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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Missile Defense Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>
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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	469.778	64.245	77.428	88.326	-	88.326	91.495	98.146	103.010	145.810	Continuing	Continuing
MT11: <i>BMDs Radars Test</i>	448.632	61.208	74.272	85.119	-	85.119	88.275	95.133	99.441	141.243	Continuing	Continuing
MD40: <i>Program Wide Support</i>	21.146	3.037	3.156	3.207	-	3.207	3.220	3.013	3.569	4.567	Continuing	Continuing

**Program MDAP/MAIS Code:** 362

**Note**

Increase from FY 2022 to FY 2023 is in accordance with the current Integrated Master Test Plan (IMTP).

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

The Missile Defense Agency executes a robust test program that includes flight and ground tests to support both strategic and regional Missile Defense System (MDS) capabilities against medium- and long-range threats. The Sensors elements of the MDS Integrated Master Test Plan are intended to demonstrate the integrated missile defense capabilities under development to ensure the capabilities delivered to the Warfighter are operationally effective, suitable, and survivable. The Sensors Test Program Element specifically includes the planning, execution, and analysis of flight and ground tests, as well as the associated infrastructure to provide data required for Missile Defense technical Capability Declarations.

The Sensors Test program supports integration of radar improvements into the MDS, mid and far-term Discrimination Improvements, and Operational Test and Evaluation of the theater/regional and strategic MDS architecture.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	64.245	77.428	0.000	-	0.000
Current President's Budget	64.245	77.428	88.326	-	88.326
Total Adjustments	0.000	0.000	88.326	-	88.326
• 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			
• Missile Defeat and Defense Enhancement	0.000	0.000	0.000	-	0.000
• Other Adjustment	0.000	0.000	88.326	-	88.326

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Missile Defense Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> / BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	

**Change Summary Explanation**

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

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**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Missile Defense Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MT11 / <i>BMDS Radars Test</i>
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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
MT11: <i>BMDS Radars Test</i>	448.632	61.208	74.272	85.119	-	85.119	88.275	95.133	99.441	141.243	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Increase from FY 2022 to FY 2023 is in accordance with the current Integrated Master Test Plan (IMTP).

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

This project provides activities for planning, analysis, and execution of Missile Defense System (MDS) flight test events, including pre- and post-test ground testing such as Digital and Hardware-in-the-Loop (HWIL) System Pre-Mission Tests (SPMTs) and System Post-Flight Reconstruction (SPFR). Sensors Test provides planning, analysis, and execution in accordance with the Ground Test Concept of Operations (CONOPS) supporting the Ground Test level of effort concept for MDS system level ground tests identified in the IMTP. Test infrastructure funding provides for HWIL labs, Mission Operation Center/Mission Support Center (MOC/MSC), and program management required to operate and maintain a flight and ground test capability.

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

	FY 2021	FY 2022	FY 2023
<b>Title:</b> Test Resources	50.655	65.569	72.075
<b>Articles:</b>	-	-	-
<b>Description:</b> Test Resources efforts include configuration and maintenance of Sensors HWILs for use in ground test execution (MDS testing and element interoperability developmental testing) and in MDS flight test execution pre-mission testing, and technical oversight to all MDS system level activities with Sensors participation. It also includes conducting the detailed test event planning and design, integration, and execution for all MDS ground test campaigns. Test Resources provides support for evolving Objective Simulation Framework (OSF) (software upgrades) integration into the MDS HWIL ground test execution and flight test execution. Beginning in FY 2021, it also provides a Level of Effort support to MDS Ground Tests in accordance with the MDS Integrated Master Test Plan (IMTP) and the new Ground Test CONOPS.			
Specific and/or unique accomplishments to each FY are as follows:			
<b>FY 2022 Plans:</b> - SEE ABOVE			
<b>FY 2023 Plans:</b> - SEE ABOVE			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Missile Defense Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MT11 / <i>BMDS Radars Test</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Increase from FY 2022 to FY 2023 is in accordance with the current IMTP.			
<b>Title:</b> Flight Test Execution	10.553	8.703	13.044
<b>Articles:</b>	-	-	-
<b>Description:</b> Flight Test Execution includes test planning, pre-flight analysis, transportation of radars and MOC/MSC, test execution, and post-flight analysis for Sensors' participation in MDS flight tests in accordance with the MDS IMTP.			
Specific and/or unique accomplishments to each FY are as follows:			
<b>FY 2022 Plans:</b> - SEE ABOVE			
<b>FY 2023 Plans:</b> - SEE ABOVE			
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Increase from FY 2022 to FY 2023 is in accordance with the current IMTP.			
<b>Accomplishments/Planned Programs Subtotals</b>	61.208	74.272	85.119

