

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603254N: ASW Systems Development							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	38.370	25.553	8.249	0.000	8.249	8.438	8.663	8.900	9.111	Continuing	Continuing
0490: Airborne Acoustic Intelligence (AAI)	3.732	3.547	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	59.118
1292: Adv ASW Sensors & Proc	7.068	10.007	5.739	0.000	5.739	5.933	6.162	6.393	6.602	Continuing	Continuing
3222: Advanced High Altitude ASW	0.000	2.942	2.510	0.000	2.510	2.505	2.501	2.507	2.509	Continuing	Continuing
9177: EPAS	9.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	36.085
9347: Claymore Marine	4.831	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14.337
9999: Congressional Adds	13.364	9.057	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	49.349
A. Mission Description and Budget Item Justification											
Includes RDT&E funds for advanced development and developmental testing of airborne anti-submarine warfare systems, including aircraft, equipment, and devices for use against all types of submarine targets; and advanced, high-performance, underwater, mobile target for use in fleet ASW training exercises and for the operational evaluation of the MK-30 torpedo and the MK-48 torpedo weapons system improvement program; and Project BEARTRAP. Definition of Project BEARTRAP is classified.											
Excludes civilian and military manpower and their related costs and military construction cost which are included in appropriated management and support elements in this program. Project 0490 moved to new Military Intelligence Program (MIP) Program Element (0303354N) in FY 2011 and beyond.											

UNCLASSIFIED

R-1 Line Item #29

Page 1 of 31

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
1319: Research, Development, Test & Evaluation, Navy		PE 0603254N: ASW Systems Development			
BA 4: Advanced Component Development & Prototypes (ACD&P)					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	36.885	16.585	0.000	0.000	0.000
Current President's Budget	38.370	25.553	8.249	0.000	8.249
Total Adjustments	1.485	8.968	8.249	0.000	8.249
• Congressional General Reductions		-0.107			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	-0.020			
• Congressional Adds		9.095			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.510	0.000			
• Program Adjustments	0.000	0.000	8.249	0.000	8.249
• Congressional Recision Adjustments	-0.005	0.000	0.000	0.000	0.000
• Congressional Add Adjustments	2.000	0.000	0.000	0.000	0.000
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 9999: Congressional Adds					
Congressional Add: Air Readiness/Effectiveness Measurement Program	0.000	1.593			
Congressional Add: Marine Mammal Detection System	0.000	1.992			
Congressional Add: Marine Species Mitigation	0.000	2.285			
Congressional Add: TACTICAL E FIELD BUOY DEVELOPMENT PROGRAM	1.596	0.000			
Congressional Add: MARINE MAMMAL ALERT SYSTEM	2.393	2.390			
Congressional Add: In Buoy Processor for TASS	1.995	0.000			
Congressional Add: Sonobouy Wave-Energy Module	2.992	0.797			
Congressional Add: Holographic Optical Filter for Light Detection and	1.995	0.000			
Congressional Add: Low Cost Multi-channel Camera System	2.393	0.000			

UNCLASSIFIED

R-1 Line Item #29

Page 2 of 31

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy		DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2009	FY 2010
Congressional Add Subtotals for Project: 9999		13.364	9.057
Congressional Add Totals for all Projects		13.364	9.057
<u>Change Summary Explanation</u> Technical: 0490. Defined Active Measurement Validation as a separate cost category for improved programmatic tracking. Active Measurement Validation is an output product of the Active Target Strength (T.S.) project. Schedule: 1292. Program Growth reduction in 1Q/09, shortened the Multi-Static Target Recognition Performance Assessment from 1Q/09 thru 4Q/10 to 1Q/10 thru 4Q/10. PB-10 budget submission reflected 1Q/10 Experiment/Exercise participation start vice actual 1Q/09 start. FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.			

