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

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 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment 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	-	109.394	26.225	63.444	-	63.444	69.959	79.497	72.950	59.271	Continuing	Continuing
MT07: <i>THAAD Test</i>	-	109.394	25.072	60.577	-	60.577	66.569	75.456	69.204	56.145	Continuing	Continuing
MD40: <i>Program Wide Support</i>	-	0.000	1.153	2.867	-	2.867	3.390	4.041	3.746	3.126	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

FY 2017 Terminal High Altitude Area Defense (THAAD) Test funding increased from FY 2016 due to the scheduled execution of one THAAD flight test in FY2017, compared with no flight tests executed in FY 2016.

A. Mission Description and Budget Item Justification

THAAD System Test conducts Ballistic Missile Defense System (BMDS) Flight Tests and Ground Tests with other BMDS elements in accordance with the BMDS Integrated Master Test Plan (IMTP). THAAD System Test coordinates with Operational Test Agencies, conducts flight test operations, performs post-flight test reporting, and performs data distribution and data storage at Pacific Missile Range Facility and the Reagan Test Site.

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.

B. Program Change Summary (\$ in Millions)

	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>
Previous President's Budget	111.366	26.225	74.400	-	74.400
Current President's Budget	109.394	26.225	63.444	-	63.444
Total Adjustments	-1.972	0.000	-10.956	-	-10.956
• 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	-1.972	0.000			
• Other Adjustment	0.000	0.000	-10.956	-	-10.956

Change Summary Explanation

The reduction in FY 2017 from the previous President's Budget reflects updated estimates for the execution of Flight Test THAAD-15 (FTT-15).

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Missile Defense Agency										Date: February 2016		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>				Project (Number/Name) MT07 / <i>THAAD Test</i>			
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
MT07: <i>THAAD Test</i>	-	109.394	25.072	60.577	-	60.577	66.569	75.456	69.204	56.145	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

FY 2017 THAAD Test funding increased from FY 2016 because THAAD is executing one flight test in FY 2017, compared to no flight tests executed in FY 2016.

A. Mission Description and Budget Item Justification

THAAD System Test conducts BMDS Flight Tests and Ground Tests with other BMDS elements (including BMDS Command, Control, Battle Management, and Communication, PATRIOT, and Aegis) in accordance with the BMDS IMTP. THAAD System Test coordinates with Operational Test Agencies, conducts flight test operations, performs post-flight test reporting, and performs data distribution and data storage at Pacific Missile Range Facility and the Reagan Test Site.

THAAD Flight Test Execution includes mission planning, pre-flight integration testing, conduct of readiness reviews, test asset transportation, flight test execution and data collection, post flight test reporting and data distribution.

Ground Test Execution includes mission planning, BMDS test integration, conduct of readiness reviews, ground test execution and data collection, and post-test reporting and data distribution.

Resources include sustainment and maintenance of test equipment and facilities. It provides maintenance, repair, and fueling of THAAD Battery assets utilized in testing.

Wargames & Exercises supports Combatant Commanders with modeling and simulations and subject matter expertise during exercise events.

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

	FY 2015	FY 2016	FY 2017
Title: Flight Test Execution	92.286	16.058	52.020
Articles:	-	-	-
Description: THAAD Flight Test Execution includes mission planning, pre-flight integration testing, conduct of readiness reviews, test asset transportation, flight test execution and data collection, post flight test reporting and data distribution.			
FY 2015 Accomplishments:			
- Conducted flight test planning, range interface, coordination with Operational Test Agencies (OTAs) and execution of flight test operations at Wake Island for Flight Test Operational-02 Event 2a(FTO-02 E2a) (BMDS Operational Flight Test) to further demonstrate, in an operational scenario, THAAD's ability to conduct coordinated engagements with Aegis and PATRIOT operating with BMDS Command, Control, Battle Management, and Communications (C2BMC) and forward-based Army Navy / Transportable Radar Surveillance (AN/TPY-2) while engaging a Short Range Ballistic Missile.			

