Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604261N *I Acoustic Search Sensors*

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	639.342	45.697	49.057	50.231	-	50.231	49.322	49.600	50.279	51.110	Continuing	Continuing
0480: *ASW Sensors & Proc*	510.594	41.860	40.181	46.001	-	46.001	45.176	45.432	46.053	46.815	Continuing	Continuing
3224: *High Altitude ASW*	128.748	3.837	3.876	4.230	-	4.230	4.146	4.168	4.226	4.295	Continuing	Continuing
9999: *Congressional Adds*	0.000	0.000	5.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.000

A. Mission Description and Budget Item Justification

Includes RDT&E funds for engineering development and operational test and evaluation of acoustic search sensors/systems and complementary equipment for Anti-Submarine Warfare (ASW) aircraft.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	47.182	46.066	0.000	-	0.000
Current President's Budget	45.697	49.057	50.231	-	50.231
Total Adjustments	-1.485	2.991	50.231	-	50.231
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.009			
• Congressional Rescissions	-	-			
• Congressional Adds	-	5.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.485	0.000			
• Program Adjustments	0.000	0.000	0.000	-	0.000
• Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000
• Adjustments to Budget Year	-	-	50.231	-	50.231

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: 9999: *Congressional Adds*		
Congressional Add: *Sonobuoy capabilities research*	0.000	5.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Navy	Date: April 2022
Appropriation/Budget Activity 1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0604261N *I Acoustic Search Sensors*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Congressional Add Subtotals for Project: 9999	0.000	5.000
Congressional Add Totals for all Projects	0.000	5.000

Change Summary Explanation

FY21: -$1.485M SBIR
FY22: +$2.991M Congressional adjustments
Technical: N/A
Schedule: MAC-E IOC date 1Q/26 to align with PE 0605504N

FY 2023 funding increase reflects the fact that the FY 2022 President’s Budget request did not include out-year funding.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604261N / *Acoustic Search Sensors*	Project (Number/Name) 0480 / *ASW Sensors & Proc*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
0480: *ASW Sensors & Proc*	510.594	41.860	40.181	46.001	-	46.001	45.176	45.432	46.053	46.815	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Anti-Submarine Warfare (ASW) Sensors and Processing project provides the tools and methods necessary to maintain naval superiority by preventing threat submarines from disrupting the U.S. Navy's ability to control the sea lines of communication and completing their hostile missions. This project encompasses the Engineering & Manufacturing Development phase and the follow-on Production and Deployment Phase of sensor systems to improve the mission effectiveness of airborne ASW platforms in cueing, searching, localizing, tracking, and attacking subsurface targets. Smaller and quieter threat submarines drive the requirement for continued advancement in ASW sensor capabilities for both blue water and littoral environments. The littoral regions of the world create an additional ASW challenge to overcome the increase in background clutter caused by the shallow water depth, high volume of shipping, and commercial radio frequency interference. Project 0480 provides funding to the passive and active ASW family of systems for the engineering development of solutions that detect, classify, and track threat submarines. The Multi-Static Active Coherent (MAC) program encompasses modifications to the active coherent (electronic) source sonobuoy, the Air Deployable Active Receiver sonobuoy, and the development, integration, and test of acoustics software products. It also provides upgrades to the Multi-static mission planning tool, the tactical crew trainers and the tactical ground replay system. This program includes MAC Enhancements (MAC-E) that will shorten the ASW kill chain by enabling the warfighter to search larger areas in less time with more precision. MAC-E is developed (within Program Element (PE) 0604261N) and integrated into the Acoustic Operational Flight Program (AOFP). The AOFP is integrated into the platform via PE 0605504N. The Next Generation of MAC is a series of wide area search enhancements that provide transformational increase in capabilities, beginning with Undersea Advantage, a capability that is being demonstrated via PE 0603254N and will be developed and integrated into the AOFP and platform via PE 0604261N.