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	259.605	254.962	231.134	-	231.134	250.028	274.705	276.254	257.575	Continuing	Continuing
• 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management &amp; Communication</i>	639.027	564.946	589.374	-	589.374	575.883	588.824	612.853	605.801	Continuing	Continuing
• 0603898C: <i>Ballistic Missile Defense Joint Warfighter Support</i>	49.261	50.594	50.269	-	50.269	51.849	55.960	56.488	54.980	Continuing	Continuing
• 0603904C: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	54.026	52.403	49.367	-	49.367	51.744	56.502	57.833	59.006	Continuing	Continuing
• 0603907C: <i>Sea Based X-Band Radar (SBX)</i>	120.063	147.241	164.668	-	164.668	174.934	215.367	198.956	179.622	Continuing	Continuing

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**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Missile Defense Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MT11 / <i>BMDS Radars Test</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 0603914C: <i>Ballistic Missile Defense Test</i>	364.994	389.156	367.824	-	367.824	363.963	421.261	476.991	490.176	Continuing	Continuing
• 0604672C: <i>Homeland Defense Radar-Hawaii</i>	133.000	75.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	208.000
• 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>	135.088	133.335	75.120	-	75.120	103.451	95.712	71.715	76.316	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Test & Evaluation projects use multiple existing development and MDS test contracts depending on the system(s) involved in the testing.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Missile Defense Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MT11 / <i>BMDS Radars Test</i>
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<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
<b>Subtotal</b>			-	-		-		-		-		-	-	-	N/A

**Remarks**  
N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Test Resources - AN/TPY-2, SBX, UEUR & CD OSF Integration & Infrastructure, Sys Test Lab	C/CPAF	Raytheon : MA	80.402	30.819	Nov 2020	37.393	Nov 2021	41.543	Nov 2022	-		41.543	Continuing	Continuing	Continuing
Test Resources - Civilians/Travel	Allot	MDA : AL/VA	4.435	5.332	Oct 2020	4.415	Oct 2021	4.582	Oct 2022	-		4.582	Continuing	Continuing	Continuing
Test Resources - Communications Development - OGA	MIPR	Secretary of the Air Force (SAF) : NCR	1.516	0.000		0.000		0.000		-		0.000	0.000	1.516	0.000
Test Resources - Communications and Networks	C/CPAF	JACOBS TECHNOLOGY INC. : CO	0.000	3.059	Sep 2021	0.000		0.000		-		0.000	0.000	3.059	0.000
Test Resources - Contract Support Services	C/CPFF	Various : Various	3.668	3.408	Oct 2020	3.682	Oct 2021	0.000		-		0.000	0.000	10.758	0.000
Test Resources - Contract Support Services - Test Support	C/CPFF	MP SOLUTIONS, LLC : Various	0.000	0.000		0.000		4.191	Nov 2022	-		4.191	Continuing	Continuing	Continuing
Test Resources - Cyber Win10 Implementation - MDDC Lab Analysis Infrastructure	C/IDIQ	Analytical Services, Inc. : AL	0.825	0.000		0.000		0.000		-		0.000	0.000	0.825	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Missile Defense Agency												Date: April 2022			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)				Project (Number/Name)					
0400 / 4						PE 0604879C / Ballistic Missile Defense Sensor Test				MT11 / BMDS Radars Test					
Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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
Test Resources - Cybersecurity - BGTC and SBIRS	C/IDIQ	Northrop Grumman Space & Mission System : CO	1.600	0.000		0.000		0.000		-		0.000	0.000	1.600	0.000
Test Resources - Cybersecurity - Tactical Communication Environment Segment (TCES)	MIPR	DOD - USN - NAVAL INFORMATION WARFARE SYSTEMS COMMAND (NAVWAR) : CA	0.190	0.000		0.000		0.000		-		0.000	0.000	0.190	0.000
Test Resources - General Infrastructure and OGA Support	Various	Various : AL, NM	3.293	3.935	Nov 2020	6.983	Nov 2021	8.095	Nov 2022	-		8.095	Continuing	Continuing	Continuing
Test Resources - LRDR OSF Integration & Infrastructure, Sys Test Lab	C/CPFF	Lockheed Martin : NJ	3.561	4.102	Nov 2020	13.096	Nov 2021	13.664	Nov 2022	-		13.664	Continuing	Continuing	Continuing
Test Resources - UEWR SSF Integration & Infrastructure, Sys Test Lab	C/FPIF	deciBel : AL	14.655	0.000		0.000		0.000		-		0.000	0.000	14.655	0.000
Flight Test Execution - AN/TPY-2, SBX UEWR & CD MDS Level Testing	C/CPAF	Raytheon : MA	127.023	3.327	Mar 2021	3.284	Nov 2021	12.264	Nov 2022	-		12.264	Continuing	Continuing	Continuing
Flight Test Execution - Agency Level Testing Support	C/CPAF	L-3 Communications : AL	17.000	0.000		0.000		0.000		-		0.000	0.000	17.000	0.000
Flight Test Execution - FT Security, Site Activation & Deployments MDS Level Testing	Various	Various : AI, CO, HI, Wake Island	41.278	1.846	Aug 2021	0.000		0.387	Nov 2022	-		0.387	Continuing	Continuing	Continuing
Flight Test Execution - LRDR MDS Level Testing	SS/TBD	Lockheed Martin : NJ	4.988	5.380	Sep 2021	5.419	Nov 2021	0.000		-		0.000	0.000	15.787	0.000

