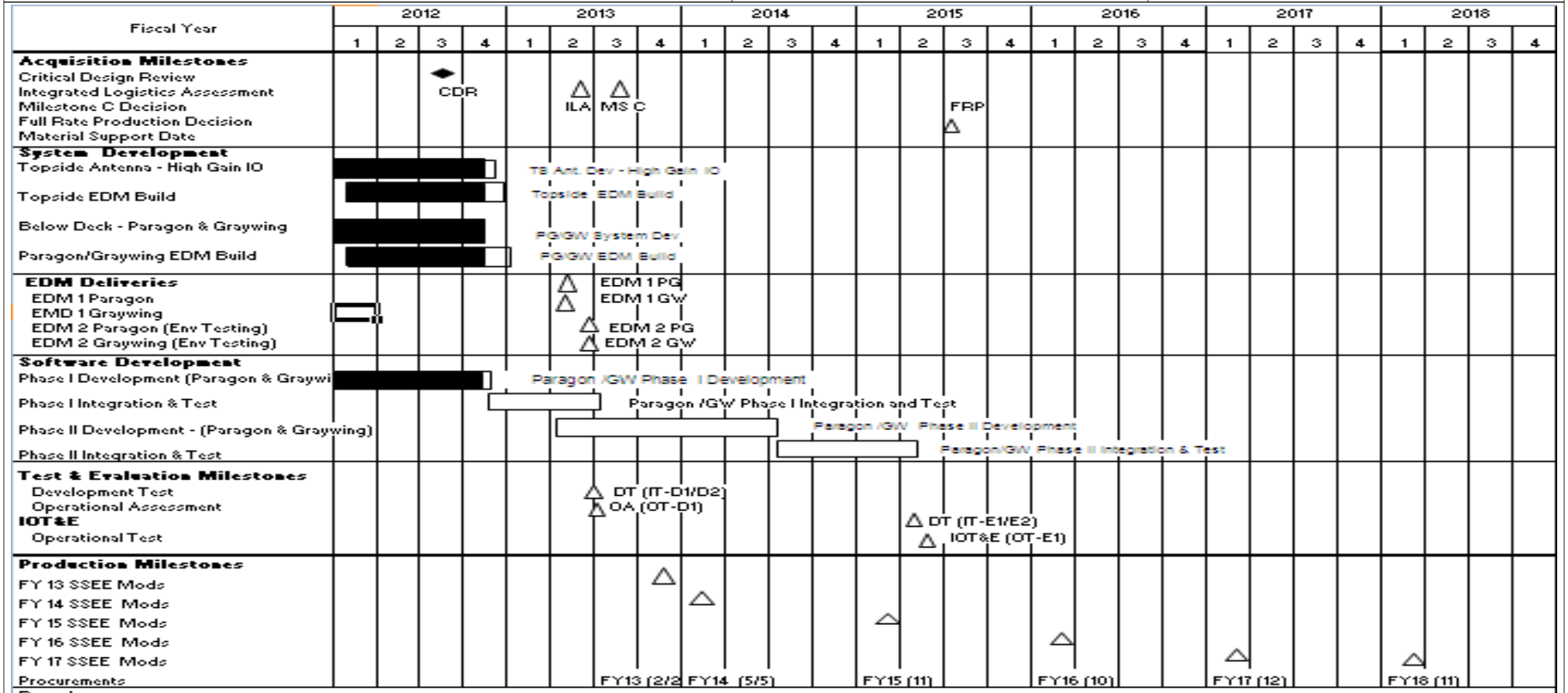


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Remarks:
1) Shipboard Information Warfare (IW) Exploit / 2134 (SSEE Inc F)
2) Production Milestones reflect contract award dates.

EXHIBIT R4, Schedule Profile

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0304785N: *Tactical Cryptologic Systems*	**PROJECT** 2134.: *Shipboard IW Exploit*



Remarks:
1) Shipboard Information Warfare (IW) Exploit / 2134 (SSEE Mods)
2) Production Milestones reflect contract award dates
3) Paragon and Grawing are fielded seperately until Q3 FY15 Fielding decision when Graywing capabilities will be integrated into Paragon
4) FY15 Production Milestones include 8 Systems, 1 Maintenance and 2 Operator Training Systems EXHIBIT R4, Schedule Profile
5) FY16 Production Milestones include 9 Systems, 1 Operator Training System

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0304785N: *Tactical Cryptologic Systems*	**PROJECT** 2134.: *Shipboard IW Exploit*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SSEE Inc F				
Inc F - Software Development	1	2012	4	2018
Inc F - Initial Operational Capability (IOC)	3	2012	3	2012
Inc F - Follow-On Test and Evaluation	2	2013	2	2013
SSEE Modifications				
SSEE Modification - Critical Design Review	3	2012	3	2012
SSEE Modification - Integrated Logistics Assessment	2	2013	2	2013
SSEE Modification - Phase I Fielding Decision (MSC)	3	2013	3	2013
SSEE Modification - Phase II Fielding Decision (FRP)	3	2015	3	2015
SSEE Modification - System Development (Topside/Below Deck)	1	2012	3	2012
SSEE Modification - EDM Build	1	2012	4	2012
SSEE Modification - EDM #1 (Paragon & Graywing)	2	2013	2	2013
SSEE Modification - EDM #2 (Paragon & Graywing)	2	2013	2	2013
SSEE Modification - Software Development (Phase I)	1	2012	4	2012
SSEE Modification - Software Integration & Test (Phase I)	4	2012	3	2013
SSEE Modification - Software Development (Phase II)	2	2013	3	2014
SSEE Modification - Software Integration & Test (Phase II)	3	2014	2	2015
SSEE Modification - DT (Phase I)	3	2013	3	2013
SSEE Modification - OT (Phase I)	3	2013	3	2013
SSEE Modification - DT (Phase II)	2	2015	2	2015
SSEE Modification - IOT&E (Phase II)	2	2015	2	2015