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) MT07 / <i>THAAD Test</i>

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

	FY 2015	FY 2016	FY 2017
<p>- FTO-02 E2 was characterized as a “no test” due to a target extraction deployment malfunction. The test was re-planned as FTO-02 E2a.</p> <p>- Conducted flight test planning, range interface, coordination with Operational Test Agencies (OTAs) for Flight Test THAAD-18 (FTT-18) to demonstrate THAAD’s ability to intercept an Intermediate Range Ballistic Missile (IRBM) target using the THAAD radar, launcher, fire control and communications, Interceptor closed-loop operations, and engagement functions. However, FTT-18 was delayed for execution to first quarter FY 2016 because Flight Test Operational-02 Event 1 (FTO-02 E1) was a “no test” due to a target extraction failure that prevented target ignition.</p> <p>FY 2016 Plans:</p> <p>- Reduction in flight test cost from FY 2015 to FY 2016 is due to the scheduled execution of two THAAD flight tests in FY 2015, compared with no flight tests scheduled for execution in FY 2016. In FY 2015 THAAD scheduled to execute FTO-02 (BMDS Operational Flight Test) and FTT-18. In FY 2016, THAAD was not scheduled to conduct any flight tests and plans to complete post-mission analysis work for FTO-02 E2a, which was conducted first quarter FY 2016, and initiate test planning activities for FTT-15.</p> <p>- Complete FTO-02 E2a post-test reporting and data distribution to provide data for analysis and integration into Ballistic Missile Defense System (BMDS) Modeling and Simulation. FY 2016 funds are needed to finalize post flight test activities as FTO-02 E2a was executed in first quarter FY 2016.</p> <p>- Complete planning for FTT-18, a THAAD flight test against an Intermediate Range Ballistic Missile (IRBM). FTT-18 was planned for execution in 1QFY16. However, due to range and resource availability, the mission was not executed. Options are under review to reschedule this test in the FY17/18 timeframe.</p> <p>- Initiate pre-mission planning for Flight Test THAAD-15 (FTT-15), to include long lead activities like range safety and weapon system performance analysis. FY 2016 funds are requested because long lead planning activities are required to begin approximately 12 months prior to a flight test event and FTT-15 is scheduled for third quarter FY 2017.</p> <p>FY 2017 Plans:</p> <p>- The increase in flight test cost from FY 2016 to FY 2017 is due to the scheduled execution of one THAAD flight test in FY 2017, compared with no flight tests initially planned for FY 2016. In FY 2017 THAAD plans to execute Flight Test THAAD-15 (FTT-15).</p> <p>- Conduct flight test planning, range interface, coordination with Operational Test Agencies (OTAs) and execution of flight test operations for Flight Test THAAD-15 (FTT-15) to demonstrate THAAD’s ability to intercept an Medium Range Ballistic Missile (MRBM) target using the THAAD radar, launcher, fire control and communications, Interceptor closed-loop operations, and engagement functions. MDA is currently assessing various test range locations for opportunities to reduce test costs. Additionally, FTT-15 will be the first developmental test of THAAD against a complex target scene. The results will inform additional THAAD development against associated objects.</p>			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2015	FY 2016	FY 2017
- Initiate pre-mission planning for Flight Test Operational-03 Event 2 (FTO-03 E2), to include long lead activities such as range safety and weapon system performance analysis. FY 2017 funds are requested because long lead planning activities are required to begin approximately 12 months prior to the FTO-03 E2 flight test event scheduled for fourth quarter FY 2018.				
Title: Ground Test Execution		4.917	5.106	5.192
		Articles: -	-	-
Description: Ground Test Execution includes mission planning, BMDS test integration, conduct of readiness reviews, ground test execution and data collection, post-test reporting and data distribution.				
FY 2015 Accomplishments: - Continued THAAD participation in Missile Defense Agency (MDA) Ground Test operational scenario events (GT-04 and GT-06 campaigns) to ensure THAAD's ability to conduct coordinated engagements with Aegis and PATRIOT operating with Command, Control, Battle Management, and Communications (C2BMC) and forward-based Army Navy Transportable Radar Surveillance and Control (AN/TPY-2) - Provided pre-mission planning, pre- and post-mission analysis, reporting support, and execution to BMDS Ground Test campaigns. - Continued performance assessments to evaluate system performance and interoperability within the integrated Ballistic Missile Defense System (BMDS).				
FY 2016 Plans: - Continue THAAD participation in Missile Defense Agency (MDA) Ground Test operational scenario events (GT-06 and GT-07 campaigns) to ensure THAAD's ability to conduct coordinated engagements with Aegis and PATRIOT operating with Command, Control, Battle Management, and Communications (C2BMC) and forward-based Army Navy Transportable Radar Surveillance and Control (AN/TPY-2). - Provide pre-mission planning, pre- and post-mission analysis, reporting support, and execution to BMDS Ground Test campaigns. - Continue performance assessments to evaluate system performance and interoperability within the integrated Ballistic Missile Defense System (BMDS).				
FY 2017 Plans: - Continue THAAD participation in MDA Ground Test operational scenario events (GT-07 campaign) to ensure THAAD's ability to conduct coordinated engagements with Aegis and PATRIOT operating with C2BMC and AN/TPY-2. - Provide pre-mission planning, pre- and post-mission analysis, reporting support, and execution to BMDS Ground Test campaigns.				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2015	FY 2016	FY 2017
- Continue performance assessments to evaluate system performance and interoperability within the integrated BMDS.				
Title: Resources		11.814	3.471	2.920
		Articles:	-	-
Description: Resources include sustainment and maintenance of test labs and facilities. It provides maintenance, repair, and fueling of THAAD Battery assets utilized in testing.				
FY 2015 Accomplishments:				
<ul style="list-style-type: none"> - Provided data management, facilities operations, and post-test reporting in support of BMDS Tests to ensure data collection and readiness for mission execution. - Provided on-site range support for Terminal High Altitude Area Defense (THAAD) maintenance, repair, and fueling to ensure readiness of the THAAD test assets. - Continued performance assessments to evaluate system performance and interoperability within the integrated Ballistic Missile Defense System (BMDS). - Supported FTO-02 Event 2 System pre-mission test and Leap Second changes for the THAAD Weapon System, and provided data to address changes implemented in the THAAD Build 2.2.1 Debris Mitigation Capability to support an OTA assessment. 				
FY 2016 Plans:				
<ul style="list-style-type: none"> - Reduction from FY 2015 to FY 2016 due to the completion of improvements to the operations facilities and infrastructure required for continued support of BMD System Tests. - Provide data management, facilities operations, and post-test reporting in support of Ballistic Missile Defense System (BMDS) System Tests to ensure data collection and readiness for mission execution. - Provide on-site range support for Terminal High Altitude Area Defense (THAAD) maintenance, repair, and fueling to ensure readiness of the THAAD test assets. - Continue performance assessments to evaluate system performance and interoperability within the integrated Ballistic Missile Defense System (BMDS). 				
FY 2017 Plans:				
<ul style="list-style-type: none"> - The decrease in Resources cost from FY 2016 to FY 2017 is due to the reallocation of funding into the War Games and Exercises accomplishment area to better align the funding with the effort - Provide on-site range support for THAAD maintenance, repair, and pre-mission analysis to ensure THAAD test asset readiness - Provide data management, facilities operations, and post-test reporting in support of BMDS tests to ensure data collection and readiness for mission execution - Continue Performance Assessments to evaluate system performance and interoperability within the integrated BMDS 				
Title: Wargames and Exercises		0.377	0.437	0.445