Project 0480 also provides funding for the Advanced Product Build (APB) program which integrates Office of Naval Research (ONR) Future Naval Capabilities (FNCs), Small Business Innovation Research (SBIR), and University Affiliated Research Center (UARC) products and other mature technologies into the processing baseline. Efforts incorporate clutter reduction, automation, improved displays and controls, as well as improved communication links resulting in reduced operator workload, increased target detection opportunities, and improved classification techniques. APB also includes an Air ASW Engineering Measurement Program (AAEMP) that collects ASW operational system performance data and identifies areas where beneficial improvements can be incorporated across all Air ASW platforms. APB will deliver a new software build nominally in two year increments following MAC-E. The sonobuoy test articles in FY21-FY27 will support software and hardware integration flight tests and data collection and analysis for the MAC program.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: APB System Qualification Test/Fleet Release for P-3C. Rapid Capability Insertion (RCI)/Fleet Release for P-8A	7.747	5.881	8.772	0.000	8.772
Articles:	-	-	-	-	-
FY 2022 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 0480 / *ASW Sensors & Proc*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Continue software development and AAEMP for P-8A as opportunity allows. Continue MAC FITs for P-8A squadrons. ***FY 2023 Base Plans:*** Continue software development and AAEMP for P-8A as opportunity allows. Continue MAC FITs for P-8A squadrons. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY22 to FY23 increase is for mission critical fleet software development, AAEMP, and MAC-E FITs for P-8A squadrons, which are required for mission success.					
Title: Multi-static Active Coherent (MAC)	34.113	34.300	37.229	0.000	37.229
Articles:	130	130	130	-	130
FY 2022 Plans: Continue MAC-E System of Systems and AOFP Software Development and Corrections of Deficiency (COD) as a result of the integration and testing of the ECP-7 AOFP software into the P-8A platform. Continue conducting data gathering events and data collection and analysis in support of MAC-E and Next Gen MAC systems. Begin MAC-E Developmental Test (DT) and training capability improvement efforts. ***FY 2023 Base Plans:*** Continue MAC-E System of Systems and AOFP Software Development and Corrections of Deficiency (COD) as a result of the integration and testing of the ECP-7 AOFP software into the P-8A platform. Continue conducting data gathering events and data collection and analysis in support of MAC-E and Next Gen MAC systems. Continue MAC-E Developmental Test (DT) and training capability improvement efforts. ***FY 2023 OCO Plans:*** N/A ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY22 to FY23 increase is to support the DT/COD for MAC-E System of Systems and AOFP Software development. Continue conducting data gathering events and data collection/analysis in support of Next Generation MAC.					
Accomplishments/Planned Programs Subtotals	41.860	40.181	46.001	0.000	46.001

