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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0604261N: <i>Acoustic Search Sensors</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	63.041	48.838	34.299	-	34.299	30.416	27.227	21.619	18.552	Continuing	Continuing
0480: <i>ASW Sensors & Proc</i>	30.803	23.850	19.453	-	19.453	19.815	17.704	13.990	14.237	Continuing	Continuing
3224: <i>High Altitude ASW</i>	32.238	24.988	14.846	-	14.846	10.601	9.523	7.629	4.315	Continuing	Continuing

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.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	64.834	56.509	22.577	-	22.577
Current President's Budget	63.041	48.838	34.299	-	34.299
Total Adjustments	-1.793	-7.671	11.722	-	11.722
• Congressional General Reductions	-	-0.060			
• Congressional Directed Reductions	-	-7.611			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.417	-			
• Program Adjustments	-	-	11.661	-	11.661
• Rate/Misc Adjustments	-	-	0.061	-	0.061
• Congressional General Reductions	-0.376	-	-	-	-
Adjustments					

Change Summary Explanation

Technical: Not applicable.

Schedule:

H0480. Multi-Static Active Coherent (MAC) (Schedule 1). Due to platform baseline software and subsequent test delay moved MS C from 1Q/12 to 2Q/12.

H0480. Multi-Static Active Coherent (MAC) (Schedule 2). No major changes have occurred to the schedule since PB12.

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<p>H3224. High Altitude Anti-Submarine Warfare (HAASW). The Effectiveness and Suitability study results led us to a preliminary HAASW schedule as represented in the Milestone (MS) A decision and delayed MS A, MS B and MS C. The Dropsonde hardware is now replaced with algorithm software. To depict a more accurate schedule, Initial Operational Test & Evaluation is aligned with the P-8 Increment 2. Test articles now reflect alignment with sonobuoy modification.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604261N: Acoustic Search Sensors				PROJECT 0480: ASW Sensors & Proc			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
0480: ASW Sensors & Proc	30.803	23.850	19.453	-	19.453	19.815	17.704	13.990	14.237	Continuing	Continuing
Quantity of RDT&E Articles	0	500	0	0	0	0	100	0	0		

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 Extended Echo Ranging family of multi-static active ASW 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 600 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 2011	FY 2012	FY 2013
Title: Complete APB System Qualification Test /Fleet Release	0.970	1.377	2.888
Articles:	0	0	0
FY 2011 Accomplishments: Completed Advanced Processing Build (APB) (2) software development and integration on P-3C. Commenced Technical Evaluation of software in October 2010. Initiated software development/Integration for APB(3).			
FY 2012 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2011	FY 2012	FY 2013		
Complete APB(2) Tech Eval and get approval for software release in September 2012. Continue software development/Integration for APB(3).											
FY 2013 Plans: Release APB(2) software to Fleet. Continue software development/Integration for APB(3).											
Title: Multi-static Active Coherent (MAC)							29.833	22.473	16.565		
Articles:							0	500	0		
FY 2011 Accomplishments: Continued development/maturing of MAC Airborne Operational Program (AOP) and Tactical Mission Software (TMS) software builds. Completed delivery of Engineering Development Models (EDM) of the SSQ-125 coherent source sonobuoy. Commenced Integrated Test and Evaluation of MAC System.											
FY 2012 Plans: Conduct Milestone C and Low Rate Initial Production decision briefs with Milestone Decision Authority (MDA). Conduct Operational Test (OT) flights in 3rd quarter FY-2012.											
FY 2013 Plans: Release MAC software to Fleet in 1st quarter. Conduct decision brief for Full Rate Production (FRP) 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.											
Accomplishments/Planned Programs Subtotals							30.803	23.850	19.453		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPN/4048: Sonobuoys - All Types	0.000	11.850	9.971	0.000	9.971	40.978	39.254	37.375	33.920	Continuing	Continuing
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 Multi Static Active Coherent (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.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT						
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				PE 0604261N: Acoustic Search Sensors				0480: ASW Sensors & Proc						
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	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	-		2.288	Continuing	Continuing	Continuing	
Primary Hdw Development	SS/CPIF	ERAPSCO:FT. WAYNE IN	3.350	3.350	Oct 2011	3.658	Dec 2012	-		3.658	Continuing	Continuing	Continuing	
Subtotal			21.855	4.750		5.946		-		5.946				
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	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	Continuing	Continuing	Continuing	
Software Development	SS/CPIF	LOCKHEED MARTIN:MANASSAS VA	3.000	3.000	Oct 2011	1.000	Nov 2012	-		1.000	Continuing	Continuing	Continuing	
Software Development	Various	VARIOUS:VARIOUS	7.802	0.529	Oct 2011	0.457	Nov 2012	-		0.457	Continuing	Continuing	Continuing	
Studies & Analysis	WR	NAWCAD:PATUXENT RIVER, MD	12.340	1.000	Oct 2011	0.562	Nov 2012	-		0.562	Continuing	Continuing	Continuing	
Technical Data	WR	NAWCAD:PATUXENT RIVER, MD	15.359	-		-		-		-	Continuing	Continuing	Continuing	
Subtotal			57.705	5.529		3.019		-		3.019				
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	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	Continuing	Continuing	Continuing	
Subtotal			17.700	2.000		1.000		-		1.000				

