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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Missile Defense Agency **Date:** March 2019

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 0604879C / <i>Ballistic Missile Defense Sensor Test</i>
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COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	212.951	88.840	77.405	105.530	-	105.530	114.698	99.088	112.943	96.526	Continuing	Continuing
MT11: <i>BMDS Radars Test</i>	204.445	85.489	74.499	101.053	-	101.053	109.323	94.467	107.374	91.815	Continuing	Continuing
MD40: <i>Program Wide Support</i>	8.506	3.351	2.906	4.477	-	4.477	5.375	4.621	5.569	4.711	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Increase from FY 2019 to FY 2020 provides Sensors' participation in Ballistic Missile Defense System (BMDS) ground and flight test in accordance with Integrated Master Test Plan (IMTP) 20.1.

A. Mission Description and Budget Item Justification

MDA Sensors executes a robust test program that includes flight and ground tests to support both strategic and regional BMDS capabilities against medium- and long-range threats. The Sensors elements of the Ballistic Missile Defense System (BMDS) Integrated Master Test Plan (IMTP) 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 and the associated infrastructure.

The Sensors Test program provides data required for the Technical Capability Declaration for European Phased Adaptive Approach (EPAA) Phase III Robust Intermediate Range Ballistic Missile (IRBM) Defense, Enhanced Homeland Defense, and Mid-term Discrimination Improvements. It supports Operational Test and Evaluation of the regional and strategic BMDS architecture.

The Sensors Test program supports Long Range Discrimination Radar (LRDR) integration into the BMDS, Ground Based Midcourse Defense Redesigned Kill Vehicle (RKV) developmental testing, mid and far-term Discrimination Improvements, and Operational Test and Evaluation of the theater/regional and strategic BMDS architecture.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Missile Defense Agency	Date: March 2019
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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 0604879C / <i>Ballistic Missile Defense Sensor Test</i>
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B. Program Change Summary (\$ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	101.839	81.001	77.654	-	77.654
Current President's Budget	88.840	77.405	105.530	-	105.530
Total Adjustments	-12.999	-3.596	27.876	-	27.876
• Congressional General Reductions	-3.000	-3.596			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	14.400	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-14.400	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Missile Defeat and Defense Enhancement	0.000	0.000	0.000	-	0.000
• Other Adjustment	-9.999	0.000	27.876	-	27.876

Change Summary Explanation

Decrease in FY 2018 from PB19 to PB20 reflects the enacted congressional adjustments to support a SM-3 Block IIA Missile Test. These funds were adjusted through an Above Threshold Reprogramming. Additional adjustment to support IMTP.

Decrease in FY 2019 from PB19 to PB20 reflects the enacted Congressional General Reduction.

Increase in FY 2020 from PB19 to PB20 provides flight and ground tests and sensor participation in accordance with IMTP 20.1.

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency **Date:** March 2019

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MT11 / <i>BMDS Radars Test</i>
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COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
MT11: <i>BMDS Radars Test</i>	204.445	85.489	74.499	101.053	-	101.053	109.323	94.467	107.374	91.815	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
Increase from FY 2019 to FY 2020 provides Sensor participation in Ballistic Missile Defense System (BMDS) ground and flight tests in accordance with the Integrated Master Test Plan (IMTP) 20.1.

A. Mission Description and Budget Item Justification

This project provides activities for planning, analysis, and execution of BMDS flight test events, including pre- and post-test ground testing such as Digital and Hardware-in-the-Loop (HWIL) Pre-Mission Tests (PMTs) and Post-Flight Reconstruction (PFR). Sensors Test provides planning, analysis, and execution for BMDS system level ground tests identified in the IMTP. Test infrastructure funding provides for HWIL labs 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 2018	FY 2019	FY 2020
<p>Title: Test Resources</p> <p style="text-align: right;">Articles:</p> <p>Description: Test Resources efforts include configuration and maintenance of Sensors HWILs for use in ground test execution (BMDS and element developmental testing) and in BMDS flight test execution pre-mission testing, and technical oversight to all BMDS system level activities with Sensors participation. It also includes conducting the detailed test event planning and design, integration, and execution for all BMDS flight and ground test campaigns. Test Resources provides support for evolving Objective Stimulation Framework (OSF) (software upgrades) integration into the BMDS HWIL ground test execution and flight test execution Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2019 Plans: - SEE ABOVE</p> <p>FY 2020 Plans: - SEE ABOVE</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: Increase from FY 2019 to FY 2020 provides for Sensors participation in BMDS flight and ground tests in accordance with the IMTP 20.1.</p>	16.703	19.312	27.851
	-	-	-
Title: Flight Test Execution	40.286	28.950	41.392