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 0480 / *ASW Sensors & Proc*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• OPN/4048: *Sonobuoys - AN/SSQ-125 (Multistatic Coherent Source)*	90.766	78.399	86.718	-	86.718	96.214	92.718	94.721	77.156	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Multistatic Active Coherent (MAC) ASW system and associated sonobuoys are fully integrated on the P-3C and P-8A ASW platforms. MAC Enhancements (MAC-E) is a development program associated with P-8A increment 3 that will significantly increase the wide area search capability through Engineering Change Proposals (ECPs) to the sonobuoys, aircraft software modifications to reduce clutter and improve processing, and OMI improvements to reduce operator workload. The Next Generation (Next Gen) of MAC addresses threat submarine advancements through the introduction of a series of sensor system capability enhancements, beginning with Undersea Advantage. S&T and early R&D ASW improvement programs are matured through the APB process for periodic Fleet software releases.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604261N / *Acoustic Search Sensors*	Project (Number/Name) 0480 / *ASW Sensors & Proc*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Development	SS/CPIF	ERAPSCO : FT. WAYNE IN	26.847	0.000		0.000		0.000		-		0.000	17.500	44.347	44.347
Prior year Prod Dev no longer funded in the FYDP	Various	VARIOUS : VARIOUS	19.905	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Software Development	C/CPIF	Boeing : Huntington Beach, CA	24.381	12.600	Dec 2020	12.560	Dec 2021	13.158	Dec 2022	-		13.158	0.000	62.699	25.460
Software Development	WR	NAWCAD : PATUXENT RIVER, MD	48.397	5.325	Dec 2020	5.280	Dec 2021	6.399	Dec 2022	-		6.399	Continuing	Continuing	Continuing
Software Development	SS/CPIF	LOCKHEED MARTIN : MANASSAS VA	17.822	2.168	Dec 2020	3.520	Dec 2021	3.515	Dec 2022	-		3.515	3.727	30.752	21.549
Software Development	Various	VARIOUS : VARIOUS	43.275	8.721	Dec 2020	8.734	Dec 2021	9.449	Dec 2022	-		9.449	Continuing	Continuing	Continuing
		Subtotal	180.627	28.814		30.094		32.521		-		32.521	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies & Analysis	Various	VARIOUS : VARIOUS	25.613	2.678	Dec 2020	0.319	Dec 2021	2.762	Dec 2022	-		2.762	Continuing	Continuing	Continuing
Technical Data	WR	NAWCAD : PATUXENT RIVER, MD	17.493	0.350	Dec 2020	0.352	Dec 2021	0.446	Dec 2022	-		0.446	Continuing	Continuing	Continuing
Training	WR	NAWCAD : PATUXENT RIVER, MD	11.684	2.574	Dec 2020	2.404	Dec 2021	3.071	Dec 2022	-		3.071	Continuing	Continuing	Continuing
		Subtotal	54.790	5.602		3.075		6.279		-		6.279	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604261N / *Acoustic Search Sensors*	Project (Number/Name) 0480 / *ASW Sensors & Proc*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Eval	Various	VARIOUS : VARIOUS	42.549	3.572	Dec 2020	3.520	Dec 2021	3.568	Dec 2022	-		3.568	Continuing	Continuing	Continuing
		Subtotal	42.549	3.572		3.520		3.568		-		3.568	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Eng Spt	Various	VARIOUS : VARIOUS	48.927	1.174	Dec 2020	1.012	Dec 2021	0.992	Dec 2022	-		0.992	Continuing	Continuing	Continuing
Contractor Eng Spt	C/CPFF	NAVMAR APPLIED SCIENCES CORP : WARMINSTER, PA	10.763	1.203	Dec 2020	1.032	Dec 2021	0.950	Dec 2022	-		0.950	2.810	16.758	13.573
Government Eng Spt	WR	NAWCAD : PATUXENT RIVER, MD	99.548	0.344	Dec 2020	0.304	Dec 2021	0.353	Dec 2022	-		0.353	Continuing	Continuing	Continuing
Eng & Tech Spt Srvc (NON-FFRDC)	Various	VARIOUS : VARIOUS	62.504	1.151	Dec 2020	1.144	Dec 2021	1.338	Dec 2022	-		1.338	Continuing	Continuing	Continuing
Mgt & Prof SptT Srvc (FFRDC)	Various	VARIOUS : VARIOUS	10.018	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Prior Years Mgmt Svcs no longer funded in the FYDP	Various	VARIOUS : VARIOUS	0.868	0.000		0.000		0.000		-		0.000	0.000	0.868	0.868
		Subtotal	232.628	3.872		3.492		3.633		-		3.633	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	510.594	41.860		40.181		46.001		-		46.001	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 0480 / *ASW Sensors & Proc*