UNCLASSIFIED

R-1 Line Item #29

Page 3 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 0490: <i>Airborne Acoustic Intelligence (AAI)</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
0490: <i>Airborne Acoustic Intelligence (AAI)</i>	3.732	3.547	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	59.118
Quantity of RDT&E Articles	2	2	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>The mission of Airborne Acoustic Intelligence (AAI) (CNO Project K-0416) is to provide SPL quality recordings of targets of interest and an associated new technology, rapid prototyping mechanism for the application of state-of-the-art collection sensors. The program will develop and rapidly deploy new technology concepts in hardware and software to effectively address emerging littoral threats and to improve the present Undersea Warfare capability in support of Sea Shield/Sea Trial Initiatives. AAI also provides a measurement analysis capability to reconstruct, analyze and develop active target strength measurement validation. The AAI data collection program provides passive and active acoustic and non-acoustic data essential for the design and development of environmental models, sensors, weapons, software algorithms, and tactical decision aids. AAI employs developmental and prototypical hardware installed in uniquely configured ASW aircraft to collect data of interest, and specially configured ground support facilities to conduct reconstruction and analysis of this data. AAI includes calibrated recording systems, advanced detection and tracking systems, special sensors, advanced processing systems and techniques and specially derived operational tactics. The 4 RDT&E articles consist of aircraft calibration units, Sound Pressure Level (SPL) collection suites, and post mission processors that will support the collection mission.</p> <p>Military Intelligence Program (MIP) funding previously contained in this PE and Project, moved to a new Program Element (0303354N) in FY 2011 and beyond for enhanced MIP tracking.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Systems Engineering / Aircraft Mods Active Acoustic Program						2.582	2.397	0.000	0.000	0.000	
<i>FY 2009 Accomplishments:</i> Continued engineering to support SPL Recording. Continued post mission processor upgrade and engineering to support aircraft calibration unit enhancements for active target strength. Engineering											

UNCLASSIFIED

R-1 Line Item #29

Page 4 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603254N: ASW Systems Development		PROJECT 0490: Airborne Acoustic Intelligence (AAI)		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
development of Target Strength processing will continue, however, the prototype processor is on hold due to funding reprioritization. FY 2010 Plans: Engineering to support SPL Recording. Post mission processor upgrade and engineering to support aircraft calibration unit enhancements for active target strength. Engineering development of Target Strength processing will continue, however, the prototype processor is on hold due to funding reprioritization.						
Data Collection and Analysis FY 2009 Accomplishments: Continued data collection support at Operational Wings. Ongoing collection of high interest acoustic and non-acoustic data in support of Measurement/Measuring and Signature Intelligence (MASINT)/Office of Naval Intelligence (ONI) threat assessment requirements. Reduction, Analysis and Fleet Rapid Feedback. Conducted airborne special operations support. Essential performance modeling and evaluation for advanced technology sensor systems design and Fleet tactics development. FY 2010 Plans: Data collection support at Operational Wings. Ongoing collection of high interest acoustic and non-acoustic data in support of Measurement/Measuring and Signature Intelligence (MASINT)/Office of Naval Intelligence (ONI) threat assessment requirements. Reduction, Analysis and Fleet Rapid Feedback. Conduct airborne special operations support. Essential performance modeling and evaluation for advanced technology sensor systems design and Fleet tactics development.		0.750	0.750	0.000	0.000	0.000
Active Measurement Validation		0.400	0.400	0.000	0.000	0.000

UNCLASSIFIED

R-1 Line Item #29

Page 5 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>		PROJECT 0490: <i>Airborne Acoustic Intelligence (AAI)</i>	
B. Accomplishments/Planned Program (\$ in Millions)					
				FY 2009	FY 2010
				FY 2011 Base	FY 2011 OCO
				FY 2011 Total	
<i>FY 2009 Accomplishments:</i> Continued Active Measurement Validation of targets of interest. Provided the acoustic analysis of echo characterization (which includes: signal excess (SE) measurements, peak frequency (PF), trend analysis and pulse duration measurements) and target strength.					
<i>FY 2010 Plans:</i> Active Measurement Validation of targets of interest. Provides the acoustic analysis of echo characterization (which includes: signal excess (SE) measurements, peak frequency (PF), trend analysis and pulse duration measurements) and target strength.					
Accomplishments/Planned Programs Subtotals				3.732	3.547
				0.000	0.000
				0.000	0.000
C. Other Program Funding Summary (\$ in Millions)					
N/A					
D. Acquisition Strategy					
Airborne Acoustic Intelligence (AAI) is a CNO Special Project. The included technology developments are primarily in-house with contractor participation through existing vehicles.					
E. Performance Metrics					
Continued engineering to support SPL recording. Continued data collection support at Operation Wings. Continued Active Measurement Validation of targets of interest.					

