Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy											Date: May 2021	
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 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**Cost To Complete**	**Total Cost**
Total Program Element	593.550	45.792	47.182	46.066	-	46.066	-	-	-	-	-	-
0480: *ASW Sensors & Proc*	468.627	41.967	43.215	42.190	-	42.190	-	-	-	-	-	-
3224: *High Altitude ASW*	124.923	3.825	3.967	3.876	-	3.876	-	-	-	-	-	-

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	47.013	47.182	48.049	-	48.049
Current President's Budget	45.792	47.182	46.066	-	46.066
Total Adjustments	-1.221	0.000	-1.983	-	-1.983
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.221	0.000			
• Rate/Misc Adjustments	0.000	0.000	-1.983	-	-1.983

Change Summary Explanation

Funding:
FY20--$1.221M SBIR
FY22--$1.983M Miscellaneous Rate Adjustments

Technical: Not applicable.

Schedule:

Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Navy	Date: May 2021
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*

0480 Schedule 1. Delay of Next Gen MAC Data Collection and Analysis, the Next Gen MAC System of Systems by three quarters, causing a one year delay in delivery to the Fleet. The merge of P-8A ECP-6 and ECP-7 accelerates the start of MAC-E DT and OT, by one year. Additionally, MAC-E System of Systems Software Development and COD and MAC-E AOFP Software Development and COD will extend after FY22 to align with revised MAC-E DT period.

0480 Schedule 2. Schedule updated to reflect the new strategy for releasing software in a periodic manner into the platform baseline as opportunity allows.

3224 Schedule. N/A

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy									Date: May 2021			
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 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**Cost To Complete**	**Total Cost**
0480: *ASW Sensors & Proc*	468.627	41.967	43.215	42.190	-	42.190	-	-	-	-	-	-
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 FY20-FY26 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 2020**	**FY 2021**	**FY 2022 Base**	**FY 2022 OCO**	**FY 2022 Total**
Title: APB System Qualification Test/Fleet Release for P-3C. Rapid Capability Insertion (RCI)/Fleet Release for P-8A	11.728	9.102	7.890	0.000	7.890
Articles:	-	-	-	-	-
FY 2021 Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Continue software development and AAEMP for P-8A as opportunity allows. Continue MAC FITs for P-8A squadrons. ***FY 2022 Base Plans:*** Continue software development and AAEMP for P-8A as opportunity allows. Continue MAC FITs for P-8A squadrons. ***FY 2022 OCO Plans:*** N/A ***FY 2021 to FY 2022 Increase/Decrease Statement:*** The FY 2022 decrease reflects a reduction in software development & MAC FITs support.					
Title: Multi-static Active Coherent (MAC) ***Articles:*** ***FY 2021 Plans:*** Continue MAC-E software development/integration into the P-8A ECP-7 AOFP software. MAC-E software includes, but is not limited to: MAC-E/ADAR Controller, Likelihood Ratio Tracker, Atlantis, and Active System Performance Estimate Computer Tool. Conduct MAC-E/SSQ-125A development tests. ***FY 2022 Base Plans:*** Begin MAC-E AOFP Corrections of Deficiency (COD) as a result of the integration and testing of the ECP-7 AOFP software into the P-8A platform system of systems. Continue conducting MAC-E/SSQ-125A development tests. Begin Next Gen MAC data collection and analysis and software development efforts. ***FY 2022 OCO Plans:*** N/A ***FY 2021 to FY 2022 Increase/Decrease Statement:*** The FY 2022 Increase funds the continuation of the MAC-E software development/integration into the P-8A ECP-7 AOFP software.	30.239 125	34.113 130	34.300 130	0.000 -	34.300 130
Accomplishments/Planned Programs Subtotals	41.967	43.215	42.190	0.000	42.190

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• OPN/4048: *Sonobuoys - AN/SSQ-125 (Multistatic Coherent Source)*	113.025	89.300	51.508	-	51.508	-	-	-	-	-	-