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Missile Defense Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MT11 / <i>BMDS Radars Test</i>

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020
<p align="right">Articles:</p> <p>Description: Flight Test Execution includes test planning, pre-flight analysis, transportation of radars, test execution, and post-flight analysis for Sensors' participation in BMDS flight tests in accordance with the BMDS IMTP. Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2019 Plans: - SEE ABOVE.</p> <p>FY 2020 Plans: - SEE ABOVE.</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: Increase from FY 2019 to FY 2020 provides for Sensors participation in BMDS flight tests in accordance with the IMTP 20.1.</p>	-	-	-
<p>Title: Ground Test Execution</p> <p align="right">Articles:</p> <p>Description: Ground Test Execution includes event planning, asset integration, execution and post-mission analysis for Sensors' participation in BMDS ground tests in accordance with the BMDS IMTP. Specific and/or unique accomplishments to each FY are as follows:</p> <p>FY 2019 Plans: - SEE ABOVE.</p> <p>FY 2020 Plans: - Plan and execute Sensors' participation in BMDS Ground Tests in accordance with IMTP and the new Ground Test Concept of Operations (CONOPS)</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: Increase from FY 2019 to FY 2020 provides for increased Sensors' participation in BMDS ground tests in accordance with the IMTP 20.1.</p>	28.500 -	26.237 -	31.810 -
Accomplishments/Planned Programs Subtotals	85.489	74.499	101.053

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

Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	290.289	385.375	283.487	-	283.487	296.098	263.681	276.092	351.607	Continuing	Continuing
• 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i>	449.985	507.817	564.206	-	564.206	534.988	502.581	525.742	535.636	Continuing	Continuing
• 0603898C: <i>Ballistic Missile Defense Joint Warfighter Support</i>	48.574	48.767	51.532	-	51.532	51.411	53.932	53.600	54.646	Continuing	Continuing
• 0603904C: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	51.905	58.125	56.161	-	56.161	57.446	58.574	61.144	62.339	Continuing	Continuing
• 0603907C: <i>Sea Based X-Band Radar (SBX)</i>	173.988	136.715	128.156	-	128.156	119.452	132.826	127.504	139.909	Continuing	Continuing
• 0603914C: <i>Ballistic Missile Defense Test</i>	406.806	515.897	395.924	-	395.924	417.946	335.481	451.723	405.136	Continuing	Continuing
• 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>	370.516	166.543	136.423	-	136.423	122.877	99.920	88.203	64.569	Continuing	Continuing
• 13999903: <i>Planning and Design, Defense Wide</i>	8.397	8.525	8.822	-	8.822	0.000	0.000	0.000	0.000	Continuing	Continuing
• D1400634: <i>Upgrade Early Warning Radar (UEWR), Clear AFS, AK</i>	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Remarks

D. Acquisition Strategy

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

E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Missile Defense Agency **Date:** March 2019

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MT11 / <i>BMDS Radars Test</i>
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Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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

Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 SSF Integration & Infrastructure, Sys Test Lab	SS/CPFF	Raytheon : MA	40.327	12.770	Dec 2017	13.269	Dec 2018	10.112	Nov 2019	-		10.112	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	Continuing	Continuing	Continuing
Test Resources - Cybersecurity - BGTC and SBIRS	C/IDIQ	Northrop Grumman Space & Mission System : CO	1.600	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test Resources - Cybersecurity - Tactical Communication Environment Segment (TCES)	MIPR	SPAWAR : CA	0.190	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Test Resources - LRDR SSF Integration & Infrastructure, Sys Test Lab	C/FFP	Lockheed Martin : NJ	0.000	0.000		1.973	Jan 2019	9.570	Jan 2020	-		9.570	Continuing	Continuing	Continuing
Test Resources - Test Resources- Civilians/ Travel	Allot	MDA : AL/VA	0.000	0.000		0.000		5.086	Oct 2019	-		5.086	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Missile Defense Agency **Date:** March 2019

