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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2025 Navy **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>					<b>R-1 Program Element (Number/Name)</b> PE 0303354N / <i>ASW Systems Development - MIP</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	90.498	8.279	10.167	7.253	-	7.253	9.287	9.139	8.838	9.052	Continuing	Continuing
0490: <i>Airborne Acoustic Intelligence (AAI)</i>	90.498	8.279	10.167	7.253	-	7.253	9.287	9.139	8.838	9.052	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

The mission of Airborne ASW Intelligence (AAI) (CNO Project K-0416) is to provide advanced Anti-Submarine Warfare (ASW) capabilities through development of new technology and prototype mechanisms for the collection and analysis of ASW related intelligence. This includes full spectrum intelligence collections, analysis, and cataloging of current peer and near peer adversaries. The program develops and deploys disruptive technologies to counter emerging threats in order to maintain the United States' current undersea warfare superiority. AAI employs systems such as the Mighty Orion (MO) and Anti-Submarine Warfare Mission Planning and Reconstruction Systems (AMPRS) with the Global Reconstruction and Acoustic Measurement Suite (GRAMS) software application to support the Tasking, Collection, Processing, Exploitation, and Dissemination (TC/PED) of passive and active intelligence measurements of current and next generation submarine vulnerabilities. The AAI data collection program provides full spectrum, measured intelligence data essential for the design and development of advanced sensors, weapon systems, environmental models, and tactical decision aids by using currently fielded sonobuoy systems; developing the Passive Extended Range Sonobuoy System (PERSS) and providing prototype AN/SSQ-113 Naval Underwater Active Multi-ping (NUAMP) family of sensors to collect active target strength measurement (ATSM) data for the Intelligence Community. AAI collection systems are installed and employed on uniquely configured platforms, specially configured ground support facilities, ships, and other assets as required for the collection, processing, exfiltration, and dissemination of undersea intelligence. AAI develops advanced components and system prototypeS for 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.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	9.769	10.167	10.134	-	10.134
Current President's Budget	8.279	10.167	7.253	-	7.253
Total Adjustments	-1.490	0.000	-2.881	-	-2.881
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.490	0.000			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	0.000	0.000	-1.520	-	-1.520
• Rate/Misc Adjustments	0.000	0.000	-1.361	-	-1.361

**Change Summary Explanation**

FY 2025 Program Adjustment -\$1.52M from previous President's Budget for decrease in the Passive Extended Range Sonobuoy System (PERSS); -\$1.237M expenditure under execution reduction; -0.124M miscellaneous adjustments.

PB25 schedule reflects the continuation of PERSS to develop Extended Range - Directional Finding and Recording (ER-DIFAR) sonobuoy and associated platform integration activities. Increased cost, transition from the Office of Naval Research (ONR) at a reduced Technology Readiness level than planned, and a reduction in funding for higher Navy priorities delayed planned contract award from FY23 to FY24 and will result in delayed capability fielding. The updated schedule shows a platform integration decision point in 2Q FY28 after completion of initial ER-DIFAR development and demonstration through 1Q FY28. Updated schedule reflects delay in the delivery of qty 108 prototypes from 4Q FY23 to 2Q FY24 due to vendor deferral in providing contract proposal, parts availability and manufacturing delays.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 1319 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0303354N / ASW Systems Development - MIP				<b>Project (Number/Name)</b> 0490 / Airborne Acoustic Intelligence (AAI)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
0490: Airborne Acoustic Intelligence (AAI)	90.498	8.279	10.167	7.253	-	7.253	9.287	9.139	8.838	9.052	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