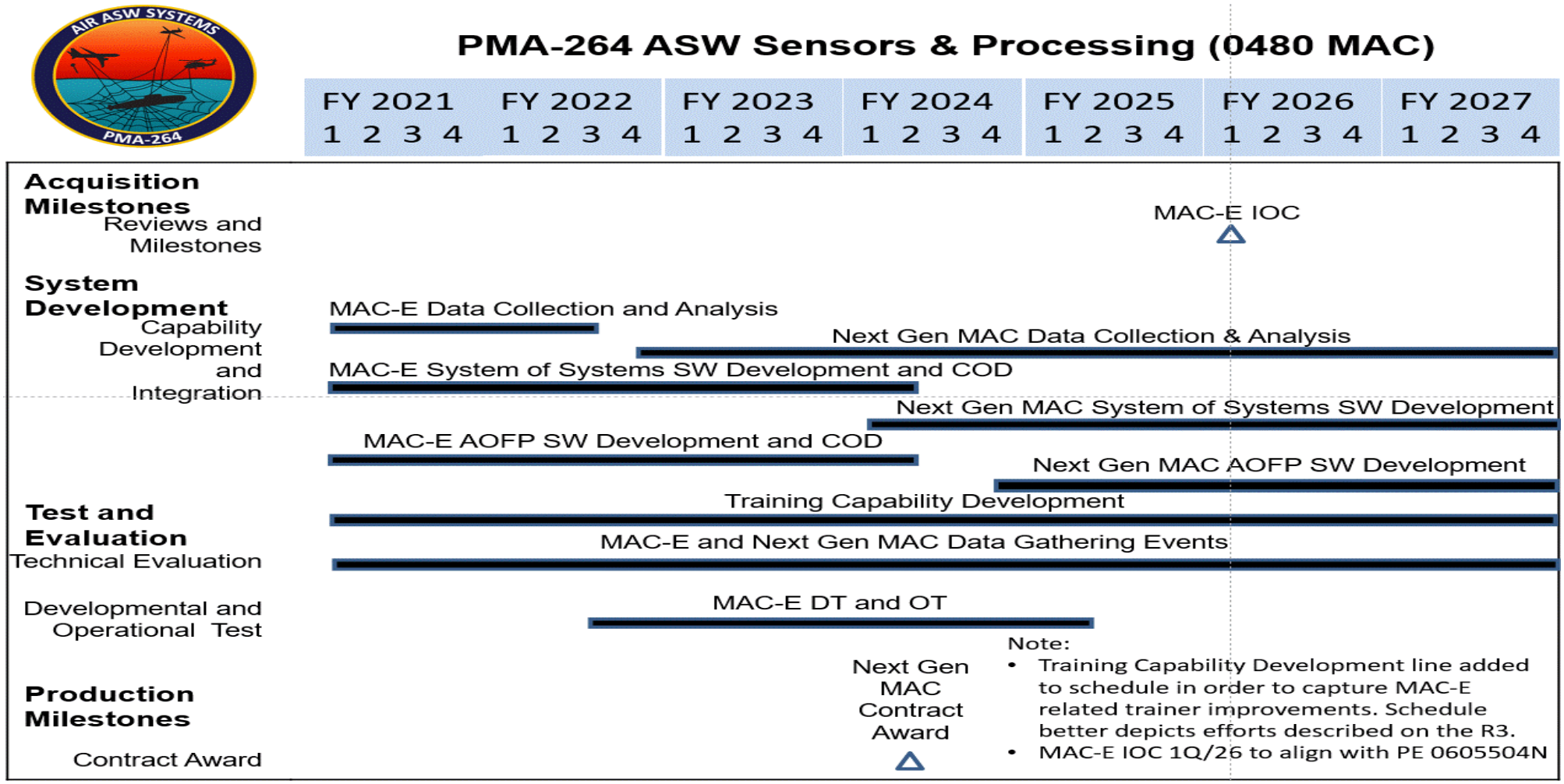

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 0480 / *ASW Sensors & Proc*