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MT11 / <i>BMDS Radars Test</i>
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Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 - Test Resources- Contract Support Services	Various	Various : Various	0.000	0.000		0.000		3.083	Oct 2019	-		3.083	Continuing	Continuing	Continuing
Test Resources - UEWR SSF Integration & Infrastructure, Sys Test Lab	C/FPIF	deciBel : AL	10.722	3.933	Nov 2017	4.070	Nov 2018	0.000		-		0.000	Continuing	Continuing	Continuing
Flight Test Execution - AN/TPY-2 & SBX BMDS Level Testing	SS/CPAF	Raytheon : MA	83.745	25.595	Mar 2018	21.090	Mar 2019	41.392	Mar 2020	-		41.392	Continuing	Continuing	Continuing
Flight Test Execution - FT Security, Site Activation & Deployments	Various	Various : HI, CO, AL	18.001	13.507	Jan 2018	0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Flight Test Execution - LRDR BMDS Level Testing	SS/TBD	Lockheed Martin : NJ	0.000	0.032	Nov 2017	5.568	Jan 2019	0.000		-		0.000	Continuing	Continuing	Continuing
Flight Test Execution - UEWR/CD BMDS Level Testing	C/FPIF	deciBel : AL	0.000	1.152	Nov 2017	2.292	Nov 2018	0.000		-		0.000	Continuing	Continuing	Continuing
Ground Test Execution - AN/TPY-2, SBX, UEWR/CD BMDS Level Testing	SS/CPFF	Raytheon : MA	49.035	28.500	Feb 2018	26.237	Feb 2019	31.810	Feb 2020	-		31.810	Continuing	Continuing	Continuing
Subtotal			204.445	85.489		74.499		101.053		-		101.053	Continuing	Continuing	N/A

Remarks
N/A

Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Missile Defense Agency **Date:** March 2019

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MT11 / <i>BMDS Radars Test</i>
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Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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			

Remarks
N/A

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	204.445	85.489	74.499	101.053	-	101.053	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 2020 Missile Defense Agency **Date:** March 2019

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) 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 ◆		System Level Test Planned ○		Planned Activity ◇	
	Significant Event Planned △		Milestone Decision Planned ☆		Element Test Planned ◇		System Level Test Planned ○		Complete Activity ◆		System Level Test Planned ○		Planned Activity ◇	
	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018	FY 2018
FS 17-4 (DT Tracking Exercise Flight Test)	▲													
L200 (AEGIS 4.0.3)	◆													
FTM-29 (AEGIS 5.1, Intercept Flight Test)	▲													
GT-18 Sprint 1 (JEON)	◆													
GTI-07b E/C (BMDS Ground Test)	◆	◆												
FTX-35 (TH, Target Only Flight Test)		▲												
GT-18 Sprint 2			◆											
FTI-03 (OTA, OT Intercept Flight Test)				△										
FTG-11 (OT) (GM, OT Intercept Flight Test)					△									
FTT-23 (TH, DT Intercept Flight Test)						△								
FTX-23 (AEGIS 5.1, DT Target Only Flight Test)						△								
GTI-07c (N/P) (BMDS Ground Test)							◇							
FTM-44 (AEGIS 5.1, DT Intercept Flight Test)								△						
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)									△					
FTO-03 (OTA, OT Intercept Flight Test)									△					
GTI-08 (N/P) (BMDS Ground Test)								◇	◇					
GTI-09 Sprint 1 (E/C) (BMDS Ground Test)									◇	◇				
GTD-08 (N/P) (BMDS Ground Test)										◇				
FTX-26 (OT) (SN, OT Target Only Flight Test)											△			
FTP-28 (LTPO, OT Intercept Flight Test)											△			
GTI-09 Sprint 2 (E/C) (BMDS Ground Test)										○				
GTD-09 (E/C) (BMDS Ground Test)											○			
GTI-10 Sprint 1 (E/C) (BMDS Ground Test)												○		
FTX-28 E1 (TH, DT Target Only Flight Test)													△	

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Missile Defense Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MT11 / <i>BMDS Radars Test</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FS 17-4 (DT Tracking Exercise Flight Test)	1	2018	1	2018
L200 (AEGIS 4.0.3)	1	2018	1	2018
FTM-29 (AEGIS 5.1, Intercept Flight Test)	2	2018	2	2018
GT-18 Sprint 1 (JEON)	2	2018	2	2018
GTI-07b E/C (BMDS Ground Test)	2	2018	3	2018
FTX-35 (TH, Target Only Flight Test)	3	2018	3	2018
GT-18 Sprint 2	4	2018	4	2018
FTI-03 (OTA, OT Intercept Flight Test)	1	2019	1	2019
FTG-11 (OT) (GM, OT Intercept Flight Test)	2	2019	2	2019
FTT-23 (TH, DT Intercept Flight Test)	4	2019	4	2019
FTX-23 (AEGIS 5.1, DT Target Only Flight Test)	4	2019	4	2019
GTI-07c (N/P) (BMDS Ground Test)	1	2020	1	2020
FTM-44 (AEGIS 5.1, DT Intercept Flight Test)	2	2020	2	2020
FTM-30 (AEGIS 5.1, DT/OT Intercept Flight Test)	4	2020	4	2020
FTO-03 (OTA, OT Intercept Flight Test)	4	2020	4	2020
GTI-08 (N/P) (BMDS Ground Test)	4	2020	1	2021
GTI-09 Sprint 1 (E/C) (BMDS Ground Test)	1	2021	2	2021
GTD-08 (N/P) (BMDS Ground Test)	2	2021	2	2021
FTX-26 (OT) (SN, OT Target Only Flight Test)	3	2021	3	2021
FTP-28 (LTPO, OT Intercept Flight Test)	3	2021	3	2021
GTI-09 Sprint 2 (E/C) (BMDS Ground Test)	3	2021	3	2021
GTD-09 (E/C) (BMDS Ground Test)	1	2022	1	2022