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604261N: <i>Acoustic Search Sensors</i>				PROJECT 0480: <i>ASW Sensors & Proc</i>					

Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Eng Spt (APB)	Various	VARIOUS:VARIOUS	33.903	3.724	Nov 2011	3.620	Nov 2012	-		3.620	Continuing	Continuing	Continuing
Government Eng Spt	WR	NAWCAD:PATUXENT RIVER, MD	88.198	4.524	Oct 2011	4.221	Nov 2012	-		4.221	Continuing	Continuing	Continuing
Eng & Tech Spt Srvc (NON-FFRDC)	Various	VARIOUS:VARIOUS	46.853	3.000	Nov 2011	1.397	Nov 2012	-		1.397	Continuing	Continuing	Continuing
Mgt & Prof SptT Srvc (FFRDC)	Various	VARIOUS:VARIOUS	9.747	0.323	Nov 2011	0.250	Nov 2012	-		0.250	Continuing	Continuing	Continuing
Prior Years Mgmt Svcs	Various	VARIOUS:VARIOUS	0.868	-		-		-		-	0.000	0.868	
Subtotal			179.569	11.571		9.488		-		9.488			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	276.829	23.850		19.453		-		19.453			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604261N: <i>Acoustic Search Sensors</i>	PROJECT 0480: <i>ASW Sensors & Proc</i>

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604261N: <i>Acoustic Search Sensors</i>	PROJECT 0480: <i>ASW Sensors & Proc</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604261N: <i>Acoustic Search Sensors</i>	PROJECT 0480: <i>ASW Sensors & Proc</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj: 0480 ASW Sensors & Processors				
Acquisition Milestones: Milestones: Milestone C	2	2012	2	2012
System Development: Hardware Development: Engineering Change Proposal	1	2013	4	2015
System Development: EDM Delivery: Eng Dev Model (H/W EDM) 1	1	2011	2	2011
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	2011	4	2017
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
Test & Evaluation: Technical Evaluation: APB (2) SQT	2	2011	2	2011
Test & Evaluation: Technical Evaluation: APB (3) SQT	2	2014	2	2014

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604261N: Acoustic Search Sensors				PROJECT 3224: High Altitude ASW			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
3224: High Altitude ASW	32.238	24.988	14.846	-	14.846	10.601	9.523	7.629	4.315	Continuing	Continuing
Quantity of RDT&E Articles	0	0	34	0	34	49	48	49	0		
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 throughout the kill chain at higher than traditional ASW altitudes. FY11-FY17 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. GPS integration will provide precise sonobuoy location regardless of aircraft altitude/location to enhance wide area ASW search, localization, track and targeting. 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. The FY13-16 test article quantities reflect 180 sonobuoys.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: Provide precision delivery of sonobuoys								32.238	24.988	14.846	
								0	0	34	
FY 2011 Accomplishments: The Analysis of Alternatives (AoA) confirmed the cost/operational effectiveness of GPS and digital telemetry integration in sonobuoys. Milestone A / Acquisition Strategy were approved. The sonobuoy technology development contract was awarded to ERAPSCO (Aug11). The Boeing Capabilities Analysis and Planning (CAP) study to integrate HAASW into P-8A Increment 2 was also awarded. FY 2012 Plans: Sonobuoy Preliminary Design Review (PDR) is planned for Apr 12. A P-8A Inc 2 Risk Reduction contract will be awarded initiating a P-8A Inc2 (HAASW) CAP study. FY 2013 Plans: Milestone B and CDR are planned. Boeing Increment 2 Integration contract will be awarded.											
Accomplishments/Planned Programs Subtotals								32.238	24.988	14.846	

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604261N: Acoustic Search Sensors				PROJECT 3224: High Altitude ASW			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPN/4048 (1): Sonobuoys - All Types (SSQ-101)	16.795	14.027	12.751	0.000	12.751	23.641	36.123	40.152	42.436	Continuing	Continuing
• OPN/4048 (2): Sonobuoys - All Types (SSQ-62)	15.625	16.069	10.769	0.000	10.769	17.299	17.361	17.929	20.490	Continuing	Continuing
• OPN/4048 (3): Sonobuoys - All Types (SSQ-53)	37.474	37.312	58.033	0.000	58.033	66.744	66.334	62.879	63.908	Continuing	Continuing
D. Acquisition Strategy											
High Altitude Anti-Submarine Warfare Acquisition Strategy Review was held 14 Nov 2011. Contracting approaches for sonobuoy development and for software development were approved. Sonobuoy TD will be awarded via sole source CPIF contract to ERAPSCO. Software development will be awarded via sole source to Boeing.											
E. Performance Metrics											
Schedule and cost variances of the planned contracts will be used to track contract performance. Integrated baseline review is scheduled 6 months after ERAPSCO contract award.											

