

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2017 Missile Defense Agency **Date:** February 2016

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I 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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	60.048	83.597	83.250	-	83.250	87.346	100.132	100.073	86.937	Continuing	Continuing
MT11: <i>BMDS Radars Test</i>	-	60.048	79.782	78.430	-	78.430	82.876	94.753	94.691	82.095	Continuing	Continuing
MD40: <i>Program Wide Support</i>	-	0.000	3.815	4.820	-	4.820	4.470	5.379	5.382	4.842	Continuing	Continuing

**Program MDAP/MAIS Code:** 362

**Note**

Beginning in FY15, funding was realigned to the Ballistic Missile Defense Sensors Test Program Element 0604879C, Project MT11, from Ballistic Missile Defense Sensors Program Element 0603884C, Project MT11.

**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 (FY 2016-2018) supports EPAA Phase III Robust Long Range Ballistic Missile (IRBM) Defense, Enhanced Homeland Defense, Mid-term discrimination improvements and supports the IMTP for Operational Test and Evaluation of the regional and strategic BMDS architecture that will be fielded at the end of Calendar Year 2018 (CY 2018). Refer to R-4 for specific test events.

The Sensors test program (FY 2019-2021) will support Long Range Discrimination Radar (LRDR) integration into BMDS, GMD Redesigned Kill Vehicle (RKV), Far-term / Mid-term discrimination improvements and the IMTP for Operational Test and Evaluation of the theater/regional and strategic BMDS architecture that will be fielded at the end of Calendar Year 2021 (CY 2021). Refer to R-4 for specific test events.

MD40 Program-Wide Support (PWS) consists of essential non-headquarters management efforts providing integrated and efficient support to MDA functions and activities across the entire BMDS.

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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I 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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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	71.309	86.764	104.271	-	104.271
Current President's Budget	60.048	83.597	83.250	-	83.250
Total Adjustments	-11.261	-3.167	-21.021	-	-21.021
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-3.167			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-9.999	0.000			
• SBIR/STTR Transfer	-1.262	0.000			
• Other Adjustment	0.000	0.000	-21.021	-	-21.021

**Change Summary Explanation**

FY 2017 decrease reflects a schedule change to align with the Integrated Master Test Plan (IMTP).

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**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Missile Defense Agency **Date:** February 2016

<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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
MT11: <i>BMDS Radars Test</i>	-	60.048	79.782	78.430	-	78.430	82.876	94.753	94.691	82.095	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**  
The MT11 R-4/4A depicts only test events for which Sensors participation is planned. For a full listing of Ballistic Missile Defense System (BMDS) test events, see the R-4/4A in the BMDS Test and Evaluation Program Element (0603914C).

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

Activities in this project include:  
 -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)  
 -Planning, analysis, and execution of BMDS system ground tests  
 -Test infrastructure funding, including 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 2015	FY 2016	FY 2017
<p><b>Title:</b> Flight Test Execution</p> <p style="text-align: right;"><b>Articles:</b></p> <p><b>Description:</b> N/A</p> <p><b>FY 2015 Accomplishments:</b> N/A</p> <p><b>FY 2016 Plans:</b> -Plan and execute Sensors participation in BMDS Flight Tests in accordance with the BMDS Integrated Master Test Plan (IMTP)</p> <p><b>FY 2017 Plans:</b> -Plan and execute Sensors participation in BMDS Flight Tests in accordance with the BMDS Integrated Master Test Plan (IMTP)</p>	0.000	34.351	32.834
	-	-	-
<p><b>Title:</b> Ground Test Execution</p> <p style="text-align: right;"><b>Articles:</b></p> <p><b>Description:</b> N/A</p> <p><b>FY 2015 Accomplishments:</b></p>	0.000	24.592	27.686
	-	-	-

