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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 0303354N: ASW Systems Development - MIP							
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	0.000	0.000	2.161	0.000	2.161	1.172	1.285	1.338	1.387	Continuing	Continuing
0490: Airborne Acoustic Intelligence (AAI)	0.000	0.000	2.161	0.000	2.161	1.172	1.285	1.338	1.387	Continuing	Continuing
A. Mission Description and Budget Item Justification In January 2008, OPNAV renamed project unit 0490 from Project Beartrap to Airborne Acoustic Intelligence (AAI). The mission of AAI (CNO Project K-0416) is to provide Sound Pressure Level (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 and 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. Funding was moved in FY11 thru FY15 from PE 0603254N to this new PE 0303354N and is a Military Intelligence Program.											

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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 0303354N: ASW Systems Development - MIP			
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	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	2.161	0.000	2.161
Total Adjustments	0.000	0.000	2.161	0.000	2.161
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Program Adjustments	0.000	0.000	2.161	0.000	2.161
Change Summary Explanation					
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: Not applicable.					
FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.					

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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 0303354N: <i>ASW Systems Development - MIP</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>	0.000	0.000	2.161	0.000	2.161	1.172	1.285	1.338	1.387	Continuing	Continuing
Quantity of RDT&E Articles	0	0	1	0	1	0	0	0	0		

A. Mission Description and Budget Item Justification

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 1 RDT&E article consist of a Sound Pressure Level (SPL) collection suite.

Funding was moved in FY11 thru FY15 from PE 0603254N to this new PE 0303354N and is considered a Military Intelligence Program.

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 <i>FY 2011 Base Plans:</i> 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 continues.	0.000	0.000	1.011	0.000	1.011
Data Collection and Analysis	0.000	0.000	0.750	0.000	0.750

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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 0303354N: <i>ASW Systems Development - MIP</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 2011 Base Plans:</i> 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.											
Active Measurement Validation <i>FY 2011 Base 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.	0.000	0.000	0.400	0.000	0.400						
Accomplishments/Planned Programs Subtotals	0.000	0.000	2.161	0.000	2.161						
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PE/LI: <i>Enter Other Funding Description.</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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											
MIP Program.											

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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 0303354N: <i>ASW Systems Development - MIP</i>				PROJECT 0490: <i>Airborne Acoustic Intelligence (AAI)</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
Active Measurement Validation	WR	NAWCAD PATUXENT RIVER, MD	0.000	0.000		0.400	Oct 2010	0.000		0.400	0.000	0.400	Continuing
Ancillary Hdw Development	WR	NAWCAD PATUXENT RIVER, MD	0.000	0.000		0.750	Oct 2010	0.000		0.750	1.752	2.502	Continuing
Systems Eng	WR	NAWCAD PATUXENT RIVER, MD	0.000	0.000		0.111	Oct 2010	0.000		0.111	4.427	4.538	Continuing
Subtotal			0.000	0.000		1.261		0.000		1.261	6.179	7.440	

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
MGT & PROF SPT SVCS (NON-FFRDC)	Various/ Various	VARIOUS VARIOUS	0.000	0.000		0.900	Dec 2010	0.000		0.900	3.600	4.500	4.500
Subtotal			0.000	0.000		0.900		0.000		0.900	3.600	4.500	4.500

Remarks

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy							DATE: February 2010				
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	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	0.000		2.161		0.000		2.161	9.779	11.940	4.500
Remarks											

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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										PE 0303354N: ASW Systems Development - MIP										0490: Airborne Acoustic Intelligence (AAI)												
BA 4: Advanced Component Development & Prototypes (ACD&P)																																
Fiscal Year						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			
Acquisition Milestones																																
Systems Engineering P-3 Avionics Suite										△		1				1				1												
Tactical Acoustic Processor (TAPS)										△																						
T.S. Processor Development/Prototype										△						1				1				1					1			
Test & Evaluation Milestones																																
Production Milestones																																
Product Development																																
Data Collection/Analysis																																
Deliveries																																
P-3 Avionics												1				1				1												
T.S. Processor																1				1				1				1			1	

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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 0303354N: <i>ASW Systems Development - MIP</i>	PROJECT 0490: <i>Airborne Acoustic Intelligence (AAI)</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Sys Eng Avionics Suite	1	2011	4	2015
Sys Eng Tactical Acoustic Processor (TAPS)	1	2011	4	2015
Target Strength Processor Dev't/Prototype	1	2011	4	2015
Data Collection and Analysis	1	2011	4	2015
Deliveries	3	2011	3	2015

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