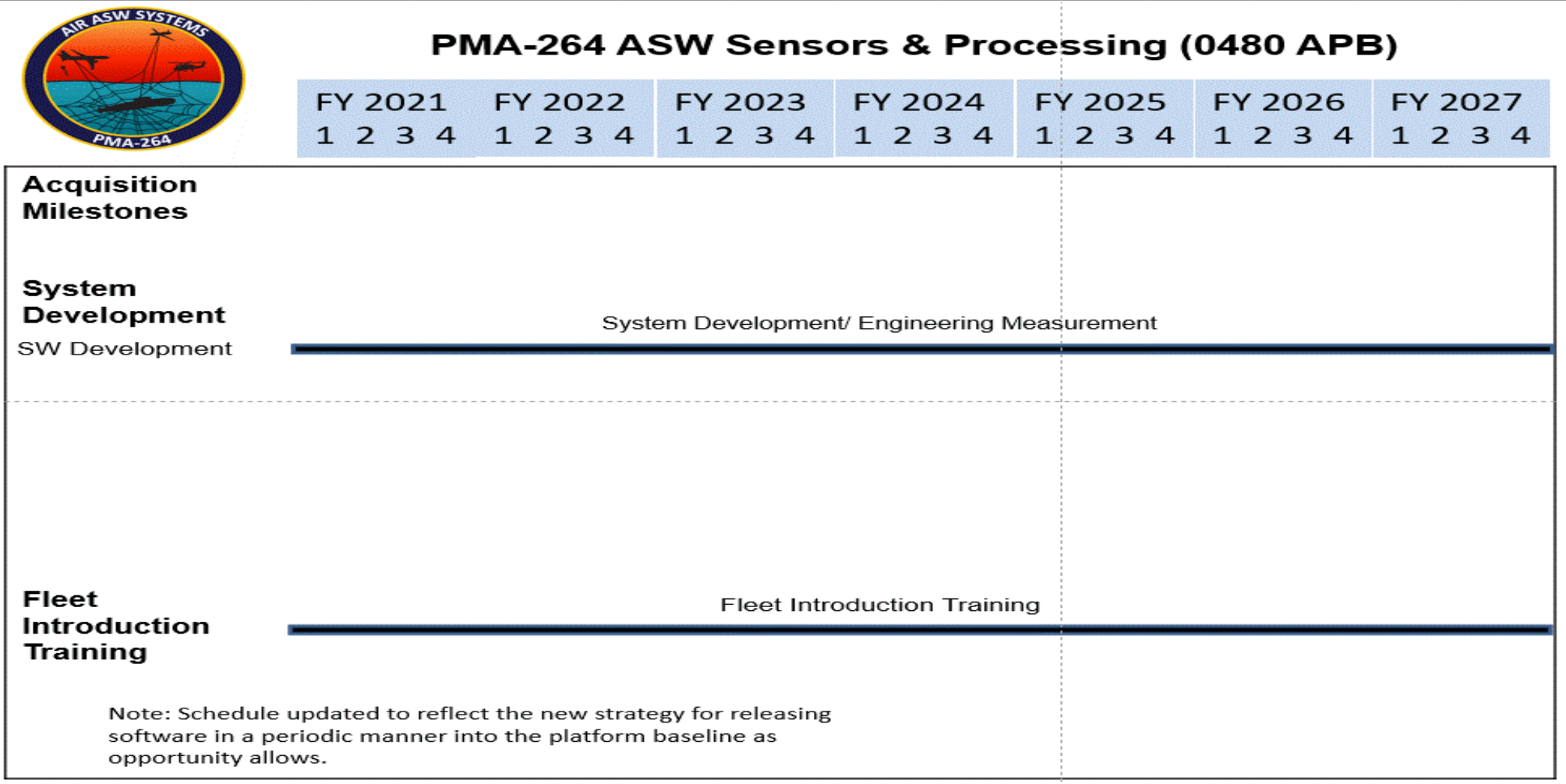

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 0480 / *ASW Sensors & Proc*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj: 0480 ASW Sensors & Processors - Multistatic Active Coherent				
Acquistion Milestones: Reviews and Milestones: Initial Operational Capability	1	2026	1	2026
System Development: Capability Development and Integration: MAC-E Data Collection & Analysis	1	2021	3	2022
System Development: Next Gen MAC Data Collection & Analysis	4	2022	4	2027
System Development: MAC-E System of Systems Software Development and COD	1	2021	2	2024
System Development: Next Gen MAC System of Systems Software Development	1	2024	4	2027
System Development: MAC-E AOFP S/W Development and COD	1	2021	2	2024
System Development: Next Gen MAC AOFP S/W Development	4	2024	4	2027
Test & Evaluation: Technical Evaluation: Training Capability Development	1	2021	4	2027
Test & Evaluation: Technical Evaluation: MAC-E & Next Gen MAC Data Gathering Events	1	2021	4	2027
Test & Evaluation: Developmental and Operational Test: MAC-E Operational Test	3	2022	2	2025
Production Milestones: Contract Awards: Next Gen MAC-E Contract Award	2	2024	2	2024
Proj: 0480 ASW Sensors & Processors - Advanced Product Builds (APB)				
System Development: Software Development: System Development/Engineering Measurement	1	2021	4	2027
Fleet Introduction Training: Fleet Intro Trng	1	2021	4	2027

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604261N / *Acoustic Search Sensors*	Project (Number/Name) 3224 / *High Altitude ASW*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
3224: *High Altitude ASW*	128.748	3.837	3.876	4.230	-	4.230	4.146	4.168	4.226	4.295	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The High Altitude Anti-Submarine Warfare (HAASW) program increases P-8A operational flexibility and effectiveness throughout the kill chain at higher than traditional ASW altitudes. The NATO compatible digital telemetry will improve sonobuoy communication performance in high Radio Frequency Interference environments, increase Air Deployable Active Receiver (SSQ-101) channel availability. FY21-FY27 activities include continued sensor improvements and verification testing of the encryption/ GPS into the SSQ-125A to support the P-8A aircraft.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Title: High Altitude Enablers	3.837	3.876	4.230	0.000	4.230
Articles:	-	-	-	-	-
FY 2022 Plans: Continue improved sonobuoys capability in support of P-8 Inc 2. Continue digital telemetry/encryption requirements analysis.					
FY 2023 Base Plans: Continue sonobuoy and communications improvements in support of P-8A Inc 3. Continue digital telemetry integration and encryption prototyping.					
FY 2023 OCO Plans: N/A					
FY 2022 to FY 2023 Increase/Decrease Statement: FY23 increase will continue sonobuoy and communications improvements and continue digital telemetry/ encryption analysis and prototyping.					
Accomplishments/Planned Programs Subtotals	3.837	3.876	4.230	0.000	4.230

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• OPN/4048: *Sonobuoys - All Types*	303.493	296.871	291.670	-	291.670	305.268	305.961	312.232	299.012	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 3224 / *High Altitude ASW*