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Missile Defense Agency **Date:** March 2019

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MT11 / <i>BMDS Radars Test</i>
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Events	Start		End	
	Quarter	Year	Quarter	Year
GTI-10 Sprint 1 (E/C) (BMDS Ground Test)	2	2022	2	2022
FTX-28 E1 (TH, DT Target Only Flight Test)	3	2022	3	2022
FTX-28 E2 (TH, DT Target Only Flight Test)	3	2022	3	2022
FTX-28 E3 (TH, DT Target Only Flight Test)	3	2022	3	2022
GTI-11 Sprint 1 (N/P) (BMDS Ground Test)	3	2022	3	2022
GTI-10 Sprint 2 (E/C) (BMDS Ground Test)	4	2022	4	2022
FTG-17 (GM, DT Intercept Flight Test)	1	2023	1	2023
GTI-11 Sprint 2 (N/P) (BMDS Ground Test)	1	2023	1	2023
GTD-10 (E/C) (BMDS Ground Test)	2	2023	2	2023
GTI-11 Sprint 3 (N/P) (BMDS Ground Test)	3	2023	3	2023
FTT-24 (TH, DT Intercept Flight Test)	3	2023	3	2023
GTD-11 (N/P) (BMDS Ground Test)	4	2023	1	2024
FTG-18 (GM, DT/OT Intercept Flight Test)	1	2024	1	2024
GTI-12 Sprint 1 (E/C) (BMDS Ground Test)	2	2024	2	2024
GTI-13 Sprint 1 (N/P) (BMDS Ground Test)	3	2024	3	2024
GTI-12 Sprint 2 (E/C) (BMDS Ground Test)	4	2024	4	2024
FTG-19 (GM, DT/OT Intercept Flight Test)	1	2025	1	2025

Note

FY 2020 USFK JEON tests are funded in PE 0603914C BMD Test.

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>
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COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
MD40: <i>Program Wide Support</i>	8.506	3.351	2.906	4.477	-	4.477	5.375	4.621	5.569	4.711	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency PE's 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 BMDS. It Includes Government Civilians and Contract Support Services. This provides integrity and oversight of the BMDS 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. 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; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; 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 2018	FY 2019	FY 2020
Title: Program Wide Support	3.351	2.906	4.477
Articles:	-	-	-
Description: PWS contains non-headquarters management costs in support of MDA functions and activities across the entire BMDS. It Includes Government Civilians and Contract Support Services. This provides integrity and oversight of the BMDS 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. 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; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; 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 2019 Plans:			

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2018	FY 2019	FY 2020
- SEE ABOVE.				
FY 2020 Plans: - SEE ABOVE.				
FY 2019 to FY 2020 Increase/Decrease Statement: Increase from FY 2019 to FY 2020 reflects the PWS allocation on a pro-rata basis across multiple Agency PE's each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.				
Accomplishments/Planned Programs Subtotals		3.351	2.906	4.477
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				
E. Performance Metrics N/A				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Missile Defense Agency												Date: March 2019			
Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>					Project (Number/Name) MD40 / <i>Program Wide Support</i>						
Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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 Operations Management	Allot	Various : Multi: AL, VA	0.074	0.168	Jul 2018	0.044	Jul 2019	0.067	Jul 2020	-		0.067	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services (Reqn)	MIPR	Various : Multi: AL, VA	8.432	3.183	Aug 2018	2.862	Feb 2019	4.410	Jul 2020	-		4.410	Continuing	Continuing	Continuing
Subtotal			8.506	3.351		2.906		4.477		-		4.477	Continuing	Continuing	N/A
Remarks N/A															
			Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract				
Project Cost Totals			8.506	3.351	2.906	4.477	-	4.477	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 2020 Missile Defense Agency						Date: March 2019													
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</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 2018		FY 2019		FY 2020		FY 2021		FY 2022		FY 2023		FY 2024	
MD40 Program-Wide Support						◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇		◇◇◇◇	

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Missile Defense Agency		Date: March 2019
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604879C / <i>Ballistic Missile Defense Sensor Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2018	4	2024