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2015	FY 2016	FY 2017
<p align="right"><i>Articles:</i></p> <p>Description: See planned accomplishments</p> <p>FY 2015 Accomplishments: -Provided support to the various Combatant Commands (COCOM's) with model and simulations and subject matter expertise during the exercise events. Continued to assist in the development / refinement of Tactics, Techniques, and Procedures (TTP's) as well as Pre-Planned Responses (PPR's) to incorporate in further exercises, ground, and flight test events. Demonstrated THAAD capability and limitations to the warfighter community in the Integrated and Missile Defense (IAMD) environment.</p> <p>FY 2016 Plans: - The increase in War Games and Exercises cost from FY 2015 to FY 2016 is due to the reallocation of funding from Resources to better align the funding with the effort -Provide support to the various COCOM's with model and simulations and subject matter expertise during the exercise events. Continue to assist in the development/refining of Tactics, Techniques, and Procedures (TTP's) as well as Pre-Planned Responses (PPR's) to incorporate in further exercises, ground, and flight test events. Demonstrate THAAD capability and limitations to the warfighter community in the Integrated and Missile Defense (IAMD) environment</p> <p>FY 2017 Plans: - Support CCMDs with model and simulations and subject matter expertise during exercise events. Continue to assist in developing/refining Tactics, Techniques, and Procedures and Pre-Planned Responses to incorporate in future events. Demonstrate THAAD capability and limitations to the warfighter community in the Integrated and Missile Defense (IAMD) environment</p>	-	-	-
Accomplishments/Planned Programs Subtotals	109.394	25.072	60.577