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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				PE 0604261N: Acoustic Search Sensors				3224: High Altitude ASW					
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	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	-		0.478	Continuing	Continuing	Continuing
Primary Hdw Development	SS/CPIF	ERAPSCO:FT. WAYNE IN	16.986	11.389	Nov 2011	-		-		-	0.000	28.375	28.375
Subtotal			21.995	11.765		0.478		-		0.478			
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	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	-		0.300	Continuing	Continuing	Continuing
Studies & Analysis	Various	VARIOUS:VARIOUS	0.392	-		-		-		-	Continuing	Continuing	Continuing
A/C Software Integration	Various	VARIOUS:VARIOUS	3.119	-		-		-		-	Continuing	Continuing	Continuing
Tech Data	WR	NAWCAD:PATUXENT RIVER, MD	0.100	-		-		-		-	Continuing	Continuing	Continuing
A/C Software Integration	C/CPFF	BOEING:SEATTLE WA	9.000	4.000	Nov 2011	5.590	Dec 2012	-		5.590	Continuing	Continuing	Continuing
Subtotal			13.061	4.500		5.890		-		5.890			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval	Various	VARIOUS:VARIOUS	0.450	0.500	Nov 2011	2.200	Nov 2012	-		2.200	Continuing	Continuing	Continuing
Subtotal			0.450	0.500		2.200		-		2.200			
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Eng Spt	Various	VARIOUS:VARIOUS	1.000	0.946	Oct 2011	0.746	Nov 2012	-		0.746	Continuing	Continuing	Continuing

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Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ENG & TECH SVCS (NON-FFRDC)	Various	VARIOUS:VARIOUS	1.244	2.294	Oct 2011	0.983	Nov 2012	-		0.983	Continuing	Continuing	Continuing
Government Eng Spt	WR	NAWCAD:PATUXENT RIVER, MD	8.209	4.939	Oct 2011	4.511	Nov 2012	-		4.511	Continuing	Continuing	Continuing
Travel	C/T&M	VARIOUS:VARIOUS	0.470	0.044	Oct 2011	0.038	Nov 2012	-		0.038	Continuing	Continuing	Continuing
Subtotal			10.923	8.223		6.278		-		6.278			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	46.429	24.988		14.846		-		14.846			

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604261N: <i>Acoustic Search Sensors</i>	PROJECT 3224: <i>High Altitude ASW</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604261N: <i>Acoustic Search Sensors</i>	PROJECT 3224: <i>High Altitude ASW</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj: 3224 High Altitude ASW				
Acquisition Milestones: Milestones: Milestone A	1	2011	1	2011
Acquisition Milestones: Milestones: Milestone B	1	2013	1	2013
Acquisition Milestones: Milestones: Milestone C	3	2014	3	2014
Acquisition Milestones: Milestones: Full Rate Production	3	2015	3	2015
Acquisition Milestones: Milestones: Initial Operational Capabilities	1	2016	1	2016
System Development: Hardware Development: Hardware System Development	1	2011	3	2013
System Development: Software Development: Aircraft Software Development/ Integration	1	2011	4	2015
System Development: Reviews: PDR	3	2012	3	2012
System Development: Reviews: CDR	1	2013	1	2013
Test & Evaluation: Technical Evaluation: Integrated Testing	1	2012	2	2014
Test & Evaluation: Operational Evaluation: P-8A FOT&E	2	2014	3	2015
Production Milestones: Contract Awards: Risk Reduction Contract Award	1	2012	1	2012
Production Milestones: Contract Awards: Sonobuoy TD Contract Award	4	2011	4	2011
Production Milestones: Contract Awards: P-8 Integration Contract Award	3	2012	3	2012
Production Milestones: Contract Awards: LRIP Award	3	2014	3	2014
Deliveries: Sonobuoy GPS/Digital Uplink Test Article Delivery: Sonobuoy GPS/Digital Uplink Test Article Delivery 1	2	2013	2	2013
Deliveries: Sonobuoy GPS/Digital Uplink Test Article Delivery: Sonobuoy GPS/Digital Uplink Test Article Delivery 2	3	2014	3	2014
Deliveries: Sonobuoy GPS/Digital Uplink Test Article Delivery: Sonobuoy GPS/Digital Uplink Test Article Delivery 3	2	2015	2	2015

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy				DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604261N: Acoustic Search Sensors		PROJECT 3224: High Altitude ASW	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Deliveries: Sonobuoy GPS/Digital Uplink Test Article Delivery: Sonobuoy GPS/Digital Uplink Test Article Delivery 4		3	2016	3	2016
Deliveries: LRIP Delivery: LRIP		4	2014	3	2015