The mission of Airborne ASW Intelligence (AAI) (CNO Project K-0416) is to provide advanced Anti-Submarine Warfare (ASW) capabilities through development of new technology and prototype mechanisms for the collection and analysis of ASW related intelligence. This includes full spectrum intelligence collections, analysis, and cataloging of current peer and near peer adversaries. The program develops and deploys disruptive technologies to counter emerging threats in order to maintain the United States' current undersea warfare superiority. AAI employs systems such as the Mighty Orion (MO) and Anti-Submarine Warfare Mission Planning and Reconstruction Systems (AMPRS) with the Global Reconstruction and Acoustic Measurement Suite (GRAMS) software application to support the Tasking, Collection, Processing, Exploitation, and Dissemination (TC/PED) of passive and active intelligence measurements of current and next generation submarine vulnerabilities. The AAI data collection program provides full spectrum, measured intelligence data essential for the design and development of advanced sensors, weapon systems, environmental models, and tactical decision aids by using currently fielded sonobuoy systems; developing the Passive Extended Range Sonobuoy System; and providing prototype AN/SSQ-113 NUAMP family of sensors to collect active target strength measurement data for the Intelligence Community. AAI collection systems are installed and employed on uniquely configured platforms, specially configured ground support facilities, ships, and other assets as required for the collection, processing, exfiltration, and dissemination of undersea intelligence. AAI develops advanced components and system prototype for 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)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<b>Title:</b> Systems Engineering	2.102	1.444	1.474	0.000	1.474
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> Engineering support of Acoustic Intelligence (ACINT) as well as ASW AMPRS for certified P-8 and H-60 AAI collection platforms and management of full spectrum database. Enhance P-8 aircraft adjunct sensor station, MO, for prototyping of in-flight analysis and dissemination of ACINT. Evaluation of Fleet software releases for Office of Naval Intelligence (ONI) certification aboard ASW collection platforms. Evaluate and development of hardware and software upgrades for unique airborne avionics and sensors and fielding MO mission kits in support of P-8A deployments.					
<b>FY 2025 Base Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0303354N / ASW Systems Development - MIP	<b>Project (Number/Name)</b> 0490 / Airborne Acoustic Intelligence (AAI)

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
<p>Engineering support of ACINT as well as AMPRS for certified P-8 and uncertified H-60 AAI collection platforms and management of full spectrum database. Enhance P-8 aircraft adjunct sensor station, MO, for prototyping of in-flight analysis and dissemination of ACINT. Evaluation of Fleet software releases for ONI certification aboard ASW collection platforms. Evaluate and development of hardware and software upgrades for unique airborne avionics and sensors and fielding MO mission kits in support of P-8A deployments.</p> <p><b>FY 2025 OCO Plans:</b> N/A</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Increase due to inflation.</p>					
<p><b>Title:</b> Data Collection and Analysis</p> <p align="right"><b>Articles:</b></p> <p><b>FY 2024 Plans:</b> Data collection support at Operational Wings and Tactical ASW commands. Ongoing collection of high interest current and future generation target acoustic data in support of Measurement and Signatures Intelligence (MASINT)/ONI threat assessment and trend analysis requirements for further development of future USN Undersea Warfare (USW) capabilities. Characterization, analysis and certification of the upgraded Fleet MASINT collection assets. Data reduction, Analysis and Fleet Rapid Feedback. Conduct special operations support. Provide essential performance modeling and evaluation for advanced technology sensor systems design and Fleet tactics development. Develop in mission and post mission analysis hardware, software, and processes in response to evolving enemy capabilities.</p> <p><b>FY 2025 Base Plans:</b> Data collection support at Operational Wings and Tactical ASW commands utilizing the MO, AMPRS and GRAMS products. Ongoing collection of high interest current and future generation target acoustic data in support of MASINT/ONI threat assessment and trend analysis requirements for further development of future USN Undersea Warfare (USW) capabilities. Characterization, analysis and certification of the upgraded Fleet MASINT collection assets. Data reduction, Analysis and Rapid Fleet Feedback. Conduct special operations support. Provide essential performance modeling and evaluation for advanced technology sensor systems design and Fleet tactics development. Develop in mission and post mission analysis hardware, software, and processes in response to evolving enemy capabilities.</p> <p><b>FY 2025 OCO Plans:</b></p>	1.848	1.750	1.794	0.000	1.794
	-	-	-	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Increase due to inflation.					
<b>Title:</b> Navy Underwater Active Multiple Ping (NUAMP) Product Development	2.750	0.627	0.876	0.000	0.876
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> The NUAMP prototype effort will transition an initial set of targeted collection frequencies from design and development efforts into procurement of AN/SSQ-113 NUAMP prototype buoys for fleet collection of Active Target Strength Measurements. Development efforts will continue on the remainder of ONI prioritized frequencies.					
<b>FY 2025 Base Plans:</b> Procurement of AN/SSQ-113 NUAMP buoys will continue for certified frequencies. Continued design and development efforts will continue to address other ONI prioritized frequencies and address Diminishing Manufacturing Sources and Material Shortages via Engineering Change Proposals as required.					
<b>FY 2025 OCO Plans:</b> N/A					
<b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> The increase from FY24 to FY25 is due to an increase cost of the prototype unit deliveries. These cost increases are due to manufacturing changes and increased component costs.					
<b>Title:</b> Passive Extended Range Sonobuoy System (PERSS) Product Development	0.579	6.346	3.109	0.000	3.109
<b>Articles:</b>	-	-	-	-	-
<b>FY 2024 Plans:</b> Fully transition ER-DIFAR development from ONR efforts to an engineering development model suitable for fleet usage. Continue experimentation and prototyping in realistic operating environments to evaluate ONR transitioned design. Award follow-on development contract for continued subsystems maturation and sensor packaging within an A-sized sonobuoy volume suitable for employment from USN air ASW platforms.					
<b>FY 2025 Base Plans:</b> Complete first phase of ER-DIFAR maturation which will include finalization of System Requirements documentation, design updates and improvements required to certify prototype design for fleet air employment					