D. Acquisition Strategy

A 15 March 12 Acquisition Decision Memorandum (ADM) from PEO(A) (Milestone Decision Authority) approved the transition from a planned Acquisition Category (ACAT) Program to a series of Engineering Change Proposal (ECP) modifications to the AN/SSQ-36, AN/SSQ-53, AN/SSQ-62, AN/SSQ-101 and SSQ-125 sonobuoys. Affordability deferred the digital telemetry requirement in the SSQ-36, SSQ-53, and SSQ-62 sonobuoys to FY21-FY27. All major contracts (ERAPSCO & Boeing) to meet P-8A Inc 2 ECP 2 and ECP 3 requirements have been awarded. FY19 initiated sonobuoy cyber protection analysis. FY20-FY22 integrates the cyber solution into prototypes. FY22-FY27 supports the transition of cyber protection to production.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604261N / *Acoustic Search Sensors*	Project (Number/Name) 3224 / *High Altitude ASW*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Development	C/CPFF	VARIOUS : VARIOUS	4.781	0.800	Nov 2020	1.243	Nov 2021	1.451	Nov 2022	-		1.451	2.600	10.875	7.381
Prior year Prod Dev no longer funded in the FYDP	Various	VARIOUS : VARIOUS	44.280	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Primary Hdw Development	C/CPFF	FLIGHTLINE : VICTOR NY	0.000	1.000	Nov 2020	1.202	Nov 2021	1.267	Nov 2022	-		1.267	0.000	3.469	-
INC 3 A/C Software Integration	C/CPFF	BOEING : SEATTLE WA	4.113	0.870	Nov 2020	0.860	Nov 2021	0.899	Nov 2022	-		0.899	0.000	6.742	4.256
		Subtotal	53.174	2.670		3.305		3.617		-		3.617	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior year Support cost no longer funded in the FYDP	Various	VARIOUS : VARIOUS	35.380	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	35.380	0.000		0.000		0.000		-		0.000	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Eval	Various	VARIOUS : VARIOUS	7.651	0.549	Nov 2020	0.000	Nov 2021	0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	7.651	0.549		0.000		0.000		-		0.000	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Eng Spt	Various	VARIOUS : VARIOUS	3.873	0.148	Nov 2020	0.145	Nov 2021	0.163	Nov 2022	-		0.163	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604261N / *Acoustic Search Sensors*	Project (Number/Name) 3224 / *High Altitude ASW*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Eng Spt	WR	NAWCAD : PATUXENT RIVER, MD	25.081	0.470	Nov 2020	0.426	Nov 2021	0.450	Nov 2022	-		0.450	Continuing	Continuing	Continuing
Prior Year Mngmt Svcs no longer funded in the FYDP	Various	VARIOUS : VARIOUS	3.589	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	32.543	0.618		0.571		0.613		-		0.613	Continuing	Continuing	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	128.748	3.837		3.876		4.230		-		4.230	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 3224 / *High Altitude ASW*