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 2022 Navy			Date: May 2021
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 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 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	-	-	-
Prior year Prod Dev no longer funded in the FYDP	Various	VARIOUS : VARIOUS	19.905	0.000		0.000		0.000		-		0.000	-	-	-
Software Development	C/CPIF	Boeing : Huntington Beach, CA	11.008	13.373	Dec 2019	12.600	Dec 2020	12.560	Dec 2021	-		12.560	-	-	-
Software Development	WR	NAWCAD : PATUXENT RIVER, MD	42.361	6.036	Dec 2019	5.225	Dec 2020	5.280	Dec 2021	-		5.280	-	-	-
Software Development	SS/CPIF	LOCKHEED MARTIN : MANASSAS VA	15.322	2.500	Dec 2019	3.568	Dec 2020	3.520	Dec 2021	-		3.520	-	-	-
Software Development	Various	VARIOUS : VARIOUS	35.945	7.330	Dec 2019	8.775	Dec 2020	8.734	Dec 2021	-		8.734	-	-	-
		Subtotal	151.388	29.239		30.168		30.094		-		30.094	-	-	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Studies & Analysis	Various	VARIOUS : VARIOUS	23.457	2.156	Dec 2019	2.678	Dec 2020	2.328	Dec 2021	-		2.328	-	-	-
Technical Data	WR	NAWCAD : PATUXENT RIVER, MD	17.061	0.432	Dec 2019	0.350	Dec 2020	0.352	Dec 2021	-		0.352	-	-	-
Training	WR	NAWCAD : PATUXENT RIVER, MD	9.097	2.587	Dec 2019	2.574	Dec 2020	2.404	Dec 2021	-		2.404	-	-	-
		Subtotal	49.615	5.175		5.602		5.084		-		5.084	-	-	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy			Date: May 2021
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 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Eval	Various	VARIOUS : VARIOUS	39.043	3.506	Dec 2019	3.572	Dec 2020	3.520	Dec 2021	-		3.520	-	-	-
		Subtotal	39.043	3.506		3.572		3.520		-		3.520	-	-	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Eng Spt	Various	VARIOUS : VARIOUS	47.634	1.293	Dec 2019	1.175	Dec 2020	1.012	Dec 2021	-		1.012	-	-	-
Contractor Eng Spt	C/CPFF	NAVMAR APPLIED SCIENCES CORP : WARMINSTER, PA	9.590	1.173	Dec 2019	1.203	Dec 2020	1.032	Dec 2021	-		1.032	-	-	-
Government Eng Spt	WR	NAWCAD : PATUXENT RIVER, MD	99.168	0.380	Dec 2019	0.344	Dec 2020	0.304	Dec 2021	-		0.304	-	-	-
Eng & Tech Spt Srvc (NON-FFRDC)	Various	VARIOUS : VARIOUS	61.303	1.201	Dec 2019	1.151	Dec 2020	1.144	Dec 2021	-		1.144	-	-	-
Mgt & Prof SptT Srvc (FFRDC)	Various	VARIOUS : VARIOUS	10.018	0.000		0.000		0.000		-		0.000	-	-	-
Prior Years Mgmt Svcs no longer funded in the FYDP	Various	VARIOUS : VARIOUS	0.868	0.000		0.000		0.000		-		0.000	-	-	-
		Subtotal	228.581	4.047		3.873		3.492		-		3.492	-	-	N/A

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	468.627	41.967		43.215		42.190		-		42.190	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 0480 / *ASW Sensors & Proc*

