Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Navy	Date: March 2024
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 0603254N *I ASW Systems Development*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	182.422	15.670	17.090	20.033	-	20.033	20.224	20.560	20.936	21.365	Continuing	Continuing
1292: *Adv ASW Sensors & Proc*	182.422	15.670	17.090	20.033	-	20.033	20.224	20.560	20.936	21.365	Continuing	Continuing

A. Mission Description and Budget Item Justification

Includes RDT&E funds for advanced development and developmental testing of airborne Anti-Submarine Warfare (ASW) systems including aircraft, equipment, and devices for use against all types of submarine targets.

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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	15.977	17.090	20.183	-	20.183
Current President's Budget	15.670	17.090	20.033	-	20.033
Total Adjustments	-0.307	0.000	-0.150	-	-0.150
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.307	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.150	-	-0.150

Change Summary Explanation

FY23 -$0.307M SBIR/STTR transfer reduction
FY24 N/A
FY25 -$0.150M Rate/Misc Adjustments

Schedule: N/A

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy											Date: March 2024	
Appropriation/Budget Activity 1319 / 4					R-1 Program Element (Number/Name) PE 0603254N / *ASW Systems Development*				Project (Number/Name) 1292 / *Adv ASW Sensors & Proc*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
1292: *Adv ASW Sensors & Proc*	182.422	15.670	17.090	20.033	-	20.033	20.224	20.560	20.936	21.365	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program improves Air Anti-Submarine Warfare (ASW) effectiveness through development and maturation of advanced hardware and software associated with airborne acoustic and non-acoustic sub-systems. This includes sensors and components, data recording, processing, post-processing and display capabilities to address near-peer threat scenarios against surfaced or submerged conventionally and nuclear powered submarines. Key objectives include: advancing active and passive sensors and components; improving detection, classification, localization and tracking; and increasing capacity and flexibility to handle multi-sensor data loads. Technology evaluations include sonobuoy communication links to/from aircraft, distributed netted sensors, transient signals, and source and receiver technologies that will enhance passive and multistatic active sensor systems.

Products being funded during the FYDP will provide for the development and maturation of persistent tactical search technologies that will allow transition to the localization and attack phase in operationally relevant environments. In addition, the program will provide for the development and subsequent experimentation, including data collection and engineering measurement, of the next generation of multistatic sources and receivers; passive sensors and processors; and non-acoustic technologies. Matured technologies that increase operational capability will transition to acquisition programs of record for eventual release on ASW platforms. The RDT&E test articles, which consist of sensors, components and associated processing, are employed and expended in support of and during in-water experimentation.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: System performance assessments	15.670	17.090	20.033	0.000	20.033
Articles:	90	180	180	-	180
FY 2024 Plans: Employ the UnderSea Advantage (USA) prototypes, models, processors and algorithms in relevant demonstrations to validate technical maturity and assess operational performance. Execute test(s) in operational environments, and conduct data analyses to evaluate the prototype hardware and associated algorithms. Progress towards the acquisition phase by addressing performance assessments, gap analyses, and rapid prototyping of the next generation of active and passive system enhancements.					
FY 2025 Base Plans: Initiate airborne system demonstration of USA Block 1 for transition to the integration phase. Begin development of prototype USA Blocks 2 and 3 components and mature viable passive sensors components.					
FY 2025 OCO Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603254N / *ASW Systems Development*	**Project (Number/Name)** 1292 / *Adv ASW Sensors & Proc*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY24 to FY25 increase is to buy air-deployable prototype sensors for demonstration.					
Accomplishments/Planned Programs Subtotals	15.670	17.090	20.033	0.000	20.033

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• RDT&E/0480: *ASW Sensors & Proc*	43.621	43.874	42.685	-	42.685	43.054	45.109	45.924	46.874	Continuing	Continuing