UNCLASSIFIED

R-1 Line Item #29

Page 6 of 31

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603254N: ASW Systems Development					PROJECT 0490: Airborne Acoustic Intelligence (AAI)				
Product Development (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
Active Measurement Validation	WR	NAWCAD PATUXENT RIVER, MD	0.400	0.400	Oct 2009	0.000		0.000		0.000	0.000	0.800	Continuing	
Ancillary Hdw Development	WR	NAWCAD PATUXENT RIVER, MD	4.819	0.750	Oct 2009	0.000		0.000		0.000	0.000	5.569	Continuing	
Systems Eng	WR	NAWCAD PATUXENT RIVER, MD	70.072	2.397	Oct 2009	0.000		0.000		0.000	0.000	72.469	Continuing	
Subtotal			75.291	3.547		0.000		0.000		0.000	0.000	78.838		
Remarks Military Intelligence Program (MIP) funding previously contained in this PE and Project, moved to a new Program Element (0303354N) for enhanced MIP tracking.														
Management Services (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
Travel	TM	NAVAIR PATUXENT RIVER, MD	0.095	0.000		0.000		0.000		0.000	0.000	0.095	Continuing	
MGT & PROF SPT SVCS (NON-FFRDC)	Various/ Various	VARIOUS VARIOUS	0.898	0.000		0.000		0.000		0.000	0.000	0.898	0.898	

UNCLASSIFIED

R-1 Line Item #29

Page 7 of 31

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603254N: ASW Systems Development				PROJECT 0490: Airborne Acoustic Intelligence (AAI)					
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Subtotal			0.993	0.000		0.000		0.000		0.000	0.000	0.993	0.898
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			76.284	3.547		0.000		0.000		0.000	0.000	79.831	0.898
Remarks													

UNCLASSIFIED

R-1 Line Item #29

Page 8 of 31

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy																							DATE: February 2010						
APPROPRIATION/BUDGET ACTIVITY										R-1 ITEM NOMENCLATURE										PROJECT									
1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)										PE 0603254N: ASW Systems Development										0490: Airborne Acoustic Intelligence (AAI)									
Fiscal Year		2009				2010				2011				2012				2013				2014				2015			
		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																													
Systems Engineering P-3 Avionics Suite									1																				
Tactical Acoustic Processor (TAPS)			1																										
T.S. Processor Development/Prototype			1						1																				
Test & Evaluation Milestones																													
Production Milestones																													
Product Development																													
Data Collection/Analysis																													
Deliveries																													
P-3 Avionics									1																				
Tactical Acoustic Processor			1																										
T.S. Processor				1					1																				

Note: Military Intelligence Program (MIP) funding previously contained in this PE and Project, moved to a new Program Element (0303354N) for enhanced MIP tracking.

Note: Military Intelligence Program (MIP) funding previously contained in this PE and Project, moved to a new Program Element (0303354N) for enhanced MIP tracking.

UNCLASSIFIED

R-1 Line Item #29

Page 9 of 31

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>	PROJECT 0490: <i>Airborne Acoustic Intelligence (AAI)</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Sys Eng Tactical Acoustic Processor (TAPS)	1	2009	4	2010
Target Strength Processor Dev't/Prototype	1	2009	4	2010
Data Collection and Analysis	1	2009	4	2010
Deliveries	2	2009	3	2010
Sys Eng Avionics Suite	1	2010	4	2010

UNCLASSIFIED

UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 1292: <i>Adv ASW Sensors & Proc</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1292: <i>Adv ASW Sensors & Proc</i>	7.068	10.007	5.739	0.000	5.739	5.933	6.162	6.393	6.602	Continuing	Continuing
Quantity of RDT&E Articles	100	300	100	0	100	0	0	0	0		
A. Mission Description and Budget Item Justification <p>This program provides Anti-Submarine Warfare (ASW) platform effectiveness through development of advanced hardware and software associated with airborne acoustic and non-acoustic systems. This includes sensors, processing, post-processing, data recording and display capabilities to address regional threat scenarios against surfaced or submerged conventionally and nuclear powered submarines. Key objectives are platform accommodations of advanced active and passive sensors, improved detection, classification, localization, tracking, and increased capacity and flexibility to handle multi-sensor data loads. Programs being funded during the FYDP will investigate technologies such as: Over the Horizon (OTH) Communications, Distributed Netted Sensors, transient signals, and source and receiver improvement technologies that will enhance passive and Multi-static Active Sensor Systems capabilities. Other programs being funded during the FYDP will provide for the development of persistent tactical search technologies that will allow transition to the localization and attack phase in all operationally relevant environments. In addition, the program will provide for the development and subsequent experimentation, including data collection and engineering measurement, of Multi-static Active Coherent (MAC) sources and receivers, laser technologies, electro-optical and Multi-Spectral camera technologies, Radar, and Magnetic Anomaly Detection sensors. The test articles, which consist of passive/active sensors and associated processors, will support at-sea trials and experiments.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
System performance assessments						7.068	10.007	5.739	0.000	5.739	
<i>FY 2009 Accomplishments:</i> Continued system performance assessments for Multi-Static Active (Coherent) ASW algorithms and other Acoustic and Non-Acoustic system enhancements. The test articles, which consist of passive/active sensors and associated processors, supported at-sea trial and experiments.											