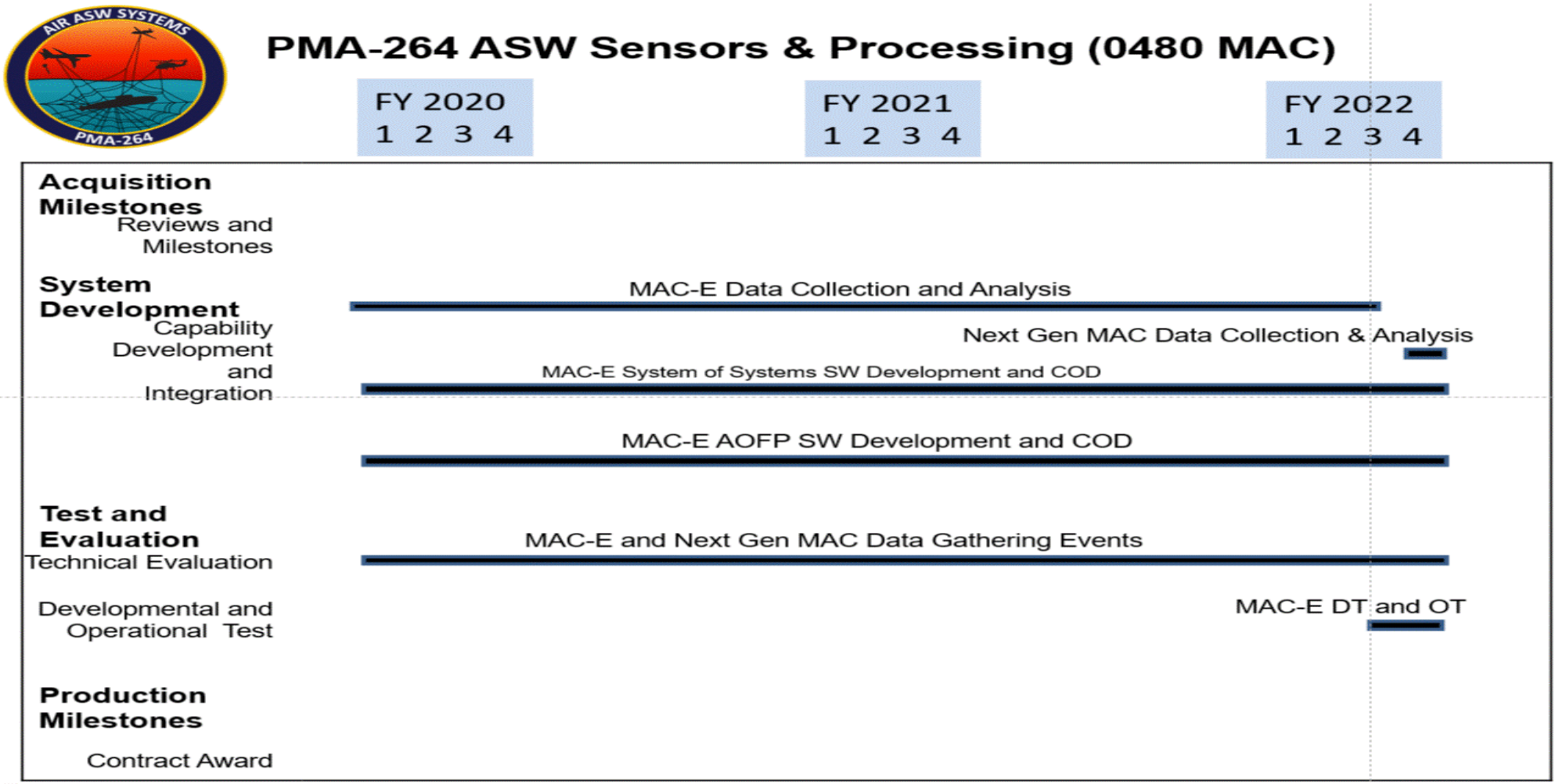

Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 0480 / *ASW Sensors & Proc*

PMA-264 ASW Sensors & Processing (0480 APB)

	FY 2020				FY 2021				FY 2022			
	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones												
System Development SW Development	System Development/ Engineering Measurement											
Test and Evaluation Technical Evaluation												
Fleet Introduction Training	Fleet Introduction Training											

Note: Schedule updated to reflect the new strategy for releasing software in a periodic manner into the platform baseline as opportunity allows.

Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy		Date: May 2021
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				
System Development: Capability Development and Integration: MAC-E Data Collection & Analysis	1	2020	3	2022
System Development: Next Gen MAC Data Collection & Analysis	4	2022	4	2022
System Development: MAC-E System of Systems Software Development and COD	1	2020	4	2022
System Development: MAC-E AOFP S/W Development and COD	1	2020	4	2022
Test & Evaluation: Technical Evaluation: MAC-E & Next Gen MAC Data Gathering Events	1	2020	4	2022
Test & Evaluation: Developmental and Operational Test: MAC-E Operational Test	3	2022	4	2022
Proj: 0480 ASW Sensors & Processors - Advanced Product Builds (APB)				
System Development: Software Development: System Development/Engineering Measurement	1	2020	4	2022
Fleet Introduction Training: Fleet Intro Trng	1	2020	4	2022

