Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy											Date: February 2015	
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0303354N *I ASW Systems Development - MIP*							
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	15.305	4.908	6.495	9.835	-	9.835	9.535	8.364	9.056	9.169	Continuing	Continuing
0490: *Airborne Acoustic Intelligence (AAI)*	15.305	4.908	6.495	9.835	-	9.835	9.535	8.364	9.056	9.169	Continuing	Continuing

A. Mission Description and Budget Item Justification

The mission of Airborne Acoustic Intelligence (AAI) (CNO Project K-0416) is to provide advanced antisubmarine warfare capabilities through rapid development of new technology and prototype mechanisms for the collection of antisubmarine warfare (ASW) related intelligence. This includes full spectrum intelligence collections and cataloging of current targets of interest. The program develops and swiftly deploys disruptive innovation to counter emerging threats in order to maintain the United States' current undersea warfare superiority. AAI employs the capability to quickly reconstruct and analyze passive and active measurements of submarine vulnerabilities providing actionable intelligence to fleet commanders. The AAI data collection program provides full spectrum intelligence data essential for the design and development of advanced sensors, weapon systems, environmental models, and tactical decision aids. AAI collection systems are installed and employed on uniquely configured aircraft, specially configured ground support facilities, ships, and other assets as required for the collection, processing, exfiltration, and dissemination of undersea intelligence. AAI includes recording systems, advanced detection and tracking systems, specially designed sensors, advanced processing systems and techniques, and specially derived tactics.

This is a Military Intelligence Program (MIP).

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES because it includes all efforts necessary to evaluate integrated technologies, representative models or prototype systems in a high fidelity and realistic operating environment.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	4.908	6.495	9.907	-	9.907
Current President's Budget	4.908	6.495	9.835	-	9.835
Total Adjustments	-	-	-0.072	-	-0.072
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Rate/Misc Adjustments	-	-	-0.072	-	-0.072

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy	Date: February 2015
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0303354N *I ASW Systems Development - MIP*

Change Summary Explanation

Technical: Not Applicable

Schedule: Not applicable

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0303354N / *ASW Systems Development - MIP*	Project (Number/Name) 0490 / *Airborne Acoustic Intelligence (AAI)*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
0490: *Airborne Acoustic Intelligence (AAI)*	15.305	4.908	6.495	9.835	-	9.835	9.535	8.364	9.056	9.169	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The mission of Airborne Acoustic Intelligence (AAI) (CNO Project K-0416) is to provide advanced antisubmarine warfare capabilities through rapid development of new technology and prototype mechanisms for the collection of antisubmarine warfare (ASW) related intelligence. This includes full spectrum intelligence collections and cataloging of current targets of interest. The program develops and swiftly deploys disruptive innovation to counter emerging threats in order to maintain the United States' current undersea warfare superiority. AAI employs the capability to quickly reconstruct and analyze passive and active measurements of submarine vulnerabilities providing actionable intelligence to fleet commanders. The AAI data collection program provides full spectrum intelligence data essential for the design and development of advanced sensors, weapon systems, environmental models, and tactical decision aids. AAI collection systems are installed and employed on uniquely configured aircraft, specially configured ground support facilities, ships, and other assets as required for the collection, processing, exfiltration, and dissemination of undersea intelligence. AAI includes recording systems, advanced detection and tracking systems, specially designed sensors, advanced processing systems and techniques, and specially derived tactics.

This is a Military Intelligence Program (MIP).