UNCLASSIFIED

R-1 Line Item #29

Page 11 of 31

UNCLASSIFIED

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p><i>FY 2010 Plans:</i> System performance assessments for Multi-Static Active (Coherent) ASW algorithms and other Acoustic and Non-Acoustic system enhancements. The test articles, which consist of passive/active sensors and associated processors, will support at-sea trial and experiments.</p> <p><i>FY 2011 Base Plans:</i> System performance assessments for Multi-Static Active (Coherent) ASW algorithms and other Acoustic and Non-Acoustic system enhancements. The test articles, which consist of passive/active sensors and associated processors, will support at-sea trial and experiments.</p>						
Accomplishments/Planned Programs Subtotals		7.068	10.007	5.739	0.000	5.739
C. Other Program Funding Summary (\$ in Millions) N/A						
D. Acquisition Strategy The included technology development are primarily in-house with contractor participation through existing vehicles.						
E. Performance Metrics Perform system assessments for MAC ASW algorithms and other Acoustic and Non-Acoustic system enhancements.						

UNCLASSIFIED

R-1 Line Item #29

Page 12 of 31

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010																																																																								
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Product Development (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method & Type</th> <th>Performing Activity & Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>Primary Hdw Development</td> <td>Various/ Various</td> <td>VARIOUS VARIOUS</td> <td align="right">0.216</td> <td align="right">0.300</td> <td align="center">Nov 2009</td> <td align="right">0.400</td> <td align="center">Nov 2010</td> <td align="right">0.000</td> <td></td> <td align="right">0.400</td> <td align="right">1.350</td> <td align="right">2.266</td> <td align="right">2.266</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">0.216</td> <td align="right">0.300</td> <td></td> <td align="right">0.400</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.400</td> <td align="right">1.350</td> <td align="right">2.266</td> <td align="right">2.266</td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 VARIOUS	0.216	0.300	Nov 2009	0.400	Nov 2010	0.000		0.400	1.350	2.266	2.266	Subtotal			0.216	0.300		0.400		0.000		0.400	1.350	2.266	2.266														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 VARIOUS	0.216	0.300	Nov 2009	0.400	Nov 2010	0.000		0.400	1.350	2.266	2.266																																																																						
Subtotal			0.216	0.300		0.400		0.000		0.400	1.350	2.266	2.266																																																																						
Remarks																																																																																			
Support (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method & Type</th> <th>Performing Activity & Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>Software Development</td> <td>WR</td> <td>NAWCAD PATUXENT RIVER, MD</td> <td align="right">1.000</td> <td align="right">2.425</td> <td align="center">Nov 2009</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">3.425</td> <td align="center">Continuing</td> </tr> <tr> <td>Studies & Analysis</td> <td>WR</td> <td>NAWCAD PATUXENT RIVER, MD</td> <td align="right">0.500</td> <td align="right">4.681</td> <td align="center">Nov 2009</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="right">6.525</td> <td align="right">11.706</td> <td align="center">Continuing</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">1.500</td> <td align="right">7.106</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="right">6.525</td> <td align="right">15.131</td> <td></td> </tr> </table>																		FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	1.000	2.425	Nov 2009	0.000		0.000		0.000	0.000	3.425	Continuing	Studies & Analysis	WR	NAWCAD PATUXENT RIVER, MD	0.500	4.681	Nov 2009	0.000		0.000		0.000	6.525	11.706	Continuing	Subtotal			1.500	7.106		0.000		0.000		0.000	6.525	15.131	
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	1.000	2.425	Nov 2009	0.000		0.000		0.000	0.000	3.425	Continuing																																																																						
Studies & Analysis	WR	NAWCAD PATUXENT RIVER, MD	0.500	4.681	Nov 2009	0.000		0.000		0.000	6.525	11.706	Continuing																																																																						
Subtotal			1.500	7.106		0.000		0.000		0.000	6.525	15.131																																																																							
Remarks																																																																																			