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Missile Defense Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MT11 / <i>BMDS Radars Test</i>
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<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Flight Test Execution - OGA Sensor Research & Development	MIPR	Secretary of the Air Force : NCR	4.500	0.000		0.000		0.000		-		0.000	0.000	4.500	0.000
Flight Test Execution - System-Level Post Flight Reconstruction (SPFR)	MIPR	CCDC AVMC : AL	2.736	0.000		0.000		0.393	Nov 2022	-		0.393	Continuing	Continuing	Continuing
Flight Test Execution - UEWR/CD MDS Level Testing	C/FPIF	deciBel : AL	1.152	0.000		0.000		0.000		-		0.000	0.000	1.152	0.000
Ground Test Execution - AN/TPY-2, SBX, UEWR/CD MDS Level Testing	C/CPAF	Raytheon : MA	125.324	0.000		0.000		0.000		-		0.000	0.000	125.324	0.000
Ground Test Execution - Long Range Discrimination MDS Level Testing	C/CPFF	Lockheed Martin : NJ	10.486	0.000		0.000		0.000		-		0.000	0.000	10.486	0.000
<b>Subtotal</b>			448.632	61.208		74.272		85.119		-		85.119	Continuing	Continuing	N/A

**Remarks**  
N/A

<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
<b>Subtotal</b>			-	-		-		-		-		-	-	-	N/A

**Remarks**  
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	
<b>Project Cost Totals</b>		448.632	61.208	74.272	85.119	-	85.119	Continuing	Continuing	N/A

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2023 Missile Defense Agency							<b>Date:</b> April 2022			
<b>Appropriation/Budget Activity</b> 0400 / 4			<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>			<b>Project (Number/Name)</b> MT11 / <i>BMDS Radars Test</i>				
	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	

**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 2023 Missile Defense Agency** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MT11 / <i>BMDS Radars Test</i>
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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 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027					
FTM-44 (AEGIS 5.1, DT Intercept Flight Test)	▲											
GTI-21 Sprint 1 (JEON) TH 4.0 (MDS Ground Test)		◆	◆	◆								
TH CTV-01 (LTPO, DT Interceptor Only Flight Test)			▲									
SM CTV-04 (AEGIS 5.1, DT Interceptor Only Flight Test)			▲									
GTI-ISR (21) (MDS Ground Test)			◆									
FTX-43 (OTHER, DT Tracking Exercise Flight Test)			▲									
SICO -09-1							◇					
SICO-09-2							◇					
FTT-21 (TH, DT Intercept Flight Test)			△									
GTI-08a (N/I) (MDS Ground Test)					◇							
FTX-26 (OT) (SN, OT Target Only Flight Test)					△							
GTI-09 Sprint 1 (E/C) (MDS Ground Test)					◇							
SICO-8a-1 (MDS Ground Test)					◇							
FTX-45					△							
GTD-08a (N/I) (MDS Ground Test)							◇					
GTI-09 Sprint 2 (E/C) (MDS Ground Test)							◇					
SICO-09-3 Ground Test							◇					
SICO-08a-02							◇					
FTT-25 (TH, DT/OT Intercept Flight Test)								△				
SICO 9-4 Ground Test								◇				
GTI-08b (N/I)								◇				
GTI-ISR (23) (MDS Ground Test)								◇				
FTG-12 (GM, DT/OT Intercept Flight Test)								△				
GTI-ASI (24) (MDS Ground Test)									◇			