Remarks

D. Acquisition Strategy

Develop and mature acoustic and non-acoustic ASW technologies that have high potential for meeting documented capability gaps and Fleet requirements. As funding permits for technology maturation, transition those technologies to acquisition programs of record for eventual Fleet release on ASW platforms.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy			Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603254N / *ASW Systems Development*	Project (Number/Name) 1292 / *Adv ASW Sensors & Proc*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Development	Various	Various : Various	17.734	5.066	Dec 2022	5.521	Dec 2023	6.955	Dec 2024	-		6.955	Continuing	Continuing	Continuing
		Subtotal	17.734	5.066		5.521		6.955		-		6.955	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	WR	NAWCAD : PATUXENT RIVER, MD	15.568	3.546	Dec 2022	3.781	Dec 2023	4.282	Dec 2024	-		4.282	0.000	27.177	-
Studies & Analysis	WR	NAWCAD : PATUXENT RIVER, MD	15.412	2.056	Dec 2022	2.194	Dec 2023	2.832	Dec 2024	-		2.832	Continuing	Continuing	Continuing
		Subtotal	30.980	5.602		5.975		7.114		-		7.114	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation (DT&E)	Various	Various : Various	35.740	3.150	Dec 2022	3.580	Dec 2023	3.902	Dec 2024	-		3.902	Continuing	Continuing	Continuing
		Subtotal	35.740	3.150		3.580		3.902		-		3.902	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Eng Spt	Various	Various : Various	26.776	1.103	Dec 2022	1.151	Dec 2023	1.252	Dec 2024	-		1.252	Continuing	Continuing	Continuing
ENG & TECH SVCS (NON-FFRDC)	Various	Various : Various	3.494	0.100	Dec 2022	0.100	Dec 2023	0.100	Dec 2024	-		0.100	Continuing	Continuing	Continuing
MGT & PROF SVCS (FFRDC)	Various	Various : Various	1.957	0.091	Dec 2022	0.100	Dec 2023	0.100	Dec 2024	-		0.100	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	R-1 Program Element (Number/Name) PE 0603254N / *ASW Systems Development*	Project (Number/Name) 1292 / *Adv ASW Sensors & Proc*

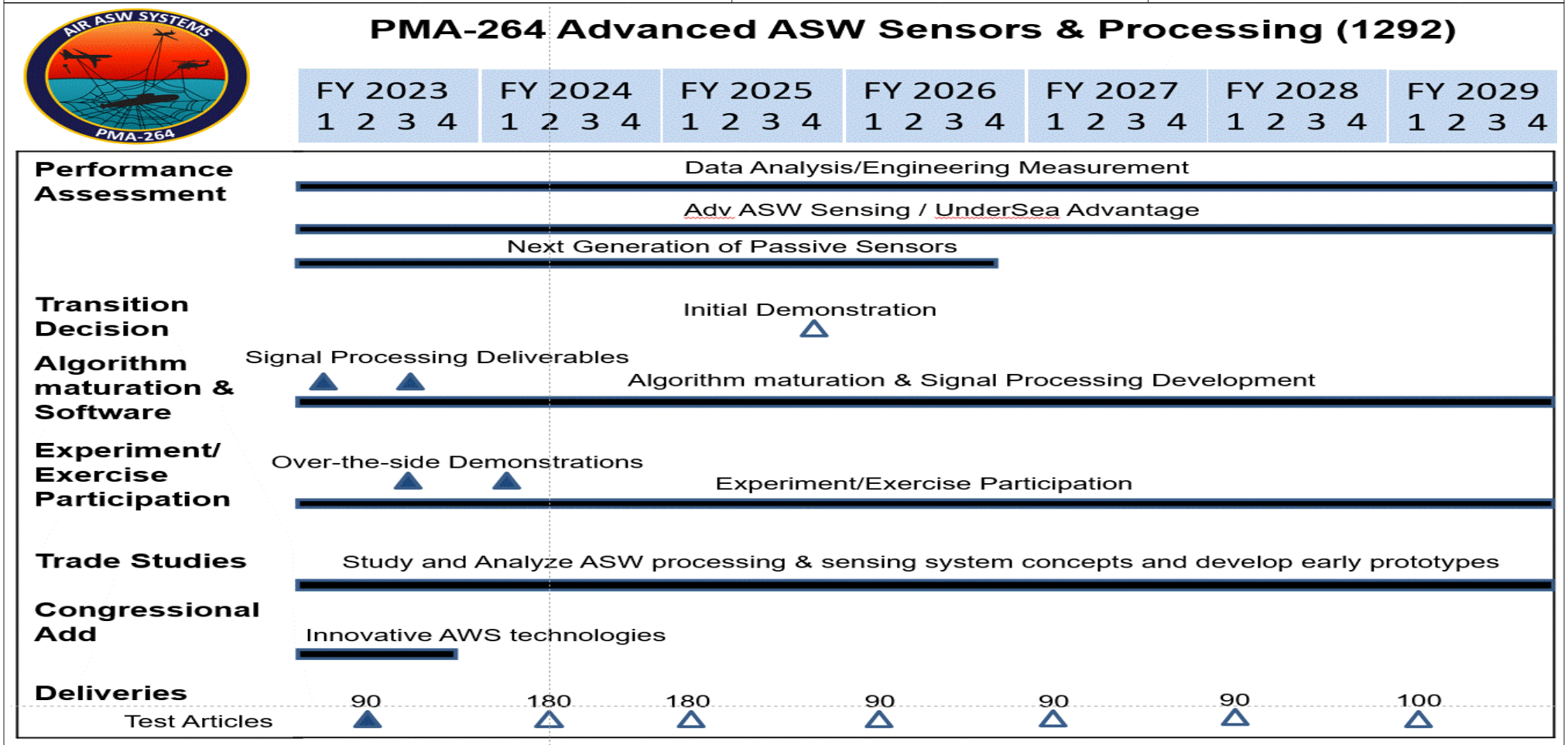
Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Eng Spt	WR	NAWCAD : PATUXENT RIVER, MD	65.545	0.550	Dec 2022	0.655	Dec 2023	0.602	Dec 2024	-		0.602	Continuing	Continuing	Continuing
Travel	Various	VARIOUS : VARIOUS	0.196	0.008	Dec 2022	0.008	Dec 2023	0.008	Dec 2024	-		0.008	Continuing	Continuing	Continuing
		Subtotal	97.968	1.852		2.014		2.062		-		2.062	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	182.422	15.670		17.090		20.033		-		20.033	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603254N / *ASW Systems Development*	**Project (Number/Name)** 1292 / *Adv ASW Sensors & Proc*