UNCLASSIFIED

R-1 Line Item #29

Page 13 of 31

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603254N: ASW Systems Development					PROJECT 1292: Adv ASW Sensors & Proc				
Test and Evaluation (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 VARIOUS	14.431	0.500	Nov 2009	0.750	Nov 2010	0.000		0.750	0.000	15.681	15.681	
Subtotal			14.431	0.500		0.750		0.000		0.750	0.000	15.681	15.681	
Remarks														
Management Services (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 VARIOUS	10.930	0.000		3.308	Nov 2010	0.000		3.308	10.488	24.726	24.726	
ENG & TECH SVCS (NON-FFRDC)	Various/ Various	VARIOUS VARIOUS	2.272	0.310	Nov 2009	0.100	Nov 2010	0.000		0.100	1.316	3.998	3.998	
MGT & PROF SVCS (FFRDC)	Various/ Various	VARIOUS VARIOUS	0.210	0.000		0.214	Nov 2010	0.000		0.214	0.800	1.224	1.224	
Government Eng Spt	WR	NAWCAD PATUXENT RIVER, MD	53.349	1.711	Nov 2009	0.892	Nov 2010	0.000		0.892	4.286	60.238	Continuing	
Travel	TM	VARIOUS VARIOUS	0.165	0.080	Nov 2009	0.075	Nov 2010	0.000		0.075	0.325	0.645	Continuing	
Subtotal			66.926	2.101		4.589		0.000		4.589	17.215	90.831	29.948	

UNCLASSIFIED

R-1 Line Item #29

Page 14 of 31

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 1292: <i>Adv ASW Sensors & Proc</i>					
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
<u>Remarks</u>													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			83.073	10.007		5.739		0.000		5.739	25.090	123.909	47.895
<u>Remarks</u>													

UNCLASSIFIED

R-1 Line Item #29

Page 15 of 31

UNCLASSIFIED

DATE: February 2010

PROJECT

1292: *Adv ASW Sensors & Proc*

Fiscal Year		2009				2010				2011				2012				2013				2014				2015				
		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																														
Performance Assessment			Multi-Static Target Recognition				Concurrent Processing/Battery Technology				Distributed Netted Sensors																			
		OTH Communications								Engineering Measurement																				
Transition Decision									△	Multi-Static Target Recognition			△	OTH Communications			△	Concurrent Processing/Battery Technology				△	Distributed Netted Sensors							
Software	S/W Development																													
Experiment/Exercise Participation																														
Deliveries		▲				▲				△				△				△				△				△				
		100				300				100				100				100				100				100				

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>	PROJECT 1292: <i>Adv ASW Sensors & Proc</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Performance Assessment Multi-Static Target Recognition	1	2010	4	2010
Performance Assessment Concurrent Processing/Battery Technology	1	2011	4	2012
Performance Assessment Distributed Netted Sensors	1	2013	4	2014
Performance Assessment OTH Communications	1	2009	4	2011
Performance Assessment Engineering Measurement	1	2012	4	2015
Transition Decision Multi-Static Target Recognition	4	2010	4	2010
Transition Decision OTH Communications	4	2011	4	2011
Transition Decision Concurrent Processing/Battery Technology	4	2012	4	2012
Transition Decision Distributed Netted Sensors	4	2014	4	2014
Software Development	1	2009	4	2015
Experiment/Exercise Participation	1	2009	4	2015
Deliveries	1	2009	1	2015

UNCLASSIFIED

R-1 Line Item #29

Page 17 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 3222: <i>Advanced High Altitude ASW</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
3222: <i>Advanced High Altitude ASW</i>	0.000	2.942	2.510	0.000	2.510	2.505	2.501	2.507	2.509	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification The objective of this project is to develop the capability for precision standoff delivery of sonobuoys from high altitude in order to improve tactical flexibility and mission performance of P-8A aircraft. Current NAVAIR Small Business Innovative Research (SBIR) companies are exploring promising technologies and are assessing the feasibility and practicality of proposed solutions for the precision placement of sonobuoys. This program will leverage SBIR technology to refine system concepts and to conduct field experiments and tests to evaluate technology solutions and assess their performance, cost, and producibility. The 200 R&D test articles will be used for concept demonstration. Pending successful demonstration of precision placement technology, design modifications to current sonobuoy sensors will be matured and prototyped for qualification and testing leading to transition into P-8A.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Provide precision delivery of sonobuoys <i>FY 2010 Plans:</i> This effort supports improvement in AIR ASW capability by providing for precision delivery of sonobuoys from P-8A Aircraft at high altitude. Various concepts will be analyzed. Prototype methods of sonobuoy delivery will be explored in order to achieve accurate placement from high altitudes. Technology Readiness Level will be improved to support planning for transition to acquisition. <i>FY 2011 Base Plans:</i> This effort supports improvement in AIR ASW capability by providing for precision delivery of sonobuoys from P-8A Aircraft at high altitude. Various concepts will be analyzed. Prototype methods							0.000	2.942	2.510	0.000	2.510