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Systems Engineering / Aircraft Mods Active Acoustic Program	2.469	3.540	4.037	-	4.037
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Post Mission processor upgrades for Calibrated Acoustic Intelligence (ACINT). SH-60B certified to collect calibrated ACINT. P-8A authorized to collect "as-if" certified calibrated ACINT. Engineering support of the Active Target Strength sensor program. Conducted initial design of Acoustic Intelligence Collection suites (ACS).					
FY 2015 Plans: Engineering to support full spectrum ASW intelligence collections. Post mission processor upgrades for Calibrated ACINT. Airborne avionics unit development and enhancements. Field initial prototypes of ACS in support of P-8A deployments.					
FY 2016 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0303354N / *ASW Systems Development - MIP*	**Project (Number/Name)** 0490 / *Airborne Acoustic Intelligence (AAI)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Engineering support of Acoustic Intelligence (ACINT) Collection Suites for certified AAI collection platforms and management of full spectrum database. Continued upgrades for unique airborne avionics and post mission processing capabilities for ACINT/MASINT (Measurement and Signature Intelligence) requirements. Science and technology research in development of new systems. ***FY 2016 OCO Plans:*** N/A					
Title: Data Collection and Analysis	0.838	0.745	0.932	-	0.932
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Data collection support at Operational Wings. Ongoing collection of high interest acoustic and non-acoustic data in support of MASINT/ONI threat assessment requirements. Reduction, Analysis and Fleet Rapid Feedback. Conduct special operations support. Essential performance modeling and evaluation for advanced technology sensor systems design and Fleet tactics development. ***FY 2015 Plans:*** Data collection support at Operational Wings. Ongoing collection of high interest acoustic and non-acoustic data in support of MASINT/ONI threat assessment requirements. Characterization, analysis and certification of the upgraded Fleet MASINT collection assets. Reduction, Analysis and Fleet Rapid Feedback. Conduct special operations support. Essential performance modeling and evaluation for advanced technology sensor systems design and Fleet tactics development. Develop post mission analysis hardware, software and processes in response to evolving enemy capabilities. ***FY 2016 Base Plans:*** Data collection support at Operational Wings. Ongoing collection of high interest acoustic and non-acoustic data in support of MASINT/ONI threat assessment requirements. Characterization, analysis and certification of the upgraded Fleet MASINT collection assets. Reduction, Analysis and Fleet Rapid Feedback. Conduct special operations support. Essential performance modeling and evaluation for advanced technology sensor systems design and Fleet tactics development. Develop post mission analysis hardware, software and processes in response to evolving enemy capabilities. ***FY 2016 OCO Plans:*** N/A					
Title: Active Measurement Validation	0.450	0.150	0.150	-	0.150

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0303354N / *ASW Systems Development - MIP*	**Project (Number/Name)** 0490 / *Airborne Acoustic Intelligence (AAI)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Active Measurement Validation of targets of interest. Provides the acoustic analysis of echo characterization (which includes: signal excess measurements, peak frequency, trend analysis and pulse duration measurements) and target strength. ***FY 2015 Plans:*** Active Measurement Validation of targets of interest. Provides the acoustic analysis of echo characterization (which includes: signal excess measurements, peak frequency, trend analysis and pulse duration measurements) and target strength. ***FY 2016 Base Plans:*** Active Measurement Validation of targets of interest. Provides the acoustic analysis of echo characterization (which includes: signal excess measurements, peak frequency, trend analysis and pulse duration measurements) and target strength. ***FY 2016 OCO Plans:*** N/A					
Title: Navy Underwater Active Multiple Ping (NUAMP) Product Development	1.151	2.060	4.716	-	4.716
Articles:	-	-	-	-	-
FY 2014 Accomplishments: Continued initial engineering development for the production of coherent active sources of mid-sonic frequency and high sonic frequency to meet fleet operational Navy Underwater Active Multiple Ping (NUAMP) requirements. Awarded contract and began sonic frequency design, development and integration for the initial NUAMP sonic frequencies. Procured 48 prototype sonobuoys to test the initial NUAMP sonic frequencies. ***FY 2015 Plans:*** Continue sonic frequency design, development, integration, and test for additional sonic frequencies. Procure 30 prototype sonobuoys for certification of the initial NUAMP sonic frequencies. ***FY 2016 Base Plans:***					

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0303354N / *ASW Systems Development - MIP*	**Project (Number/Name)** 0490 / *Airborne Acoustic Intelligence (AAI)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Complete full qualification and certification efforts for the initial Navy Underwater Active Multiple Ping (NUAMP) sonic frequencies. Continue sonic frequency design, development, integration and test for the remaining sonic frequencies for the entire NUAMP sonobuoy family. ***FY 2016 OCO Plans:*** N/A					
Accomplishments/Planned Programs Subtotals	4.908	6.495	9.835	-	9.835

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Airborne ASW Intelligence is a CNO Special Project. The included technology developments are primarily in-house with contractor participation through existing vehicles.

