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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0603907C / <i>Sea Based X-Band Radar (SBX)</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	1,072.458	147.241	164.668	177.868	-	177.868	196.952	176.633	162.632	162.578	Continuing	Continuing
MX46: <i>Sea Based X-Band Radar Development Support</i>	1,032.617	141.567	158.689	171.486	-	171.486	189.655	169.275	155.807	155.204	Continuing	Continuing
MD40: <i>Program-Wide Support</i>	39.841	5.674	5.979	6.382	-	6.382	7.297	7.358	6.825	7.374	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Increase from Fiscal Year (FY) 2023 to FY 2024 provides for increased cost of fuel and resupply for increased number of days at sea, increased cost of radome fabric materials, and increased cost of a planned in-port maintenance period.

A. Mission Description and Budget Item Justification

The Sea Based X-Band Radar (SBX) is an advanced X-Band Radar that provides the capability for mid-course acquisition, tracking, discrimination, and hit-assessment of missile threats. The SBX radar is mounted on a mobile, ocean-going, semi-submersible platform, enabling it to cover any region of the globe. The SBX supports the Missile Defense System Homeland Defense mission by tracking and discriminating sophisticated Intercontinental Ballistic Missile threats.

The SBX operates at sea for Missile Defense System flight and ground test participation or in an active, operational status when indications and warnings signal the need for enhanced discrimination. The SBX is located in a Pacific port when not required at sea. The SBX maintains vessel certifications for operations at sea as well as software compatibility with the Missile Defense System.

B. Program Change Summary (\$ in Millions)

	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	147.241	164.668	174.934	-	174.934
Current President's Budget	147.241	164.668	177.868	-	177.868
Total Adjustments	0.000	0.000	2.934	-	2.934
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustment	0.000	0.000	2.934	-	2.934

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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation/Budget Activity
0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 4:
Advanced Component Development & Prototypes (ACD&P)

R-1 Program Element (Number/Name)
PE 0603907C / *Sea Based X-Band Radar (SBX)*

Change Summary Explanation

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Missile Defense Agency										Date: March 2023		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)				Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
MX46: Sea Based X-Band Radar Development Support	1,032.617	141.567	158.689	171.486	-	171.486	189.655	169.275	155.807	155.204	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Increase from Fiscal Year (FY) 2023 to FY 2024 provides for the increased cost of fuel and resupply for increased number of days at sea, increased cost of radome fabric materials, and increased cost of a planned in-port maintenance period.

A. Mission Description and Budget Item Justification

This project provides developmental operations and support of the Sea Based X-Band Radar (SBX) and its three major sub-systems: the self-propelled vessel; the X-Band Radar (XBR); and the communications network. Note: the In-Flight Interceptor Communications System was removed in 2023. Developmental operations and support activities include operation and sustainment of the vessel, developmental operation and sustainment of the XBR, limited XBR software support, and vessel and shore side security. The FY 2024 budget reflects the continued development required to deliver Missile Defense System enhanced discrimination capability.

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

	FY 2022	FY 2023	FY 2024
Title: Vessel Operations and Support	54.307	63.297	68.237
Articles:	-	-	-
Description: Vessel Operations and Support provides for sustainment of the SBX vessel for full operations and ensures readiness for operational contingencies, provides for resupply of SBX, underway maintenance and annual surveys at sea. The SBX participates in Missile Defense System ground tests and flight tests per the Integrated Master Test Plan (IMTP). This effort also provides force protection for SBX, maintenance repair, air charter transportation, and supply vessel charters.			
Specific and/or unique accomplishments to each FY are as follows:			
FY 2023 Plans: - See above.			
FY 2024 Plans: - See above.			
FY 2023 to FY 2024 Increase/Decrease Statement:			

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2022	FY 2023	FY 2024
Increase from FY 2023 to FY 2024 provides for increased cost of fuel, increased Military Sealift Command support, and vessel resupply cost due to inflation, based on additional days at sea.				
<p>Title: XBR Operations and Support</p> <p align="right">Articles:</p> <p>Description: This effort operates and sustains the XBR at full operations, maintaining limited software sustainment for system capability with the Missile Defense System and fields additional XBR capability to the Warfighter with the Missile Defense System capability increment. This effort also provides precision track, discrimination, and hit assessment for engagement support in Missile Defense System ground tests and flight tests per the approved IMTP. Operate at sea for Homeland Defense, including recurring routine maintenance and testing.</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2023 Plans: - See above.</p> <p>FY 2024 Plans: - See above.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: N/A</p>		51.667 -	66.439 -	66.518 -
<p>Title: XBR Radome Replacement</p> <p align="right">Articles:</p> <p>Description: This effort funds the X-Band Radar (XBR) radome replacement to remedy identified adhesion failures of the external layers and localized seam adhesion failure, to include evidence of water and mold intrusion. Replacement makes possible the continuation of SBX Homeland Defensive Operations through 2035 or longer. This radome replacement effort is expected to complete in 2025.</p> <p>FY 2023 Plans: - Complete in-port evaluation and path finding activities to plan installation in 2026.</p> <p>FY 2024 Plans: - Complete fabrication of the multi-layer material, cutting into pieces and continue building up the radome envelope.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement:</p>		16.002 -	22.828 -	26.288 -