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**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
and complete the Design Data package. Begin manufacturing of prototype articles of finalized design to support FY2026/27 ER-DIFAR demonstrations.  <b>FY 2025 OCO Plans:</b> N/A  <b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease is due to N2N6 reprioritizing of the PERSS capability funding and reduction of development efforts specific to the ER-DIFAR sonobuoy.					
<b>Title:</b> Furious Krypton  <b>Articles:</b>	1.000 -	0.000 -	0.000 -	0.000 -	0.000 -
<b>FY 2024 Plans:</b> N/A  <b>FY 2025 Base Plans:</b> N/A  <b>FY 2025 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	8.279	10.167	7.253	0.000	7.253

**C. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

AAI is a CNO Special Project. The included technology developments are primarily government led with contractor participation through existing vehicles.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0303354N / ASW Systems Development - MIP	<b>Project (Number/Name)</b> 0490 / Airborne Acoustic Intelligence (AAI)
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<b>Product Development (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Active Measurement Validation	WR	NAWCAD : PATUXENT RIVER, MD	2.468	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Ancillary Hdw Development	WR	NAWCAD : PATUXENT RIVER, MD	8.379	0.449	Dec 2022	0.456	Dec 2023	0.465	Dec 2024	-		0.465	Continuing	Continuing	Continuing
Ancillary Hdw Development Cont	Various	VARIOUS : VARIOUS	5.216	2.409	Dec 2022	1.955	Dec 2023	2.200	Dec 2024	-		2.200	Continuing	Continuing	Continuing
Systems Eng	WR	NAWCAD : PATUXENT RIVER, MD	9.251	0.741	Dec 2022	0.655	Dec 2023	0.669	Dec 2024	-		0.669	Continuing	Continuing	Continuing
Systems Eng Cost	Various	VARIOUS : VARIOUS	6.394	1.361	Dec 2022	0.789	Dec 2023	0.805	Dec 2024	-		0.805	0.000	9.349	-
Primary Hdw Development	SS/CPHF	ERAPSCO : COLUMBIA CITY, IN	53.196	1.557	Dec 2022	0.304	Jan 2024	0.000		-		0.000	Continuing	Continuing	Continuing
Primary Hdw Development	Various	VARIOUS : VARIOUS	0.000	1.495	Dec 2022	5.738	Dec 2023	2.839	Dec 2024	-		2.839	0.000	10.072	-
<b>Subtotal</b>			84.904	8.012		9.897		6.978		-		6.978	Continuing	Continuing	N/A

**Remarks**  
 The Ancillary/Systems Engineering/Primary Hardware Development has changed due to the dissolution of the ERAPSCO Joint venture and all activity has moved to various activities and locations. FY24 primary hardware includes ERAPSCO cost overrun amount required to deliver NUAMP prototype systems. The overall decrease is reflective of the decrease of program funds for Primary Hardware development to meet the revised PERSS/ER-DIFAR capability introduction.

<b>Management Services (\$ in Millions)</b>				<b>FY 2023</b>		<b>FY 2024</b>		<b>FY 2025 Base</b>		<b>FY 2025 OCO</b>		<b>FY 2025 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Mgt & Prof Spt Svcs (Non-FFRDC)	Various	VARIOUS : VARIOUS	4.515	0.217	Dec 2022	0.220	Dec 2023	0.224	Dec 2024	-		0.224	Continuing	Continuing	Continuing
Travel	Various	VARIOUS : VARIOUS	0.460	0.050	Dec 2022	0.050	Dec 2023	0.051	Dec 2024	-		0.051	Continuing	Continuing	Continuing