C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• 0208866C: O&M	402.462	424.069	446.975	-	446.975	470.884	496.702	533.236	541.432	0	3,315.760
• 0208866C: MD07: THAAD Procurement	449.824	464.067	362.605	-	362.605	330.002	317.414	313.631	0.000	3,289.952	5,527.495
• 0603881C: Ballistic Missile Defense Terminal Defense Segment	161.298	212.230	206.834	-	206.834	231.105	197.018	250.227	260.613	Continuing	Continuing
Remarks											

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

THAAD awards Indefinite Delivery Indefinite Quantity (IDIQ) Task Orders on the Advanced Capability Development (ACD) contract for the continuation of THAAD 2.0 development and test as described and approved in the MDA Integrated Master Test Plan. The discrete task orders allow management and tracking of Development work.

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

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) MT07 / <i>THAAD Test</i>
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Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 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
Flight Test Execution - Execution, Support and Planning	MIPR	MDA / AMRDEC / Wake Island / RTS : AL / CO / HI / Wake Island / Kwaj	0.000	58.806		4.156	Oct 2015	31.759	Oct 2016	-		31.759	Continuing	Continuing	Continuing
Flight Test Execution - Planning, Analysis, and Execution	SS/IDIQ	Lockheed Martin : Sunnyvale, CA / Huntsville, AL	0.000	33.480		11.902	Oct 2015	20.261	Oct 2016	-		20.261	Continuing	Continuing	Continuing
Ground Test Execution - BMDS Ground Test Support	MIPR	US Army AMRDEC : Huntsville, AL	0.000	4.917		5.106	Oct 2015	5.192	Oct 2016	-		5.192	Continuing	Continuing	Continuing
Resources - MDA Test IT Program Support	C/CPAF	Northrup Grumman : AL, AK, CA, CO, HI, NM, VA	0.000	2.830		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Resources - MDA Test Program Support	MIPR	MDA : AL / CO / VA	0.000	2.351		0.393		0.000		-		0.000	Continuing	Continuing	Continuing
Resources - Test and Range Infrastructure	MIPR	US Army AMRDEC / White Sands Missile Range / Lincoln Labs : Huntsville, AL / White Sands, NM / MA	0.000	6.633		3.078	Oct 2015	2.920	Oct 2016	-		2.920	Continuing	Continuing	Continuing
Wargames and Exercises - Wargames and Exercises	MIPR	MDA / Space and Missile Defense Command : Huntsville, AL	0.000	0.377		0.437	Oct 2015	0.445	Oct 2016	-		0.445	Continuing	Continuing	Continuing
Subtotal			0.000	109.394		25.072		60.577		-		60.577	-	-	-

Remarks

- Reduction in flight test cost from FY 2015 to FY 2016 is due to the scheduled execution of two THAAD flight tests in FY 2015, compared with no flight tests scheduled for execution in FY 2016. In FY 2015 THAAD scheduled to execute FTO-02 (BMDS Operational Flight Test) and FTT-18. In FY 2016, THAAD was not scheduled to conduct any flight tests and plans to complete post-mission analysis work for FTO-02 E2a, which was conducted first quarter FY 2016, and initiate test planning activities for FTT-15.

-Increases in R-3 Cost Category Items related to Flight Test Execution from FY 2016 to FY 2017 are due to no flight test being executed in FY 2016. In FY 2017 THAAD plans to execute Flight Test THAAD-15 (FTT-15) and initiate test planning activities for Flight Test Operational-03 Event 2 (FTO-03 E2).

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

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) MT07 / <i>THAAD Test</i>
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Test and Evaluation (\$ in Millions)				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			

-Reductions in FY 2016 R-3 Cost Category Items for Resources from FY 2015 to FY 2016 due to the completion of improvements to the operations facilities and infrastructure required for continued support of BMD System Tests.

-Award dates are shown as October as they are the continuation of task orders or MIPRs from previous FYs.