E. Performance Metrics

Provide engineering to support Sound Pressure Level (SPL) recording. Provide data collection support at Operation Wings. Perform Active Measurement Validation of targets of interest.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0303354N / *ASW Systems Development - MIP*	**Project (Number/Name)** 0490 / *Airborne Acoustic Intelligence (AAI)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Active Measurement Validation	WR	NAWCAD : PATUXENT RIVER, MD	0.993	0.450	Dec 2013	0.150	Dec 2014	0.150	Dec 2015	-		0.150	Continuing	Continuing	Continuing
Ancillary Hdw Development	WR	NAWCAD : PATUXENT RIVER, MD	1.580	0.410	Dec 2013	0.395	Dec 2014	0.425	Dec 2015	-		0.425	Continuing	Continuing	Continuing
Ancillary Hdw Development Cont	Various	VARIOUS : VARIOUS	0.000	0.397	Dec 2013	0.350	Dec 2014	0.507	Dec 2015	-		0.507	Continuing	Continuing	Continuing
Systems Eng	WR	NAWCAD : PATUXENT RIVER, MD	1.048	1.831	Dec 2013	2.674	Dec 2014	3.111	Dec 2015	-		3.111	Continuing	Continuing	Continuing
Primary Hdw Development	SS/CPIF	ERAPSCO : FT. WAYNE IN	9.820	1.050	Dec 2013	2.000	Dec 2014	4.656	Dec 2015	-		4.656	10.729	28.255	32.480
		Subtotal	13.441	4.138		5.569		8.849		-		8.849	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Mgt & Prof Spt Svcs (Non-FFRDC)	Various	VARIOUS : VARIOUS	1.864	0.638	Dec 2013	0.866	Dec 2014	0.926	Dec 2015	-		0.926	Continuing	Continuing	Continuing
Contractor Eng Spt	Various	VARIOUS : VARIOUS	0.000	0.037	Dec 2013	-	Dec 2014	-	Dec 2015	-		-	Continuing	Continuing	Continuing
Government Eng Spt	WR	NAWCAD : PATUXENT RIVER, MD	0.000	0.031	Dec 2013	-		-		-		-	-	0.031	-
Travel	Various	VARIOUS : VARIOUS	0.000	0.064	Dec 2013	0.060	Dec 2014	0.060	Dec 2015	-		0.060	Continuing	Continuing	Continuing
		Subtotal	1.864	0.770		0.926		0.986		-		0.986	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0303354N / *ASW Systems Development - MIP*	Project (Number/Name) 0490 / *Airborne Acoustic Intelligence (AAI)*	

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.305	4.908		6.495		9.835		-		9.835	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0303354N / *ASW Systems Development - MIP*	**Project (Number/Name)** 0490 / *Airborne Acoustic Intelligence (AAI)*