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy			Date: May 2021
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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
3224: *High Altitude ASW*	124.923	3.825	3.967	3.876	-	3.876	-	-	-	-	-	-
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. FY20-FY26 activities include continued 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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Title: High Altitude Enablers	3.825	3.967	3.876	0.000	3.876
Articles:	-	-	-	-	-
FY 2021 Plans: Continue improved sonobuoys capability in support of P-8 Inc 2. Continue digital telemetry/encryption requirements analysis.					
FY 2022 Base Plans: Continue improved sonobuoys capability in support of P-8 Inc 2. Continue digital telemetry/encryption requirements analysis.					
FY 2022 OCO Plans: N/A					
FY 2021 to FY 2022 Increase/Decrease Statement: Slight decrease in FY 2022 reduces improved sonobuoy capabilities support.					
Accomplishments/Planned Programs Subtotals	3.825	3.967	3.876	0.000	3.876

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
• OPN/4048: *Sonobuoys - All Types*	313.554	303.493	249.121	-	249.121	-	-	-	-	-	-

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2022 Navy		Date: May 2021
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 FY20-FY26. 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-FY21 integrates the cyber solution into prototypes. FY22-FY26 supports the transition of cyber protection to production.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy			Date: May 2021
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 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Development	C/CPFF	VARIOUS : VARIOUS	3.750	1.031	Nov 2019	0.800	Nov 2020	1.243	Nov 2021	-		1.243	-	-	-
Prior year Prod Dev no longer funded in the FYDP	Various	VARIOUS : VARIOUS	44.280	0.000		0.000		0.000		-		0.000	-	-	-
Primary Hdw Development	C/CPFF	FLIGHTLINE : VICTOR NY	0.000	0.000		1.000	Nov 2020	1.202	Nov 2021	-		1.202	-	-	-
INC 3 A/C Software Integration	C/CPFF	BOEING : SEATTLE WA	2.868	1.245	Nov 2019	1.000	Nov 2020	0.860	Nov 2021	-		0.860	-	-	-
		Subtotal	50.898	2.276		2.800		3.305		-		3.305	-	-	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 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	-	-	-
		Subtotal	35.380	0.000		0.000		0.000		-		0.000	-	-	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Eval	Various	VARIOUS : VARIOUS	6.897	0.754	Nov 2019	0.549	Nov 2020	0.000	Nov 2021	-		0.000	-	-	-
		Subtotal	6.897	0.754		0.549		0.000		-		0.000	-	-	N/A

Remarks

FY22-FY26 supports the transition of cyber protection to production.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Navy			Date: May 2021
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 2020 Cost	FY 2020 Award Date	FY 2021 Cost	FY 2021 Award Date	FY 2022 Base Cost	FY 2022 Base Award Date	FY 2022 OCO Cost	FY 2022 OCO Award Date	FY 2022 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Eng Spt	Various	VARIOUS : VARIOUS	3.674	0.199	Nov 2019	0.148	Nov 2020	0.145	Nov 2021	-		0.145	-	-	-
Government Eng Spt	WR	NAWCAD : PATUXENT RIVER, MD	24.485	0.596	Nov 2019	0.470	Nov 2020	0.426	Nov 2021	-		0.426	-	-	-
Prior Year Mngmt Svcs no longer funded in the FYDP	Various	VARIOUS : VARIOUS	3.589	0.000		0.000		0.000		-		0.000	-	-	-
		Subtotal	31.748	0.795		0.618		0.571		-		0.571	-	-	N/A

	Prior Years	FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	124.923	3.825		3.967		3.876		-		3.876	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 3224 / *High Altitude ASW*

PMA-264 High Altitude ASW (3224)