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	109.394	25.072	60.577	-	60.577	-	-	-

Remarks

N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Missile Defense Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) MT07 / <i>THAAD Test</i>

Significant Event Complete ▲ Milestone Decision Complete ★ Element Test Complete ◆ System Level Test Complete ● Complete Activity Planned Activity ✦
 Significant Event Planned △ Milestone Decision Planned ☆ Element Test Planned ◇ System Level Test Planned ○

	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
GTI-06 Part 1 (BMDS Ground Test)			✦																									
FTT-18 (TH, Intercept Flight Test)										△																		
FTO-02 E2a (OTA, Intercept Flight Test)				✦	✦																							
GTI-06 Part 2 (BMDS Ground Test)								✦																				
GTI-ISR (16) (BMDS Ground Test)								✦																				
FTT-15 (TH, Intercept Flight Test)										△																		
GTI-07a (BMDS Ground Test)										✦																		
GTD-07a (BMDS Ground 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)																	✦											
FTT-19 (TH, Intercept Flight Test)																		△										
GTX-08 Part 2 (BMDS Ground Test)																			✦									
FTT-16 (TH, Intercept Flight Test)																					△							
GTI-08 (BMDS Ground Test)																						✦	✦					
GTD-08 Part 1 (BMDS Ground Test)																							✦					
GTD-08 Part 2 (BMDS Ground Test)																								✦				
FTT-21 (TH, Intercept Flight Test)																											△	
GTX-09 (BMDS Ground Test)																												✦

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Missile Defense Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) MT07 / <i>THAAD Test</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GTI-06 Part 1 (BMDS Ground Test)	3	2015	3	2015
FTT-18 (TH, Intercept Flight Test)	3	2017	3	2017
FT0-02 E2a (OTA, Intercept Flight Test)	4	2015	1	2016
GTI-06 Part 2 (BMDS Ground Test)	3	2016	3	2016
GTI-ISR (16) (BMDS Ground Test)	3	2016	3	2016
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
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
GTD-07b Part 2 (BMDS Ground Test)	2	2019	2	2019
GTX-08 Part 1 (BMDS Ground Test)	3	2019	3	2019
FTT-19 (TH, Intercept Flight Test)	4	2019	4	2019
GTX-08 Part 2 (BMDS Ground Test)	1	2020	1	2020
FTT-16 (TH, Intercept 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
FTT-21 (TH, Intercept Flight Test)	4	2021	4	2021

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Missile Defense Agency			Date: February 2016	
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Events	Start		End	
	Quarter	Year	Quarter	Year
GTX-09 (BMDS Ground Test)	4	2021	4	2021

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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	1.153	2.867	-	2.867	3.390	4.041	3.746	3.126	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Beginning in FY 2016, Program Wide Support (PWS) was proportionately allocated to the Ballistic Missile Defense Terminal Defense Segment Test. In FY 2017, PWS reflects a proportional change as a result an increase in Ballistic Missile Defense Terminal Defense Segment Test.

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
Title: Program Wide Support	0.000	1.153	2.867
Articles:	-	-	-
Description: N/A			
FY 2015 Accomplishments: - FY 2015 Accomplishments were captured in multiple RDT&E Program Elements under MD40 Budget Project			
FY 2016 Plans: - Beginning in FY 2016, Program Wide Support was redistributed across RDT&E Program Elements with a proportional allocation to Ballistic Missile Defense Terminal Defense Segment Test - See paragraph A: Mission Description and Budget Item Justification			
FY 2017 Plans: - See paragraph A: Mission Description and Budget Item Justification.			
Accomplishments/Planned Programs Subtotals	0.000	1.153	2.867

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Missile Defense Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>
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 2017 Missile Defense Agency **Date:** February 2016

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) MD40 / <i>Program Wide Support</i>
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Support (\$ in Millions)				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, Aust, Japan	0.000	0.000		0.725		0.057	Jul 2017	-		0.057	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support International and Materiel and Readiness	MIPR	Various : Multi: AL, VA, Aust, Japan	0.000	0.000		0.428		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various : Multi: AL, VA	0.000	0.000		0.000		2.810	Aug 2017	-		2.810	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		1.153		2.867		-		2.867	-	-	-

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
Project Cost Totals	0.000	0.000	1.153	2.867	-	2.867	-	-	-

Remarks
N/A

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

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment Test</i>	Project (Number/Name) 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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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Missile Defense Agency		Date: February 2016
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604876C / <i>Ballistic Missile Defense Terminal Defense Segment 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	2016	4	2020

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