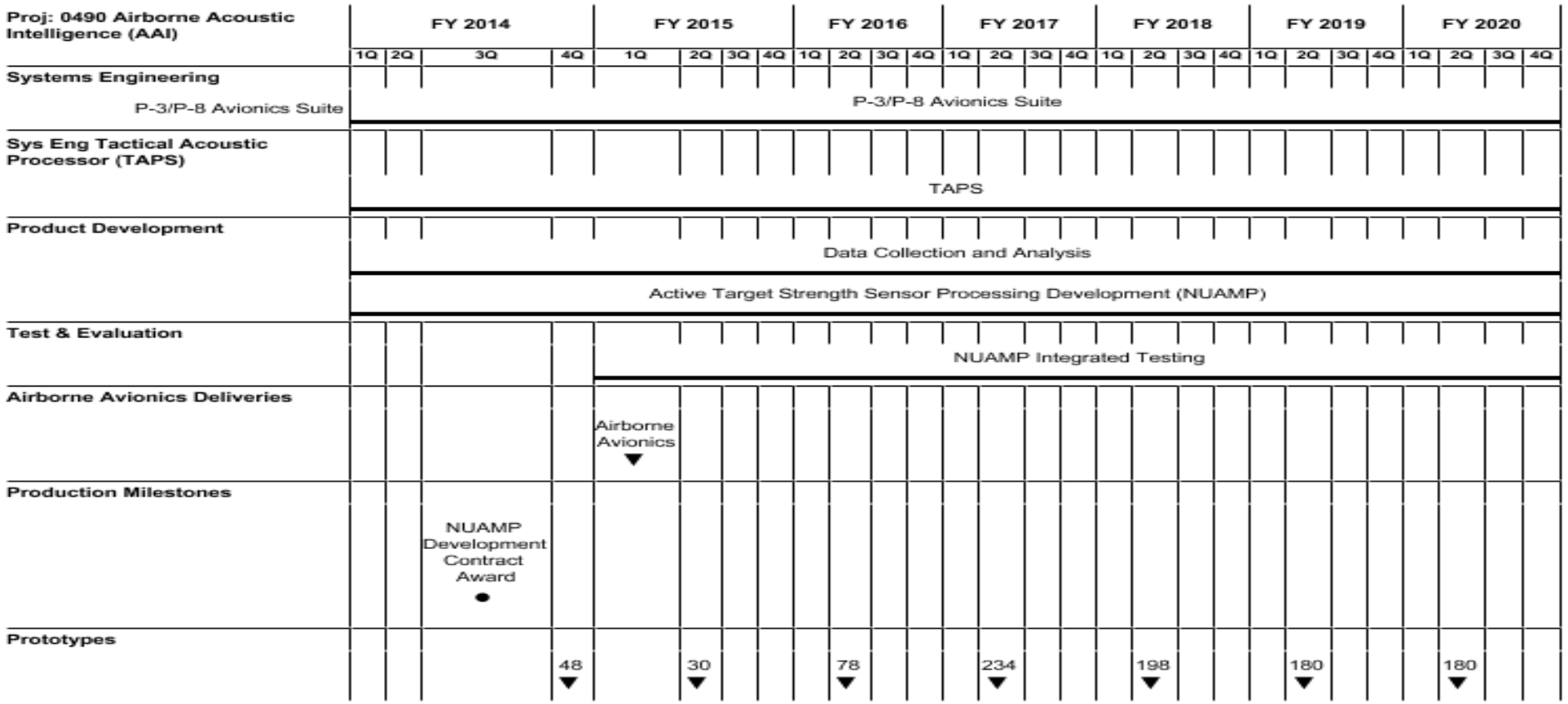

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0303354N / *ASW Systems Development - MIP*	**Project (Number/Name)** 0490 / *Airborne Acoustic Intelligence (AAI)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj: 0490 Airborne Acoustic Intelligence (AAI)				
Systems Engineering: P-3/P-8 Avionics Suite: P-3/P-8 Avionics Suite	1	2014	4	2020
Sys Eng Tactical Acoustic Processor (TAPS): Sys Eng Tactical Acoustic Processor (TAPS)	1	2014	4	2020
Product Development: Data Collection and Analysis	1	2014	4	2020
Product Development: Active Target Strength sensor processing development	1	2014	4	2020
Test & Evaluation: Technical Evaluation	1	2015	4	2020
Airborne Avionics Deliveries: Airborne Avionics	1	2015	1	2015
Production Milestones: NUAMP Contract Award	3	2014	3	2014
Prototypes: Prototype 1	4	2014	4	2014
Prototypes: Prototype 2	2	2015	2	2015
Prototypes: Prototype 3	2	2016	2	2016
Prototypes: Prototype 4	2	2017	2	2017
Prototypes: Prototype 5	2	2018	2	2018
Prototypes: Prototype 6	2	2019	2	2019
Prototypes: Prototype 7	2	2020	2	2020