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Missile Defense Agency		<b>Date:</b> February 2016		
<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 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
N/A				
<b>FY 2016 Plans:</b> -Plan and execute Sensors participation in BMDS Ground Tests in accordance with the BMDS Integrated Master Test Plan (IMTP)				
<b>FY 2017 Plans:</b> -Plan and execute Sensors participation in BMDS Ground Tests in accordance with the BMDS Integrated Master Test Plan (IMTP)				
<b>Title:</b> Test Resources		0.000	20.839	17.910
		<b>Articles:</b> -	-	-
<b>Description:</b> N/A				
<b>FY 2015 Accomplishments:</b> N/A				
<b>FY 2016 Plans:</b> - Transferred from Element Test and Infrastructure accomplishment in FY 2016 -Continue to configure and maintain Sensors HWILs for use in Ground Test Execution (BMDS and element developmental testing) -Continue to configure and maintain Sensors HWILs for use in BMDS Flight Tests Execution Pre-Mission Testing -Continue to support evolving Single Stimulation Framework (SSF) (software upgrades) integration into the BMDS HWIL Ground Test Execution and Flight Test Execution Infrastructure				
<b>FY 2017 Plans:</b> -Decrease in FY 2017 due to reductions in Sensors HWILs for element developmental testing and reductions in support to evolving SSS/OSF integration into the BMDS HWIL Ground Test Execution infrastructure -Continue to configure and maintain Sensors HWILs for use in Ground Test Execution (BMDS and element developmental testing) -Continue to configure and maintain Sensors HWILs for use in BMDS Flight Tests Execution Pre-Mission Testing -Continue to support evolving Single Stimulation Framework (SSF)/Objective Stimulation Framework (OSF) (software upgrades) integration into the BMDS HWIL Ground Test Execution and Flight Test Execution Infrastructure				
<b>Title:</b> Ballistic Missile Defense System (BMDS) Level Testing		45.573	0.000	0.000
		<b>Articles:</b> -	-	-
<b>Description:</b> N/A				
<b>FY 2015 Accomplishments:</b>				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Missile Defense Agency		<b>Date:</b> February 2016
<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 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<p>-Planned for successful execution Sensors participation in BMDS Ground Tests in accordance with the BMDS Integrated Master Test Plan (IMTP): GTD-04e Part 2, GTI-06 Part 1, GTI-06 Part 2, GTD-06 Part 1a, GTI-06 P3, GTI-ISR 16</p> <p>-Planned for successful executed Sensors participation in BMDS Flight Tests in accordance with the BMDS IMTP: FTO-02 E1, FTO-02 E1a, FTO-02 E2, FTO-02 E2a, FTX-21, GM CTV-02+. FTT-18 was planned for execution in 1Q FY 2016. However, due to range and resource availability, the mission was not executed. Options are under review to reschedule this test in the FY 2017/2018 timeframe.</p> <p><b>FY 2016 Plans:</b> -FY 2016 Plans transferred to Flight Test Execution accomplishments and Ground Test Execution accomplishments</p> <p><b>FY 2017 Plans:</b> -FY 2017 Plans transferred to Flight Test Execution accomplishments and Ground Test Execution accomplishments</p>			
<p><b>Title:</b> Element Test and Infrastructure</p> <p><b>Description:</b> N/A</p> <p><b>FY 2015 Accomplishments:</b> -Configured and maintained Sensors HWILs for use in BMDS Ground Tests and element-level ground tests: GTI-06 Part 1, GTI-06 Part 2, GTI-06 Part 3, GTI-ISR 16, Enterprise Cyber Range Environment (ECRE) Cyber Testing - Configured and maintained Sensors HWILs for use in BMDS Flight Tests System Pre-Mission Testing: FTO-02 E1, FTO-02 E1a, FTO-02 E2, GM CTV-02+ - Supported evolving Single Stimulation Framework (SSF)/Objective Simulation Framework (OSF) (software upgrades) integration into the BMDS HWIL Ground Test Infrastructure</p> <p><b>FY 2016 Plans:</b> -FY 2016 plans transferred to Test Resources accomplishment</p> <p><b>FY 2017 Plans:</b> -FY 2017 plans transferred to Test Resources accomplishment</p>	<p><b>Articles:</b></p> <p>14.475</p> <p>-</p>	<p>0.000</p> <p>-</p>	<p>0.000</p> <p>-</p>
<b>Accomplishments/Planned Programs Subtotals</b>	60.048	79.782	78.430

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

<b>Line Item</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2017</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
			<b>Base</b>	<b>OCO</b>	<b>Total</b>						
• 0603179C: <i>Advanced C4ISR</i>	13.061	9.876	3.626	-	3.626	0.000	0.000	0.000	0.000	0	26.563

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**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Missile Defense Agency **Date:** February 2016