UNCLASSIFIED

R-1 Line Item #29

Page 18 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>		PROJECT 3222: <i>Advanced High Altitude ASW</i>	
B. Accomplishments/Planned Program (\$ in Millions)					
				FY 2009	FY 2010
				FY 2011 Base	FY 2011 OCO
				FY 2011 Total	
of sonobuoy delivery will be explored in order to achieve accurate placement from high altitudes. Technology Readiness Level will be improved to support planning for transition to acquisition.					
Accomplishments/Planned Programs Subtotals				0.000	2.942
				2.510	0.000
				2.510	
C. Other Program Funding Summary (\$ in Millions) N/A					
D. Acquisition Strategy Various sole source and/or competitive R&D contracts to develop precision placement technologies for sonobuoys. Develop modifications to incorporate capability into current sonobuoy sensors and integration into P-8A as the lead aircraft.					
E. Performance Metrics Demonstrate prototype precision delivery of sonobuoys from P-8A aircraft at high altitude.					

UNCLASSIFIED

R-1 Line Item #29

Page 19 of 31

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 3222: <i>Advanced High Altitude ASW</i>					
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 VARIOUS	0.000	0.000		1.370	Feb 2011	0.000		1.370	3.956	5.326	5.326
A/C HW/SW Integration	Various/ Various	VARIOUS VARIOUS	0.000	0.000		0.000		0.000		0.000	0.600	0.600	0.600
Subtotal			0.000	0.000		1.370		0.000		1.370	4.556	5.926	5.926
Remarks													
Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 VARIOUS	0.000	0.000		0.000		0.000		0.000	0.500	0.500	0.500
Studies & Analysis	WR	NAWCAD PATUXENT RIVER, MD	0.000	0.700	Jan 2010	0.150	Nov 2010	0.000		0.150	0.100	0.950	Continuing
Studies & Analysis	Various/ Various	VARIOUS VARIOUS	0.000	1.200	Jan 2010	0.300	Nov 2010	0.000		0.300	0.300	1.800	1.800
Subtotal			0.000	1.900		0.450		0.000		0.450	0.900	3.250	2.300
Remarks													

UNCLASSIFIED

R-1 Line Item #29

Page 20 of 31

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 ITEM NOMENCLATURE PE 0603254N: ASW Systems Development				PROJECT 3222: Advanced High Altitude ASW					
Test and Evaluation (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	
Field Tests	WR	NAWCAD PATUXENT RIVER, MD	0.000	0.000		0.050	Aug 2011	0.000		0.050	0.150	0.200	Continuing	
Field Tests	Various/ Various	VARIOUS VARIOUS	0.000	0.000		0.000		0.000		0.000	0.500	0.500	0.500	
Subtotal			0.000	0.000		0.050		0.000		0.050	0.650	0.700	0.500	
Remarks														
Management Services (\$ in Millions)														
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 VARIOUS	0.000	0.150	Jan 2010	0.050	Nov 2010	0.000		0.050	0.550	0.750	0.750	
ENG & TECH SVCS (NON-FFRDC)	Various/ Various	VARIOUS VARIOUS	0.000	0.150	Jan 2010	0.080	Nov 2010	0.000		0.080	0.421	0.651	0.651	
Government Eng Spt	WR	NAWCAD PATUXENT RIVER, MD	0.000	0.727	Jan 2010	0.500	Nov 2010	0.000		0.500	2.900	4.127	Continuing	
Travel	TM	VARIOUS VARIOUS	0.000	0.015	Jan 2010	0.010	Nov 2010	0.000		0.010	0.045	0.070	Continuing	
Subtotal			0.000	1.042		0.640		0.000		0.640	3.916	5.598	1.401	

UNCLASSIFIED

R-1 Line Item #29

Page 21 of 31

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 3222: <i>Advanced High Altitude ASW</i>					
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	2.942		2.510		0.000		2.510	10.022	15.474	10.127
Remarks													