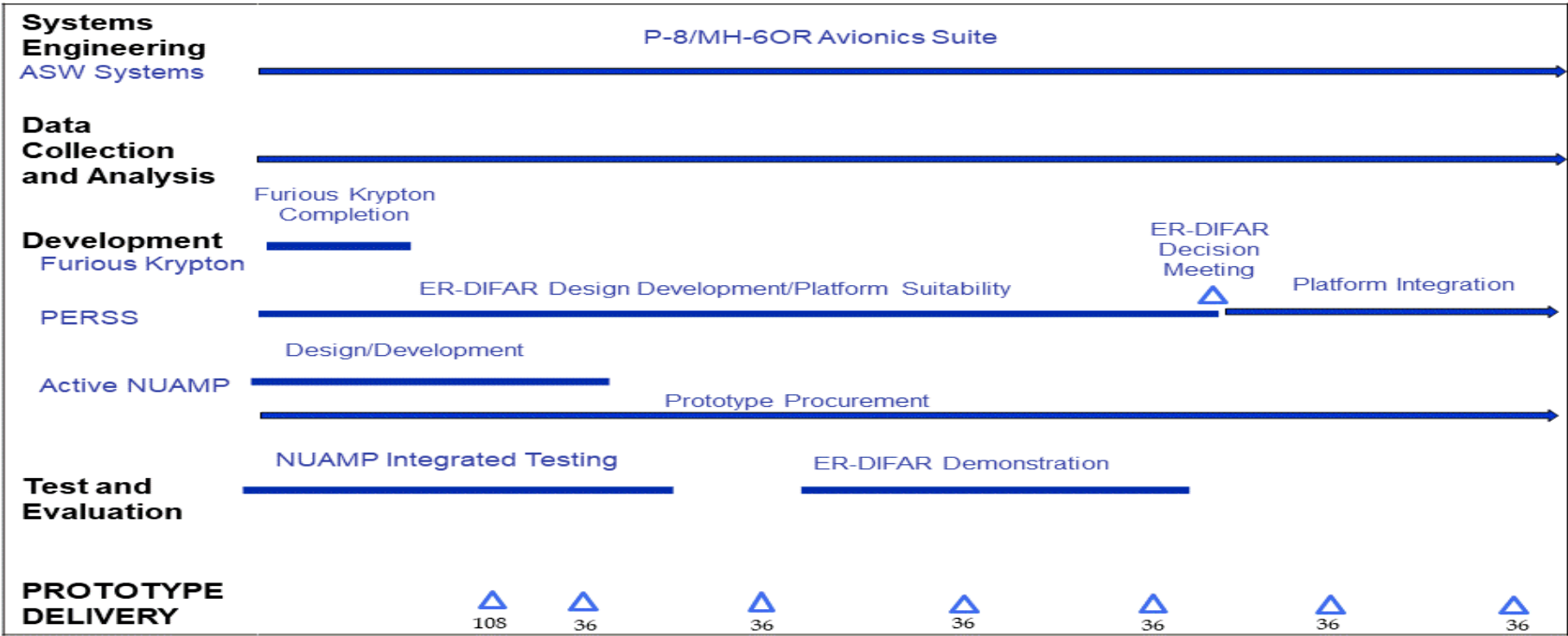
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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Navy</b>		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0303354N / ASW Systems Development - MIP	<b>Project (Number/Name)</b> 0490 / Airborne Acoustic Intelligence (AAI)



**PB25 Program Schedule Airborne Acoustic Intelligence (0490)**

FY 2023 1 2 3 4	FY 2024 1 2 3 4	FY 2025 1 2 3 4	FY 2026 1 2 3 4	FY 2027 1 2 3 4	FY 2028 1 2 3 4	FY 2029 1 2 3 4
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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Navy		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 1319 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0303354N / ASW Systems Development - MIP	<b>Project (Number/Name)</b> 0490 / Airborne Acoustic Intelligence (AAI)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj: 0490 Airborne Acoustic Intelligence (AAI)</b>				
Systems Engineering: ASW Systems: P-8/MH-60R Avionics Suite/ASW Systems	1	2023	4	2029
Data Collection and Analysis:	1	2023	4	2029
Product Development: Furious Krypton	1	2023	4	2023
Product Development: PERSS ER-DIFAR Design Development/Platform Suitability	1	2023	2	2028
Product Development: ER-DIFAR Decision Meeting	2	2028	2	2028
Product Development: PERSS Platform Integration	2	2028	4	2029
Product Development: NUAMP Design Development	1	2023	4	2024
Product Development: NUAMP Prototype Procurement	1	2023	4	2029
Product Development: Test & Evaluation: NUAMP Integrated Testing	1	2023	1	2025
Product Development: Test & Evaluation: ER-DIFAR Demonstration	1	2026	1	2028
NUAMP Deliveries: DELIVERY1	2	2024	2	2024
NUAMP Deliveries: DELIVERY2	4	2024	4	2024
NUAMP Deliveries: DELIVERY3	4	2025	4	2025
NUAMP Deliveries: DELIVERY4	4	2026	4	2026
NUAMP Deliveries: DELIVERY5	4	2027	4	2027
NUAMP Deliveries: DELIVERY6	4	2028	4	2028
NUAMP Deliveries: DELIVERY 7	4	2029	4	2029