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2022	FY 2023	FY 2024
Increase from FY 2023 to FY 2024 provides for increased cost of radome fabric materials.				
Title: Vessel in-Port Maintenance/Upgrades		14.591	6.125	10.443
		Articles:	-	-
<p>Description: Perform required maintenance to achieve annual surveys of vessel power, propulsion, communications and safety equipment and U.S. Coast Guard Certifications of vessel safety procedures, process controls, records and crew training/proficiency. The in-port period will conduct maintenance on major vessel components that require industrial assistance for rigging, specialized tools and skills, cleaning and repair of ballast and fuel tanks, scaffolding for access to part of the vessel that are hard to reach at sea and large area preservation. The work will include non-destructive testing of critical hull structure for special surveys of high stress areas for the safe operation of the vessel and to ensure SBX readiness for operational missions.</p> <p>FY 2023 Plans: - See above.</p> <p>FY 2024 Plans: - See above.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Increase from FY 2023 to FY 2024 provides for in-port preparation (purchase of repair materials, mobilization of scaffolding, office trailers for shipyard administration, purchase of consumable supplies to support industrial work) and shipyard execution (labor, trucks, forklifts, cranes, workboats, air compressors, generators and American Bureau of Shipping surveyors).</p>				
Title: XBR in-Port Maintenance/Upgrades		5.000	0.000	0.000
		Articles:	-	-
<p>Description: Perform in depth XBR maintenance that is not achievable while deployed at sea due to on-going operations. Perform technical refresh of XBR equipment to include digital network switches, control equipment, network appliances, global positioning system and critical cybersecurity testing and upgrades.</p> <p>FY 2023 Plans: - See above.</p> <p>FY 2024 Plans: - See above.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement:</p>				

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024
N/A			
Accomplishments/Planned Programs Subtotals	141.567	158.689	171.486

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

Line Item	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
• 0603882C: <i>Ballistic Missile Defense Midcourse Defense Segment</i>	707.632	689.018	903.633	-	903.633	852.567	906.634	930.538	875.198	Continuing	Continuing
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	250.123	230.502	239.159	-	239.159	212.191	233.877	242.623	251.226	Continuing	Continuing
• 0603891C: <i>Special Programs - MDA</i>	443.503	316.977	552.888	-	552.888	496.365	451.156	411.698	381.138	Continuing	Continuing
• 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	556.914	589.374	554.201	-	554.201	574.275	585.966	598.896	582.156	Continuing	Continuing
• 0603898C: <i>Ballistic Missile Defense Joint Warfighter Support</i>	50.261	50.269	48.248	-	48.248	49.164	50.445	51.542	52.859	Continuing	Continuing
• 0603904C: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	44.188	49.367	50.549	-	50.549	56.624	58.020	59.193	60.615	Continuing	Continuing
• 0604879C: <i>Ballistic Missile Defense Sensor Test</i>	77.428	88.326	111.049	-	111.049	90.697	103.885	154.905	127.807	Continuing	Continuing

Remarks

D. Acquisition Strategy

The SBX is contractor operated and maintained through a variety of contracts between the Navy and Missile Defense Agency (MDA). SBX-1 Vessel Management, Offshore Supply Vessel (OSV), and Security contracts are managed by Military Sealift Command. The SBX radar is operated and maintained on contracts managed by MDA.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support
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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
XBR Radome Replacement - Radome Replacement	SS/CPFF	RAYTHEON : VARIOUS	12.741	16.002	Jan 2022	22.828	Feb 2023	26.288	Nov 2023	-		26.288	Continuing	Continuing	Continuing
Subtotal			12.741	16.002		22.828		26.288		-		26.288	Continuing	Continuing	N/A

Remarks
In accordance with the Financial Management Regulation cost category definitions, some items have transferred to appropriate cost categories.

Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Vessel Operations and Support - Air Charter	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	0.000	1.050	Oct 2021	1.079	Oct 2022	1.324	Oct 2023	-		1.324	Continuing	Continuing	Continuing
Vessel Operations and Support - Force Protection	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	18.563	5.850	Oct 2021	6.011	Oct 2022	6.222	Oct 2023	-		6.222	Continuing	Continuing	Continuing
Vessel Operations and Support - Fuel	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	86.146	8.500	Oct 2021	12.342	Oct 2022	13.602	Oct 2023	-		13.602	Continuing	Continuing	Continuing
Vessel Operations and Support - Navy Program Management Office	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	13.469	3.571	Oct 2021	4.930	Oct 2022	6.539	Oct 2023	-		6.539	Continuing	Continuing	Continuing
Vessel Operations and Support - Navy Transition Office	MIPR	U.S. Navy : AL	5.732	0.000		0.000		0.000		-		0.000	0.000	5.732	0.000
Vessel Operations and Support - Operational	MIPR	DOD - USN - MILITARY SEALIFT	82.819	13.769	Oct 2021	17.181	Oct 2022	18.457	Oct 2023	-		18.457	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Missile Defense Agency												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
0400 / 4				PE 0603907C / Sea Based X-Band Radar (SBX)				MX46 / Sea Based X-Band Radar Development Support							
Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Vessel (OSV Resupply)		COMMAND (MSC) : VA													
Vessel Operations and Support - SBX Operations & Support (Vessel)	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	246.924	21.567	Oct 2021	21.754	Oct 2022	22.093	Oct 2023	-		22.093	Continuing	Continuing	Continuing
Vessel Operations and Support - SBX Vessel Maintenance	MIPR	Tote : HI/NJ	36.963	0.000		0.000		0.000		-		0.000	0.000	36.963	0.000
Vessel Operations and Support - Vessel Mission Integration	C/CPIF	Gryphon Tech. : AL/ HI	77.234	0.000		0.000		0.000		-		0.000	0.000	77.234	0.000
XBR Operations and Support - Civilian Salaries/ Travel	Allot	MDA : Various	3.366	1.339	Oct 2021	1.399	Oct 2022	1.564	Oct 2023	-		1.564	Continuing	Continuing	Continuing
XBR Operations and Support - Contract Support Services	C/CPFF	Various : Various	2.493	0.685	Oct 2021	1.017	Oct 2022	0.602	Oct 2023	-		0.602	Continuing	Continuing	Continuing
XBR Operations and Support - Contract Support Services - Engineering	C/CPFF	PARSONS GOVERNMENT SERVICES INC. : CA	0.000	1.444	Oct 2021	1.140	Oct 2022	0.771	Oct 2023	-		0.771	Continuing	Continuing	Continuing
XBR Operations and Support - FFRDC - MIT	MIPR	MASSACHUSETTS INSTITUTE OF TECHNOLOGY : Various	0.000	0.250	Jun 2022	0.000		0.000		-		0.000	0.000	0.250	0.000
XBR Operations and Support - Mission Integration	C/CPIF	MANTECH : Various	7.302	10.863	Nov 2021	10.682	Nov 2022	10.404	Nov 2023	-		10.404	Continuing	Continuing	Continuing
XBR Operations and Support - Network And Infrastructure Services	C/CPAF	JACOBS TECHNOLOGY INC. : VARIOUS	1.294	0.734	Jan 2022	0.446	Mar 2023	0.460	Jan 2024	-		0.460	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Missile Defense Agency												Date: March 2023			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
0400 / 4				PE 0603907C / Sea Based X-Band Radar (SBX)				MX46 / Sea Based X-Band Radar Development Support							
Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
XBR Operations and Support - SBX Communications Support	SS/CPIF	Boeing : AL/HI	19.825	3.580	Jan 2022	0.000		0.000		-		0.000	0.000	23.405	0.000
XBR Operations and Support - SBX Satellite Communications Terminal Install	MIPR	DOD - USN - NAVAL INFORMATION WARFARE CENTER (NIWC) PACIFIC : Various	0.000	3.237	Jun 2022	0.000		0.000		-		0.000	0.000	3.237	0.000
XBR Operations and Support - UARC -JHU/APL	SS/CPFF	JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY LLC, THE : MD	0.000	0.000		0.361	Mar 2023	0.000		-		0.000	0.000	0.361	0.000
XBR Operations and Support - X-Band Radar O&S (CLS) - DREX Switch	SS/CPFF	RAYTHEON : Various	0.000	0.000		0.000		3.000	Oct 2023	-		3.000	Continuing	Continuing	Continuing
XBR Operations and Support - XBR Operations & Support	SS/CPFF	RAYTHEON : Various	417.746	29.535	Dec 2021	51.394	Nov 2022	49.717	Dec 2023	-		49.717	Continuing	Continuing	Continuing
Vessel in-Port Maintenance/Upgrades - Sea Based X-Band Radar Vessel Management-In-port Maintenance	MIPR	DOD - USN - MILITARY SEALIFT COMMAND (MSC) : VA	0.000	14.591	Oct 2021	6.125	Oct 2022	10.443	Oct 2023	-		10.443	Continuing	Continuing	Continuing
XBR in-Port Maintenance/Upgrades - Communication Switch Refresh	SS/CPFF	RAYTHEON : Various	0.000	5.000	Dec 2021	0.000		0.000		-		0.000	0.000	5.000	0.000
Subtotal			1,019.876	125.565		135.861		145.198		-		145.198	Continuing	Continuing	N/A
Remarks															
N/A															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support
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Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			-	-		-		-		-		-	-	-	N/A