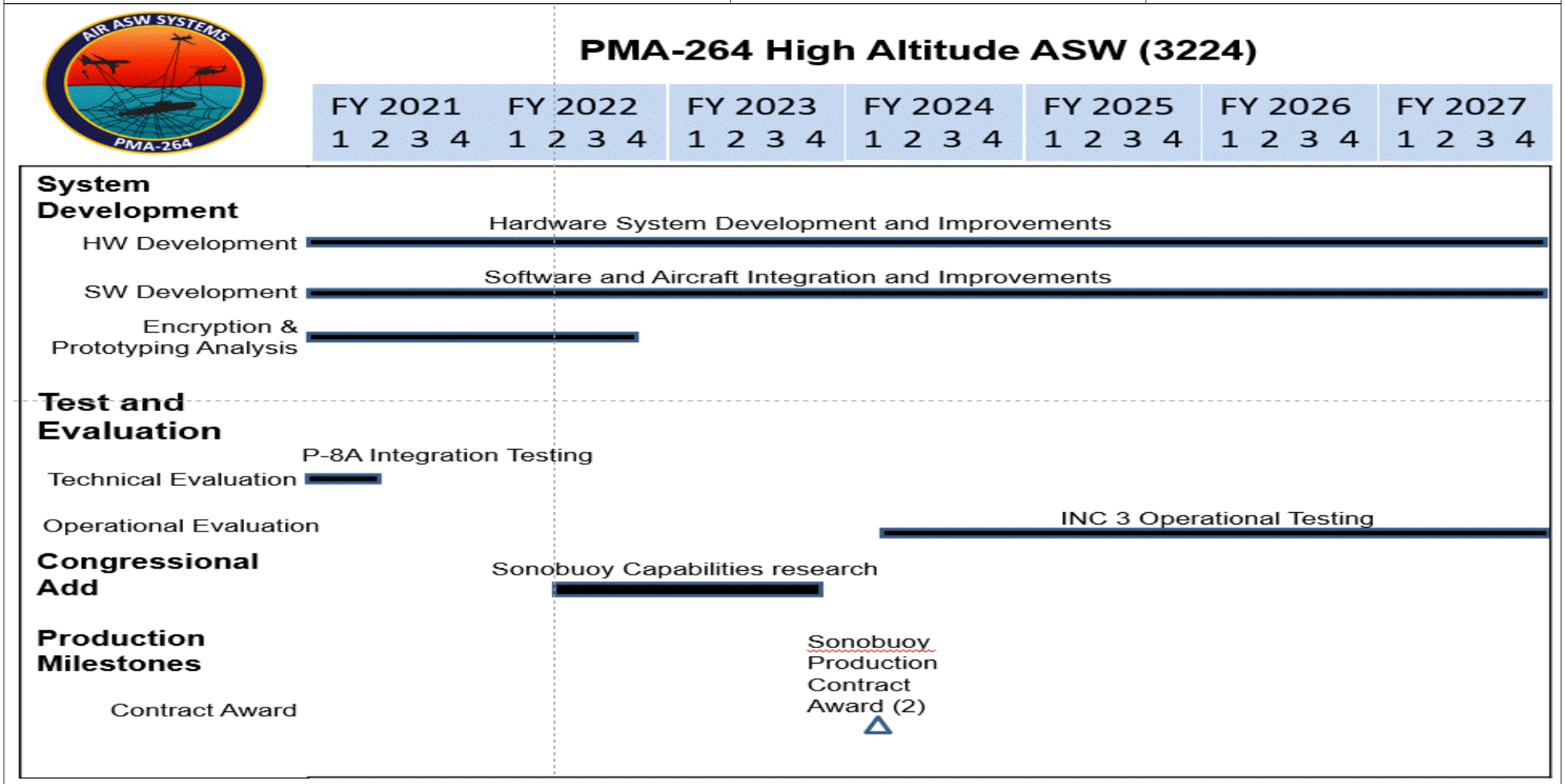

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 3224 / *High Altitude ASW*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj: 3224 High Altitude ASW				
System Development: Hardware Development: Hardware System Development	1	2021	4	2027
System Development: Software Development: Aircraft Software Development/ Integration	1	2021	4	2027
System Development: Encryption Analysis: Encryption Analysis & Prototyping	1	2021	4	2022
Test & Evaluation: Technical Evaluation: INC 2 Integration Testing	1	2021	2	2021
Test & Evaluation: Operational Evaluation: INC 3 Operational Testing	1	2024	4	2027
Congressional Add: Sonobuoy Capabilities Research	2	2022	4	2023
Production Milestones: Contract Awards: Sonobuoy Production Contract Award (2)	1	2024	1	2024

Exhibit R-2A, RDT&E Project Justification: PB 2023 Navy											Date: April 2022	
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604261N / *Acoustic Search Sensors*				Project (Number/Name) 9999 / *Congressional Adds*			
COST ($ in Millions)	**Prior Years**	**FY 2021**	**FY 2022**	**FY 2023 Base**	**FY 2023 OCO**	**FY 2023 Total**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Cost To Complete**	**Total Cost**
9999: *Congressional Adds*	0.000	0.000	5.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	5.000
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Congressional Add.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022
Congressional Add: Sonobuoy capabilities research	0.000	5.000
FY 2021 Accomplishments: N/A		
FY 2022 Plans: Support Congressional Add efforts.		
Congressional Adds Subtotals	0.000	5.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• RDTEN/0604261N/3224: *High Altitude ASW*	3.837	3.876	4.230	-	4.230	4.146	4.168	4.226	4.295	Continuing	Continuing

Remarks

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Navy			Date: April 2022
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604261N / *Acoustic Search Sensors*	Project (Number/Name) 9999 / *Congressional Adds*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies and Analysis	Various	Various : Various	0.000	0.000		4.780	Jun 2022	0.000		-		0.000	0.000	4.780	-
		Subtotal	0.000	0.000		4.780		0.000		-		0.000	0.000	4.780	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Spt	WR	NAWCAD : PATUXENT RIVER, MD	0.000	0.000		0.220	Jun 2022	0.000		-		0.000	0.000	0.220	-
		Subtotal	0.000	0.000		0.220		0.000		-		0.000	0.000	0.220	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		5.000		0.000		-		0.000	0.000	5.000	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 9999 / *Congressional Adds*