<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 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 0603884C: <i>Ballistic Missile Defense Sensors</i>	260.347	228.392	230.077	-	230.077	144.893	141.815	171.644	158.421	Continuing	Continuing
• 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management &amp; Communication</i>	420.516	429.853	439.617	-	439.617	413.198	432.763	454.601	462.065	Continuing	Continuing
• 0603898C: <i>Ballistic Missile Defense Joint Warfighter Support</i>	44.220	47.898	47.776	-	47.776	49.621	50.564	53.151	54.042	Continuing	Continuing
• 0603904C: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	53.972	47.939	54.750	-	54.750	53.894	55.524	58.100	59.029	Continuing	Continuing
• 0603907C: <i>Sea Based X-Band Radar (SBX)</i>	64.610	71.266	68.787	-	68.787	73.329	70.423	85.881	74.189	Continuing	Continuing
• 0603914C: <i>Ballistic Missile Defense Test</i>	354.414	281.740	293.441	-	293.441	337.537	322.334	346.134	351.933	Continuing	Continuing
• 0604873C: <i>Long Range Discrimination Radar (LRDR)</i>	49.606	137.564	162.012	-	162.012	310.347	76.843	98.874	102.320	Continuing	Continuing
• 13999903: <i>Planning and Design, Defense Wide</i>	38.704	0.000	8.233	-	8.233	8.397	8.525	8.822	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	0

**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 2017 Missile Defense Agency** **Date:** February 2016

<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 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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>			-	-		-		-		-		-	-	-	-

**Remarks**

N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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 - AN/TPY-2 & SBX FT	SS/CPFF	Raytheon : MA	0.000	0.000		21.426	Nov 2015	12.260	Nov 2016	-		12.260	Continuing	Continuing	Continuing
Flight Test Execution - FT Security, Site Activation & Deployments	Various	Various : HI, CO, AL	0.000	0.000		10.559	Nov 2015	10.202	Nov 2016	-		10.202	Continuing	Continuing	Continuing
Flight Test Execution - UEWR/CD FT	C/FPIF	deciBel : AL	0.000	0.000		2.366	Nov 2015	10.372	Nov 2016	-		10.372	Continuing	Continuing	Continuing
Ground Test Execution - AN/TPY-2 & SBX GT	SS/CPFF	Raytheon : MA	0.000	0.000		12.507	Nov 2015	13.714	Nov 2016	-		13.714	Continuing	Continuing	Continuing
Ground Test Execution - UEWR/CD GT	C/FPIF	deciBel : AL	0.000	0.000		12.085	Nov 2015	13.972	Nov 2016	-		13.972	Continuing	Continuing	Continuing
Test Resources - AN/TPY-2 & SBX SSF Integration & Infrastructure, Sys Test Lab	SS/CPFF	Raytheon : MA	0.000	0.000		16.190	Nov 2015	14.121	Nov 2016	-		14.121	Continuing	Continuing	Continuing
Test Resources - UEWR SSF Integration & Infrastructure, Sys Test Lab	C/FPIF	deciBel : AL	0.000	0.000		4.649	Nov 2015	3.789	Nov 2016	-		3.789	Continuing	Continuing	Continuing
Ballistic Missile Defense System (BMDS) Level Testing - AN/TPY-2 & SBX FT & GT	SS/CPAF	Raytheon : MA	0.000	38.974		0.000		0.000		-		0.000	0	38.974	0

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Missile Defense Agency** **Date:** February 2016

<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>				<b>FY 2015</b>		<b>FY 2016</b>		<b>FY 2017 Base</b>		<b>FY 2017 OCO</b>		<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>			
Ballistic Missile Defense System (BMDS) Level Testing - UEWR/CD FT & GT	C/FPIF	deciBel : MA/AL	0.000	6.599		0.000		0.000		-		0.000	0	6.599	0
Element Test and Infrastructure - TPY-2 & SBX SSF Integration & Infrastructure, Sys Test Lab	SS/CPAF	Raytheon : MA	0.000	10.461		0.000		0.000		-		0.000	0	10.461	0
Element Test and Infrastructure - UEWR SSF Integration & Infrastructure, Sys Test Lab	C/CPIF	Raytheon, deciBel : AL/MA	0.000	4.014		0.000		0.000		-		0.000	0	4.014	0
<b>Subtotal</b>			0.000	60.048		79.782		78.430		-		78.430	-	-	-

**Remarks**  
N/A

	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	0.000	60.048	79.782	78.430	-	78.430	-	-	-