UNCLASSIFIED

R-1 Line Item #29

Page 22 of 31

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy																								DATE: February 2010													
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)										R-1 ITEM NOMENCLATURE PE 0603254N: ASW Systems Development										PROJECT 3222: Advanced High Altitude ASW																	
Fiscal Year		2009				2010				2011				2012				2013				2014				2015											
		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						Precision Placement of Sonobuoys for HAASW is a Technology Development, Non ACAT project.																															
Contract Awards						△					△																										
Trade Studies						Study and analyze concept options																															
										△	Choose System Concepts for Technology Demonstrations																										
HW/SW Product Development														Draft performance requirements/specifications Develop enabling technologies for precision placement Conduct component testing Build advanced development models (ADM) for Tech Demo																							
Experimentation & Tech Demos																		Experimentation and Technology Demos Field Tests																			
Transition Decisions																			Plan for Precision Placement modification to sonobuoys Prepare sonobuoy specification modifications										△								
																			Plan for Precision Placement modifications into P-8A										△								
Deliveries																	△					△					△										
																	50					50					100										

UNCLASSIFIED

R-1 Line Item #29

Page 23 of 31

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>	PROJECT 3222: <i>Advanced High Altitude ASW</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Study Contracts	1	2010	1	2010
Technology Development Contracts	2	2011	2	2011
Trade Studies	1	2010	1	2013
Technology Demonstration Contract	1	2011	1	2011
HW/SW Product Development	2	2011	4	2015
Experimentation and Tech Demo	4	2011	1	2015
Transition Decisions	3	2015	3	2015
Transition Decisions (Plan for Precision Placement modifications into P-8A)	3	2015	3	2015
Deliveries	4	2012	4	2014

UNCLASSIFIED

R-1 Line Item #29

Page 24 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 9177: <i>EPAS</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9177: <i>EPAS</i>	9.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	36.085
Quantity of RDT&E Articles	2	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>The objective of this program was to 1) demonstrate the concept that an integrated suite of non-acoustic sensors will provide an effective real time, day and night air ASW detection, localization and tracking capability in acoustically challenging shallow regions and deep water areas of uncertainty (AOU); 2) develop and demonstrate a cross platform non-acoustic system for fixed wing, helicopter, aerostat, and unmanned aerial vehicle ASW platforms. Navy funding for FY09 supports the development, integration, and demonstration testing of four (4) second generation prototype Electro-Optic Passive ASW Sensor (EPAS) systems (EPAS/Joint Multi-Mission Electro-optic System (JMMES)) with algorithm based integrated sensor operation and ASW automatic target recognition/operator cueing software modules. The EPAS technology and ASW mission module software has been leveraged to develop multi-mission capability for other targets of Naval interest including maritime and overland surface warfare, maritime interdiction operations, mine counter measures.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Completed Dev/Demo of EPAS turret <i>FY 2009 Accomplishments:</i> Supported improvement in AIR ASW capability and Naval Multi-Mission Electro-Optic intelligence, surveillance and reconnaissance capability. This effort included building and testing EPAS turret systems.						9.375	0.000	0.000	0.000	0.000	
<p align="right">Accomplishments/Planned Programs Subtotals</p>						9.375	0.000	0.000	0.000	0.000	0.000

UNCLASSIFIED

R-1 Line Item #29

Page 25 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy										DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 9177: <i>EPAS</i>			
<u>C. Other Program Funding Summary (\$ in Millions)</u>											
			<u>FY 2011</u>	<u>FY 2011</u>	<u>FY 2011</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Complete</u>	<u>Total Cost</u>
• 0603648D8Z: <i>JCTD</i>	4.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.000
<u>D. Acquisition Strategy</u> Sole source modification to the existing contract with BAE to add Navy funded system. Issued new sole source contract for EPAS/JMMES development and demonstration.											
<u>E. Performance Metrics</u> Build and test EPAS turret systems.											

UNCLASSIFIED

R-1 Line Item #29

Page 26 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 9347: <i>Claymore Marine</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9347: <i>Claymore Marine</i>	4.831	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14.337
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification Funding for FY09 supports development of one blue laser brassboard Laser Identification Detection And Ranging (LIDAR) ASW system for data collections and data reductions to validate phenomena of the environmental detection concept for Claymore Marine signatures.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Developed blue laser brassboard LIDAR ASW system <i>FY 2009 Accomplishments:</i> Developed blue laser brassboard LIDAR ASW system.							4.831	0.000	0.000	0.000	0.000
Accomplishments/Planned Programs Subtotals							4.831	0.000	0.000	0.000	0.000
C. Other Program Funding Summary (\$ in Millions) N/A											
D. Acquisition Strategy NAWC is the prime system integrator. JF Taylor, Inc. has been contracted to develop the real time processor. BAE, NH has developed and implemented the data collection system. Johns Hopkins APL is developing the detection algorithm that will be supported on the real time processor system. All three contractors are working under NAWC direction as the prime system integrator.											
E. Performance Metrics Develop blue laser brassboard LIDAR ASW system.											