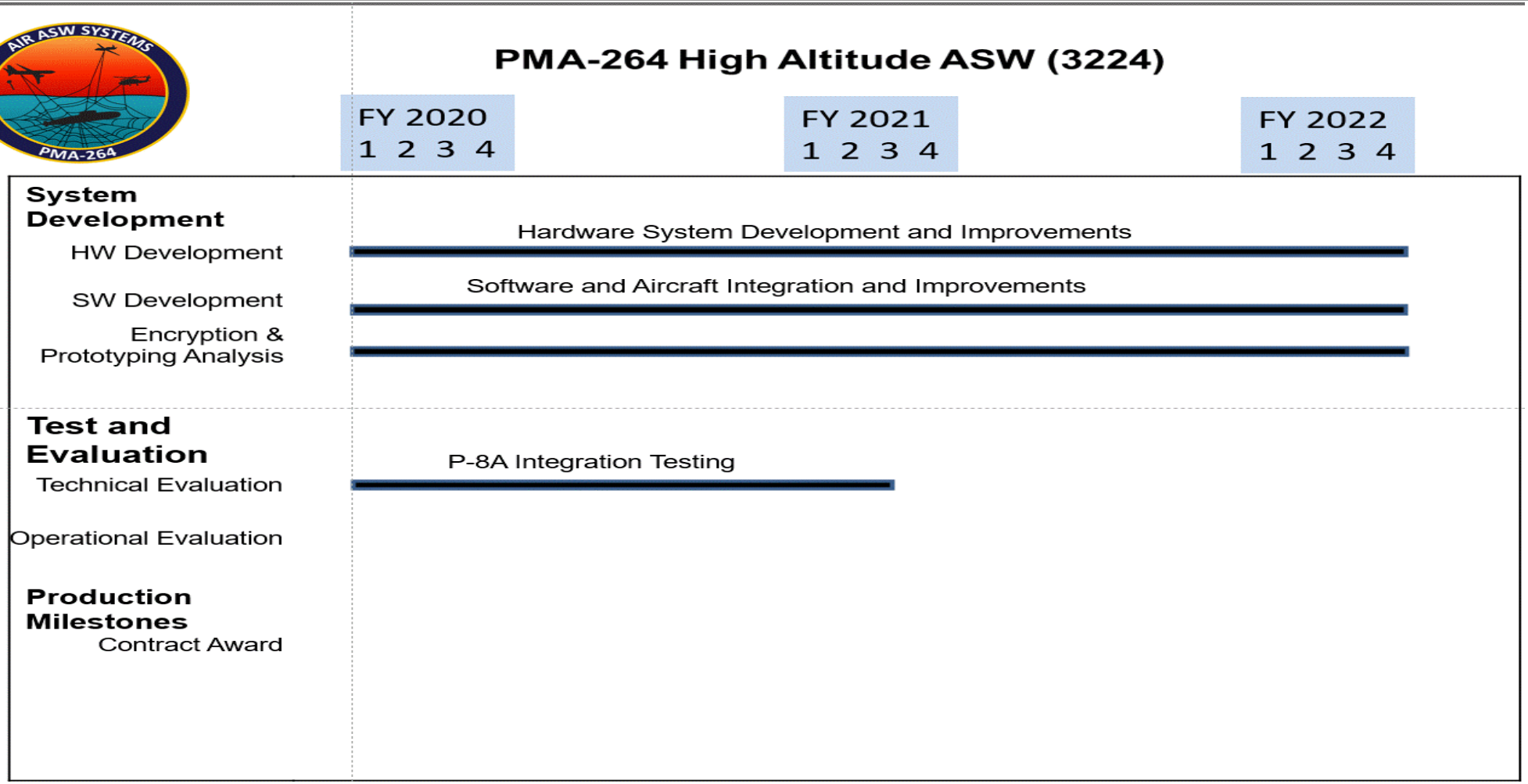

Exhibit R-4A, RDT&E Schedule Details: PB 2022 Navy		Date: May 2021
Appropriation/Budget Activity 1319 / 5	**R-1 Program Element (Number/Name)** PE 0604261N / *Acoustic Search Sensors*	**Project (Number/Name)** 3224 / *High Altitude ASW*

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	2020	4	2022
System Development: Software Development: Aircraft Software Development/ Integration	1	2020	4	2022
System Development: Encryption Analysis: Encryption Analysis & Prototyping	1	2020	4	2022
Test & Evaluation: Technical Evaluation: INC 2 Integration Testing	1	2020	2	2021