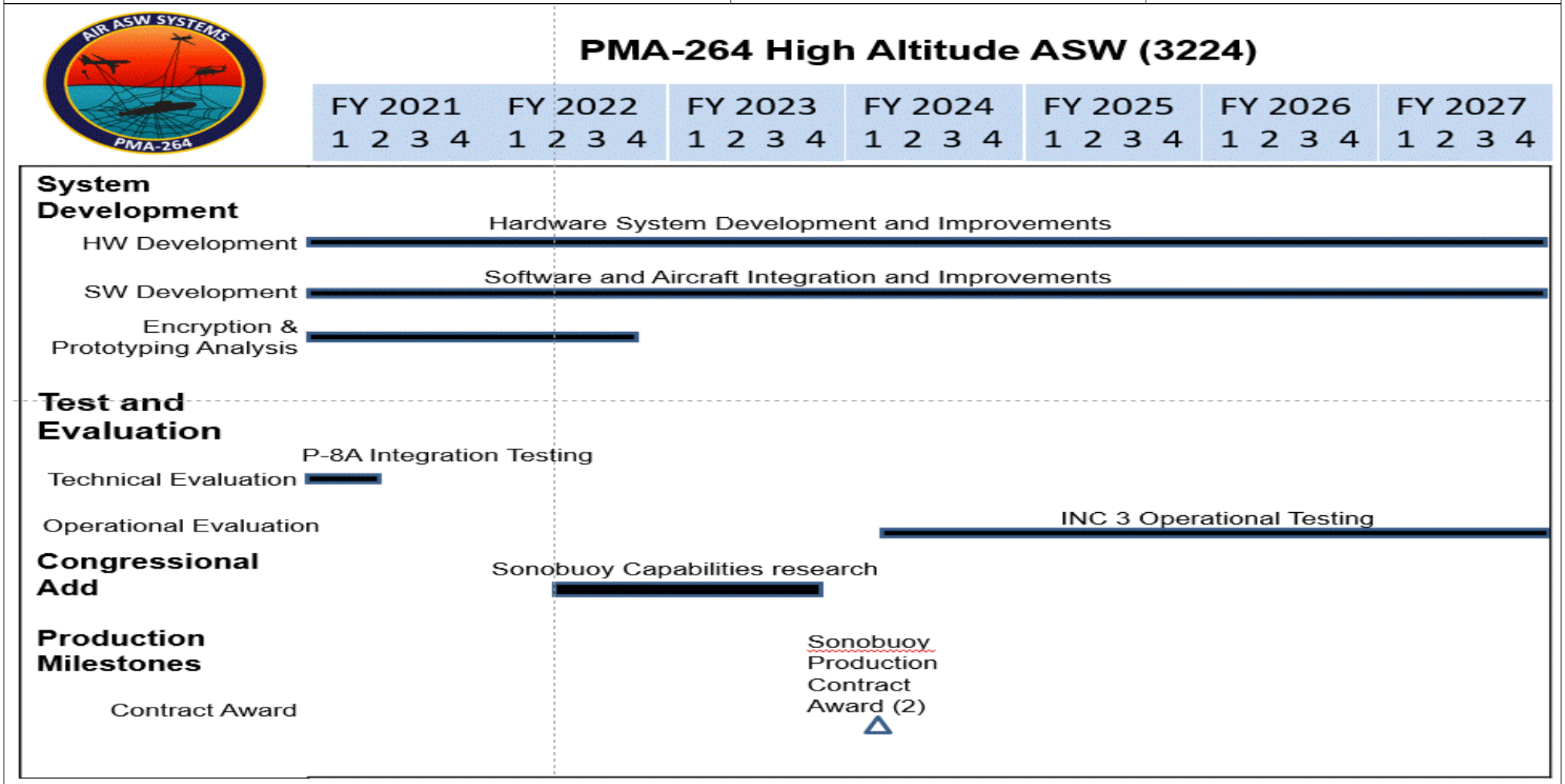

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Navy		Date: April 2022
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 9999 / *Congressional Adds*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj: 3224 High Altitude ASW				
Page/Group/Row: Hardware Development: Hardware System Development	1	2021	4	2027
Page/Group/Row: Software Development: Aircraft Software Development/Integration	1	2021	4	2027
Page/Group/Row: Encryption Analysis: Encryption Analysis & Prototyping	1	2021	4	2022
Test & Evaluation: Technical Evaluation: INC 2 Integration Testing	1	2021	2	2021
Test & Evaluation: Operational Evaluation: INC 3 Operational Testing	1	2024	4	2027
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