Remarks
N/A

Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			-	-		-		-		-		-	-	-	N/A

Remarks
N/A

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1,032.617	141.567	158.689	171.486	-	171.486	Continuing	Continuing	N/A

Remarks
Award Dates reflect date of first obligation. Additional obligations may incrementally occur throughout the year.

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support
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	Significant Event Complete ▲		Milestone Decision Complete ★		Element Test Complete ◆		System Level Test Complete ●		Complete Activity ◆			
	Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○		Planned Activity ◇			
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028					
GTI-08a (N/I) (Missile Defense System Ground Test)				◆								
FTX-45			▲									
GTD-08a (N/I) (Missile Defense System Ground Test)			◆									
FTX-26 (OT) (SN, OT Target Only Flight Test)					△							
GTI-08b (N/I)				◇								
FTG-12 (GM, DT/OT Intercept Flight Test)						△						
GTD-08b (N/I)							◇					
In-port Maintenance								◇	◇			
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)									◇			
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)										◇		
In Port Maintenance										◇	◇	
GTD-13 (N/I) (Missile Defense System Ground Test)										◇		
GTI-14 Sprint 1 (N/I)											◇	
FTG-16 (GM, DT Intercept Flight Test)												△
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)											◇	
FTT-22 (TH, DT/OT Intercept Flight Test)												△
FTG-17 (GM, DT/OT Intercept Flight Test)												△
GTD-14 (N/I) (Missile Defense System Ground Test)												◇
In port Maintenance												◇
FTG-18 (DT/OT)												△
GTI-16 Sprint 1 (N/I)												◇

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MX46 / Sea Based X-Band Radar Development Support

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTI-08a (N/I) (Missile Defense System Ground Test)	3	2022	3	2022
FTX-45	4	2022	4	2022
GTD-08a (N/I) (Missile Defense System Ground Test)	1	2023	1	2023
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2023	4	2023
GTI-08b (N/I)	4	2023	4	2023
FTG-12 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024
GTD-08b (N/I)	2	2024	2	2024
In-port Maintenance	4	2024	1	2025
GTI-13 Sprint 1 (N/I) (Missile Defense System Ground Test)	1	2025	1	2025
GTI-13 Sprint 2 (N/I) (Missile Defense System Ground Test)	3	2025	3	2025
In Port Maintenance	4	2025	1	2026
GTD-13 (N/I) (Missile Defense System Ground Test)	4	2025	4	2025
GTI-14 Sprint 1 (N/I)	4	2026	4	2026
FTG-16 (GM, DT Intercept Flight Test)	2	2027	2	2027
GTI-14 (N/I) Sprint 2 (Missile Defense System Ground Test)	2	2027	2	2027
FTT-22 (TH, DT/OT Intercept Flight Test)	3	2027	3	2027
FTG-17 (GM, DT/OT Intercept Flight Test)	4	2027	4	2027
GTD-14 (N/I) ((Missile Defense System Ground Test)	4	2027	4	2027
In port Maintenance	4	2027	1	2028
FTG-18 (DT/OT)	3	2028	3	2028
GTI-16 Sprint 1 (N/I)	4	2028	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MD40 / Program-Wide Support
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
MD40: Program-Wide Support	39.841	5.674	5.979	6.382	-	6.382	7.297	7.358	6.825	7.374	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency program elements (PEs) each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.