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0305124N: *Special Applications Program*

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	0.000	100.000	0.000	22.800	-	22.800	26.000	49.500	50.150	51.100	Continuing	Continuing
3103: *Intelligence Engineering*	0.000	0.000	0.000	22.800	-	22.800	26.000	49.500	50.150	51.100	Continuing	Continuing
9999: *Congressional Adds*	0.000	100.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	100.000

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

B. Program Change Summary ($ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	100.000	0.000	0.000	-	0.000
Current President's Budget	100.000	0.000	22.800	-	22.800
Total Adjustments	0.000	0.000	22.800	-	22.800
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	0.000	0.000	22.800	-	22.800

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2012	FY 2013
Project: 9999: *Congressional Adds*		
Congressional Add: *Classified Add (Cong)*	100.000	-
Congressional Add Subtotals for Project: 9999	100.000	0.000
Congressional Add Totals for all Projects	100.000	0.000

Change Summary Explanation

Technical: Not applicable.

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0305124N: *Special Applications Program*

Schedule: Not applicable.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0305124N: *Special Applications Program*	PROJECT 3103: *Intelligence Engineering*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
3103: *Intelligence Engineering*	0.000	0.000	0.000	22.800	-	22.800	26.000	49.500	50.150	51.100	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Intelligence Engineering	0.000	0.000	22.800
Articles:			0
Description: Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels. ***FY 2014 Plans:*** N/A			
Accomplishments/Planned Programs Subtotals	0.000	0.000	22.800

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

E. Performance Metrics

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0305124N: *Special Applications Program*	PROJECT 3103: *Intelligence Engineering*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Item 1	Various	Classified:Classified	0.000	0.000		0.000		1.824	Oct 2013	-		1.824	Continuing	Continuing	Continuing
Item 2	Various	Classified:Classified	0.000	0.000		0.000		1.952	Nov 2013	-		1.952	0.000	1.952	
Item 3	Various	Classified:Classified	0.000	0.000		0.000		1.100	Dec 2013	-		1.100	0.000	1.100	
Item 4	Various	Classified:Classified	0.000	0.000		0.000		5.500	Jan 2014	-		5.500	0.000	5.500	
Item 5	Various	Classified:Classified	0.000	0.000		0.000		2.000	Mar 2014	-		2.000	0.000	2.000	
Item 6	Various	Classified:Classified	0.000	0.000		0.000		2.400	Apr 2014	-		2.400	0.000	2.400	
Item 7	Various	Classified:Classified	0.000	0.000		0.000		2.100	May 2014	-		2.100	0.000	2.100	
Item 8	Various	Classified:Classified	0.000	0.000		0.000		1.580	Jun 2014	-		1.580	0.000	1.580	
Item 9	Various	Classified:Classified	0.000	0.000		0.000		1.370	Jul 2014	-		1.370	0.000	1.370	
Item 10	Various	Classified:Classified	0.000	0.000		0.000		1.200	Aug 2014	-		1.200	0.000	1.200	
Item 11	Various	Classified:Classified	0.000	0.000		0.000		1.774	Sep 2014	-		1.774	0.000	1.774	
		Subtotal	0.000	0.000		0.000		22.800		0.000		22.800			

Remarks

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		22.800		0.000		22.800			

Remarks

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0305124N: *Special Applications Program*	PROJECT 9999: *Congressional Adds*	

COST ($ in Millions)	All Prior Years	FY 2012	FY 2013#	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
9999: *Congressional Adds*	0.000	100.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	100.000
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

The FY 2014 OCO Request will be submitted at a later date

Note

Congressional add funding.

A. Mission Description and Budget Item Justification

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2012	FY 2013
Congressional Add: Classified Add (Cong)	100.000	-
FY 2012 Accomplishments: Congressional add.		
Congressional Adds Subtotals	100.000	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

E. Performance Metrics

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 5: *System Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0305124N: *Special Applications Program*	PROJECT 9999: *Congressional Adds*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	FY 2012 Cost	FY 2012 Award Date	FY 2013 Cost	FY 2013 Award Date	FY 2014 Base Cost	FY 2014 Base Award Date	FY 2014 OCO Cost	FY 2014 OCO Award Date	FY 2014 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Item 1	SS/CPFF	Classified:Classified	0.000	30.000	Mar 2013	0.000		0.000		-		0.000	0.000	30.000	
Item 2	SS/CPFF	Classified:Classified	0.000	5.000	Mar 2013	0.000		0.000		-		0.000	0.000	5.000	
Item 3	MIPR	Classified:Classified	0.000	34.000	Oct 2012	0.000		0.000		-		0.000	0.000	34.000	
Item 4	Various	Classified:Classified	0.000	25.000	Oct 2012	0.000		0.000		-		0.000	0.000	25.000	
Item 5	Various	Classified:Classified	0.000	3.000	Jun 2013	0.000		0.000		-		0.000	0.000	3.000	
Item 6	SS/CPFF	Classified:Classified	0.000	3.000	Mar 2013	0.000		0.000		-		0.000	0.000	3.000	
		Subtotal	0.000	100.000		0.000		0.000		0.000		0.000	0.000	100.000	

Remarks

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	100.000		0.000		0.000		0.000		0.000	0.000	100.000	

Remarks

Additional details with respect to this line item are held at a higher classification. This line item is reported to Congress via separate channels.