UNCLASSIFIED

R-1 Line Item #29

Page 27 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>				PROJECT 9999: <i>Congressional Adds</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	13.364	9.057	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	49.349
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification 9999. Congressional Adds.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010			
Congressional Add: Air Readiness/Effectiveness Measurement Program <i>FY 2010 Plans:</i> Conduct an Air Readiness/Effectiveness Measurement (AIREM) effort, enabling platforms to more effectively counter the current submarine threat.							0.000	1.593			
Congressional Add: Marine Mammal Detection System <i>FY 2010 Plans:</i> Develop aircraft Intelligence, Surveillance, and Reconnaissance (ISR) systems and acoustics optimized for detecting and tracking marine mammals.							0.000	1.992			
Congressional Add: Marine Species Mitigation <i>FY 2010 Plans:</i> Deploy acoustic arrays in the pending Shallow Water Test Range planned for construction off the Atlantic coast of Florida.							0.000	2.285			

UNCLASSIFIED

R-1 Line Item #29

Page 28 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>	PROJECT 9999: <i>Congressional Adds</i>
B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
Congressional Add: TACTICAL E FIELD BUOY DEVELOPMENT PROGRAM <i>FY 2009 Accomplishments:</i> Tactical E-Field Buoy Development. Continued development and testing of an air deployable tactical electric field buoy system to detect the electric field (E-Field) signal produced by a submarine.	1.596	0.000
Congressional Add: MARINE MAMMAL ALERT SYSTEM <i>FY 2009 Accomplishments:</i> Marine Mammal Awareness & Alert Response System (MMAARS). Supported concept development for demonstration of systems to link airborne sensor data with databases to help predict low risk zones for Airborne ASW testing and training. <i>FY 2010 Plans:</i> Marine Mammal Awareness & Alert Response System (MMAARS). Continue supporting concept development for demonstration of systems to link airborne sensor data with databases to help predict low risk zones for Airborne ASW testing and training.	2.393	2.390
Congressional Add: In Buoy Processor for TASS <i>FY 2009 Accomplishments:</i> Trigger and Alert Sonobuoy. Supported the development of an in-buoy processor that implements an autonomous trigger and alert sonobuoy system.	1.995	0.000
Congressional Add: Sonobouy Wave-Energy Module	2.992	0.797

UNCLASSIFIED

R-1 Line Item #29

Page 29 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>	PROJECT 9999: <i>Congressional Adds</i>
B. Accomplishments/Planned Program (\$ in Millions)		
	FY 2009	FY 2010
<i>FY 2009 Accomplishments:</i> Sonobuoy Wave-Energy Module. Supported development of a wave-energy module to harvest energy from ocean waves to replace or supplement sonobuoy batteries to extend the life of ocean sensing sonobuoy systems. <i>FY 2010 Plans:</i> Sonobuoy Wave-Energy Module. Continue supporting the development of a wave-energy module to harvest energy from ocean waves to replace or supplement sonobuoy batteries to extend the life of ocean sensing sonobuoy systems.		
Congressional Add: Holographic Optical Filter for Light Detection and <i>FY 2009 Accomplishments:</i> Holographic Optical Filter for Light Detection and Ranging. Supported development of optical filter technology to block out interfering sunlight in order to enable daytime operation of LIDAR sensor systems and enhance ASW performance.	1.995	0.000
Congressional Add: Low Cost Multi-channel Camera System <i>FY 2009 Accomplishments:</i> Low Cost Multi-Channel Camera System. Supported maturation of the Mission Adaptable Narrowband Tunable Imaging Sensor (MANTIS) to achieve a lighter and smaller Multi-channel Camera System (MCS) for greater utility on smaller airborne platforms such as UAV's.	2.393	0.000
Congressional Adds Subtotals	13.364	9.057

UNCLASSIFIED

R-1 Line Item #29

Page 30 of 31

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603254N: <i>ASW Systems Development</i>	PROJECT 9999: <i>Congressional Adds</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
D. Acquisition Strategy Not required for Congressional Adds.		
E. Performance Metrics Congressional Adds.		

UNCLASSIFIED

R-1 Line Item #29

Page 31 of 31