**Remarks**  
N/A

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**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Missile Defense Agency** **Date:** February 2016

<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 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
FTX-20 (AEGIS 5.0, Target Only Flight Test)	▲																											
GTI-06 Part 1 (BMDS Ground Test)			+																									
GTI-06 Part 3 (BMDS Ground Test)				+																								
GTD-06 Part 1 (BMDS Ground Test)					+																							
GM CTV-02 Plus (GM, Intercept Flight Test)					△																							
FTX-21 (AEG IS SBT, Target Only Flight Test)								☆																				
GTI-06 Part 2 (BMDS Ground Test)								☆																				
GTI-ISR ( 16) (BMDS Ground Test)								☆																				
GTD-06 Part 2 (BMDS Ground Test)									☆																			
FTG-15 (GM, Intercept Flight Test)									△																			
Israeli Cooperative Intercept Flight Test - FY 2017										☆	☆	☆	☆															
FTT-18 (TH, Intercept Flight Test)												△																
FTT-15 (TH, Intercept Flight Test)												△																
GTI-07a (BMDS Ground Test)												☆																
GTD-07a (BMDS Ground Test)													☆															
FTG-11 (IOT&E) (GM, Intercept Flight Test)													△															
FTM-29 (AEGIS 5.1, Intercept Flight Test)													△															
GTX-07b (BMDS Ground Test)													☆															
GTI-07b (BMDS Ground Test)														☆														
FTO-03 E2 (OTA, Intercept Flight Test)															△													
GTD-07b Part 1 (BMDS Ground Test)															☆													
GTI-ISR (18) (BMDS Ground Test)															△													
GTD-07b Part 2 (BMDS Ground Test)																☆												
GTX-08 Part 1 (BMDS Ground Test)																	☆											
FTX-22 (SN, Target Only Flight Test)																		△										
FTT-19 (TH, Intercept Flight Test)																			△									
FTM-35 (AEGIS 5.1, Intercept Flight Test)																				△								
GTX-08 Part 2 (BMDS Ground Test)																					☆							
FTG-18 (GM, Intercept Flight Test)																						△						
FTT-16 (TH, Intercept Flight Test)																							△					
FTX-25 (SN, Target Only Flight Test)																								△				
GTI-08 (BMDS Ground Test)																									☆	☆		

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**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Missile Defense Agency** **Date:** February 2016

<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 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
GTD-08 Part 1 (BMDS Ground Test)																												
GTD-08 Part 2 (BMDS Ground Test)																												
FTX-26 (SN, Target Only Flight Test)																												
FTO-04 (OTA, Intercept Flight Test)																												
FTT-21 (TH, Intercept Flight Test)																												
GTX-09 (BMDS Ground Test)																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2017 Missile Defense Agency		<b>Date:</b> February 2016
<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>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FTX-20 (AEGIS 5.0, Target Only Flight Test)	1	2015	1	2015
GTI-06 Part 1 (BMDS Ground Test)	3	2015	3	2015
GTI-06 Part 3 (BMDS Ground Test)	4	2015	4	2015
GTD-06 Part 1 (BMDS Ground Test)	1	2016	1	2016
GM CTV-02 Plus (GM, Intercept Flight Test)	2	2016	2	2016
FTX-21 (AEG IS SBT, Target Only Flight Test)	3	2016	3	2016
GTI-06 Part 2 (BMDS Ground Test)	3	2016	3	2016
GTI-ISR ( 16) (BMDS Ground Test)	3	2016	3	2016
GTD-06 Part 2 (BMDS Ground Test)	4	2016	4	2016
FTG-15 (GM, Intercept Flight Test)	1	2017	1	2017
Israeli Cooperative Intercept Flight Test - FY 2017	1	2017	4	2017
FTT-18 (TH, Intercept Flight Test)	3	2017	3	2017
FTT-15 (TH, Intercept Flight Test)	3	2017	3	2017
GTI-07a (BMDS Ground Test)	3	2017	3	2017
GTD-07a (BMDS Ground Test)	4	2017	4	2017
FTG-11 (IOT&E) (GM, Intercept Flight Test)	1	2018	1	2018
FTM-29 (AEGIS 5.1, Intercept Flight Test)	1	2018	1	2018
GTX-07b (BMDS Ground Test)	1	2018	1	2018
GTI-07b (BMDS Ground Test)	3	2018	4	2018
FT0-03 E2 (OTA, Intercept Flight Test)	1	2019	1	2019
GTD-07b Part 1 (BMDS Ground Test)	1	2019	1	2019
GTI-ISR (18) (BMDS Ground Test)	1	2019	1	2019