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**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Missile Defense Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MT11 / <i>BMDS Radars Test</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FTM-44 (AEGIS 5.1, DT Intercept Flight Test)	1	2021	1	2021
GTI-21 Sprint 1 (JEON) TH 4.0 (MDS Ground Test)	2	2021	4	2021
TH CTV-01 (LTPO, DT Interceptor Only Flight Test)	4	2021	4	2021
SM CTV-04 (AEGIS 5.1, DT Interceptor Only Flight Test)	4	2021	4	2021
GTI-ISR (21) (MDS Ground Test)	1	2022	1	2022
FTX-43 (OTHER, DT Tracking Exercise Flight Test)	1	2022	1	2022
SICO -09-1	1	2023	1	2023
SICO-09-2	1	2023	1	2023
FTT-21 (TH, DT Intercept Flight Test)	2	2022	2	2022
GTI-08a (N/I) (MDS Ground Test)	3	2022	3	2022
FTX-26 (OT) (SN, OT Target Only Flight Test)	4	2022	4	2022
GTI-09 Sprint 1 (E/C) (MDS Ground Test)	4	2022	4	2022
SICO-8a-1 (MDS Ground Test)	4	2022	4	2022
FTX-45	4	2022	4	2022
GTD-08a (N/I) (MDS Ground Test)	1	2023	1	2023
GTI-09 Sprint 2 (E/C) (MDS Ground Test)	2	2023	2	2023
SICO-09-3 Ground Test	2	2023	2	2023
SICO-08a-02	2	2023	2	2023
FTT-25 (TH, DT/OT Intercept Flight Test)	3	2023	3	2023
SICO 9-4 Ground Test	3	2023	3	2023
GTI-08b (N/I)	4	2023	4	2023
GTI-ISR (23) (MDS Ground Test)	4	2023	4	2023

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Missile Defense Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MT11 / <i>BMDS Radars Test</i>
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Events	Start		End	
	Quarter	Year	Quarter	Year
FTG-12 (GM, DT/OT Intercept Flight Test)	4	2023	4	2023
GTI-ASI (24) (MDS Ground Test)	2	2024	2	2024
FTX-28 E2 (TH, DT/OT Tracking Exercise Flight Test)	2	2024	2	2024
FTX-28 E1 (TH, DT/OT Tracking Exercise Flight Test)	2	2024	2	2024
FTX-28 E3 (TH, DT/OT Tracking Exercise Flight Test)	2	2024	2	2024
GTI-13 Sprint 1 (N/I) (MDS Ground Test)	1	2025	1	2025
GTI-13 Sprint 2 (N/I) (MDS Ground Test)	3	2025	3	2025
GTI-ISR (25) (MDS Ground Test)	2	2025	2	2025
GTI-12 Sprint 1 (E/C) (MDS Ground Test)	3	2025	3	2025
GTD-13 (N/I) (MDS Ground Test)	4	2025	4	2025
GTI-12 Sprint 2 (E/C) (MDS Ground Test)	1	2026	1	2026
GTD-10 (E/C) (MDS Ground Test)	2	2026	2	2026
GTI-10 (E/C) (MDS Ground Test)	1	2026	1	2026
GTD-12 (E/C) (MDS Ground Test)	2	2026	2	2026
GTI-ASI (26) (MDS Ground Test)	3	2026	3	2026
TH CTV-03 (TH, DT Interceptor Only Flight Test)	4	2026	4	2026
GTI-ISR (27) (MDS Ground Test)	4	2027	4	2027
GTI-14 (N/I) Sprint 2 (MDS Ground Test)	2	2027	2	2027
FTG-16 (GM, DT Intercept Flight Test)	2	2027	2	2027
GTI-15 Sprint 1 (E/C) (MDS Ground Test)	3	2027	3	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) (MDS Ground Test)	4	2027	4	2027

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**Exhibit R-2A, RDT&E Project Justification:** PB 2023 Missile Defense Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>
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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
MD40: <i>Program Wide Support</i>	21.146	3.037	3.156	3.207	-	3.207	3.220	3.013	3.569	4.567	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency 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 MDS. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the MDS 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 2021	FY 2022	FY 2023
<b>Title:</b> Program Wide Support	3.037	3.156	3.207
<b>Articles:</b>	-	-	-
<b>Description:</b> PWS contains non-headquarters management costs in support of MDA functions and activities across the entire MDS. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the MDS 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,			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Missile Defense Agency		<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
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>FY 2022 Plans:</b> - SEE ABOVE.				
<b>FY 2023 Plans:</b> - SEE ABOVE.				
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> N/A				
<b>Accomplishments/Planned Programs Subtotals</b>		3.037	3.156	3.207
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b> N/A				

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2023 Missile Defense Agency **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>
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<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Program Wide Support - Agency Operations Management	C/CPFF	SYSTEMS ENGINEERING INC : AL	2.259	0.092	Jul 2021	0.112	Apr 2022	0.625	Dec 2022	-		0.625	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	YORKTOWN SYSTEMS GROUP, INC. : Multi: AL, VA	18.887	2.945	Jul 2021	3.044	Apr 2022	2.582	Dec 2022	-		2.582	Continuing	Continuing	Continuing
<b>Subtotal</b>			21.146	3.037		3.156		3.207		-		3.207	Continuing	Continuing	N/A

**Remarks**  
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
<b>Project Cost Totals</b>	21.146	3.037	3.156	3.207	-	3.207	Continuing	Continuing	N/A

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



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Missile Defense Agency		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2021	4	2027