A. Mission Description and Budget Item Justification

PWS contains non-headquarters management costs in support of MDA functions and activities across the entire Missile Defense System. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the Missile Defense System as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes personnel to support global deployments performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations worldwide. Other MDA wide costs include: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations across multiple geographic locations; commercial and ancillary facility services; management of all facility aspects regardless of lifecycle stage; supplies and maintenance; compliance with statutory environmental requirements; data and unified communications support; materiel and readiness and central property management of equipment; Facilities Sustainment, Restoration and Modernization (FSRM) program (formerly Real Property Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.

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

	FY 2022	FY 2023	FY 2024
Title: Program Wide Support	5.674	5.979	6.382
Articles:	-	-	-
Description: PWS contains non-headquarters management costs in support of MDA functions and activities across the entire Missile Defense System. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the Missile Defense System as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes personnel to support global deployments performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations worldwide. Other MDA wide costs include: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations across multiple geographic locations; commercial and ancillary facility services; management of all facility aspects regardless of lifecycle stage; supplies and maintenance; compliance with statutory environmental requirements; data and unified communications support; materiel and readiness and central property			

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MD40 / Program-Wide Support

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2022	FY 2023	FY 2024
management of equipment; Facilities Sustainment, Restoration and Modernization (FSRM) program (formerly Real Property Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.			
FY 2023 Plans: - SEE ABOVE.			
FY 2024 Plans: - SEE ABOVE.			
FY 2023 to FY 2024 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	5.674	5.979	6.382

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

N/A

Remarks

D. Acquisition Strategy

The acquisition strategy for MDA Consolidated Support consists of contract actions to industry for: a) Engineering and technical support; b) studies, analyses, and evaluations; and c) management and professional services to MDA functional organizations and program offices. With a focus to achieve Small Business goals, MDA is leveraging existing contracts and will competitively award new contracts to meet MDA's Fiscal Years 2020-2030 Advisory and Assistance Services support.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MD40 / Program-Wide Support
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Support (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Army Corps of Engineers : Various	0.000	0.000		1.743	Nov 2022	2.265	Nov 2023	-		2.265	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	VENTURI, INC. : Various	0.000	0.000		4.236	Nov 2022	4.117	Nov 2023	-		4.117	Continuing	Continuing	Continuing
Program Wide Support - Prior year no longer funded in the FYDP	Various	Various : Various	9.154	0.000		0.000		0.000		-		0.000	0.000	9.154	0.000
Program Wide Support - Program Wide Support - Agency Operations Management	Various	Various Multi: : AK, AL, CA, CO, VA	2.212	0.145	Jul 2022	0.000		0.000		-		0.000	0.000	2.357	0.000
Program Wide Support - Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	MDA Multi : AK, AL, CA, CO, VA	1.606	0.000		0.000		0.000		-		0.000	0.000	1.606	0.000
Program Wide Support - Program Wide Support - Agency Operations and Support Other Agency Services (MIPRs)	MIPR	Various Multi: : AK, AL, CA, CO, VA	26.498	5.395	Nov 2021	0.000		0.000		-		0.000	0.000	31.893	0.000
Program Wide Support - Program Wide Support - Agency Operations and Support Services (FFP)	C/FFP	Various Multi: : VA, WA	0.371	0.134	May 2022	0.000		0.000		-		0.000	0.000	0.505	0.000
Subtotal			39.841	5.674		5.979		6.382		-		6.382	Continuing	Continuing	N/A

Remarks
N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / Sea Based X-Band Radar (SBX)	Project (Number/Name) MD40 / Program-Wide Support
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Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			-	-		-		-		-		-	-	-	N/A

Remarks
N/A

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	39.841	5.674	5.979	6.382	-	6.382	Continuing	Continuing	N/A

Remarks
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Missile Defense Agency						Date: March 2023													
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0603907C / <i>Sea Based X-Band Radar (SBX)</i>						Project (Number/Name) MD40 / <i>Program-Wide Support</i>							
Significant Event Complete ▲		Milestone Decision Complete ★		Element Test Complete ◆		System Level Test Complete ●				Complete Activity ◆									
Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○				Planned Activity ◇									
						FY 2022		FY 2023		FY 2024		FY 2025		FY 2026		FY 2027		FY 2028	
MD40 Program-Wide Support						◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0603907C / <i>Sea Based X-Band Radar (SBX)</i>	Project (Number/Name) MD40 / <i>Program-Wide Support</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2022	4	2028