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2017 Missile Defense Agency **Date:** February 2016

<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
GTD-07b Part 2 (BMDS Ground Test)	2	2019	2	2019
GTX-08 Part 1 (BMDS Ground Test)	3	2019	3	2019
FTX-22 (SN, Target Only Flight Test)	3	2019	3	2019
FTT-19 (TH, Intercept Flight Test)	4	2019	4	2019
FTM-35 (AEGIS 5.1, Intercept Flight Test)	4	2019	4	2019
GTX-08 Part 2 (BMDS Ground Test)	1	2020	1	2020
FTG-18 (GM, Intercept Flight Test)	2	2020	2	2020
FTT-16 (TH, Intercept Flight Test)	3	2020	3	2020
FTX-25 (SN, Target Only Flight Test)	3	2020	3	2020
GTI-08 (BMDS Ground Test)	3	2020	4	2020
GTD-08 Part 1 (BMDS Ground Test)	4	2020	4	2020
GTD-08 Part 2 (BMDS Ground Test)	1	2021	1	2021
FTX-26 (SN, Target Only Flight Test)	3	2021	3	2021
FTO-04 (OTA, Intercept Flight Test)	3	2021	3	2021
FTT-21 (TH, Intercept Flight Test)	4	2021	4	2021
GTX-09 (BMDS Ground Test)	4	2021	4	2021

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**Exhibit R-2A, RDT&E Project Justification:** PB 2017 Missile Defense Agency **Date:** February 2016

<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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
MD40: <i>Program Wide Support</i>	-	0.000	3.815	4.820	-	4.820	4.470	5.379	5.382	4.842	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

Beginning in FY 2016, Program Wide Support (PWS) was proportionately allocated to Ballistic Missile Defense Sensor Test. In FY 2017, the PWS increase is a result of proportional reallocations based on a pro-rata basis of the adjusted RDT&E profile.

**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 Global Deployment personnel and support performing deployment site preparation and activation and, provides facility capabilities for MDA Executing Agent locations. Other MDA wide costs includes: 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 and therefore, fluctuates by year based on the adjusted RDT&E profile (which excludes: 0305103C Cyber Security Initiative, 0603274C Special Programs, 0603913C Israeli Cooperative Program and 0901598C Management Headquarters).

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

	FY 2015	FY 2016	FY 2017
<b>Title:</b> Program Wide Support	0.000	3.815	4.820
<b>Articles:</b>	-	-	-
<b>Description:</b> N/A			
<b>FY 2015 Accomplishments:</b> - FY 2015 Accomplishments are captured in multiple RDT&E Program Elements under MD40 Budget Project			
<b>FY 2016 Plans:</b> - Beginning in FY 2016, Program Wide Support was redistributed across RDT&E Program Elements with a proportional allocation to Ballistic Missile Defense Sensor Test - See paragraph A: Mission Description and Budget Item Justification			
<b>FY 2017 Plans:</b> - See paragraph A: Mission Description and Budget Item Justification.			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	3.815	4.820

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2017 Missile Defense Agency		<b>Date:</b> February 2016
<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>C. Other Program Funding Summary (\$ in Millions)</b> N/A		
<b>Remarks</b>		
<b>D. Acquisition Strategy</b> N/A		
<b>E. Performance Metrics</b> N/A		

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Missile Defense Agency** **Date:** February 2016

<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 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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	Allot	Various : Multi: AL, VA	0.000	0.000		0.000		0.096	Jul 2017	-		0.096	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services (Reqn)	MIPR	Various : Multi: AL, VA	0.000	0.000		3.815		4.724	Aug 2017	-		4.724	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	0.000		3.815		4.820		-		4.820	-	-	-

**Remarks**  
N/A

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	0.000	3.815	4.820	-	4.820	-	-	-

**Remarks**  
N/A

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**Exhibit R-4, RDT&E Schedule Profile: PB 2017 Missile Defense Agency** **Date:** February 2016

<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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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 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
MD40 Program-Wide Support					☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆				

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2017 Missile Defense Agency		<b>Date:</b> February 2016
<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	2016	4	2020

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