The RDT&E test articles, which consist of sensors, components and associated processors are employed and expended in support of and during in-water experimentation.

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Navy		Date: March 2024
Appropriation/Budget Activity 1319 / 4	**R-1 Program Element (Number/Name)** PE 0603254N / *ASW Systems Development*	**Project (Number/Name)** 1292 / *Adv ASW Sensors & Proc*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj: 1292 - Adv ASW Sensors & Processors				
Performance Assessment: Data Analysis/Engineering Measurement	1	2023	4	2029
Performance Assessment: Advanced ASW sensing / Undersea Advantage	1	2023	4	2029
Performance Assessment: Next Generation of Passive Sensors	1	2023	4	2026
Transition Decision: Initial Demonstration	4	2025	4	2025
Algorithm maturation & Software: Signal Processing Deliverable 1	1	2023	1	2023
Algorithm maturation & Software: Signal Processing Deliverable 2	3	2023	3	2023
Algorithm maturation & Software: Algorithm maturation & Signal Processing Development	1	2023	4	2029
Experiment/Exercise Participation: Over-the-side Demonstrations (2)	3	2023	3	2023
Experiment/Exercise Participation: Over-the-side Demonstrations (3)	1	2024	1	2024
Experiment/Exercise Participation: Experiment/Exercise Participation	1	2023	4	2029
Trade Studies: Trade Studies	1	2023	4	2029
Congressional Add: Innovative AWS technologies	1	2023	4	2023
Deliveries: Test Articles: FY23 Test Article Deliveries	2	2023	2	2023
Deliveries: Test Articles: FY24 Test Article Deliveries	2	2024	2	2024
Deliveries: Test Articles: FY25 Test Article Deliveries	1	2025	1	2025
Deliveries: Test Articles: FY26 Test Article Deliveries	1	2026	1	2026
Deliveries: Test Articles: FY27 Test Article Deliveries	1	2027	1	2027
Deliveries: Test Articles: FY28 Test Article Deliveries	1	2028	1	2028
Deliveries: Test Articles: FY29 Test Article Deliveries	1	2029	1	2029