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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Missile Defense Agency										Date: May 2017		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	78.463	54.619	56.481	76.757	-	76.757	74.205	69.713	77.826	79.094	Continuing	Continuing
MT08: Midcourse Test	78.463	51.821	53.192	73.453	-	73.453	70.638	66.474	74.069	75.309	Continuing	Continuing
MD40: Program Wide Support	-	2.798	3.289	3.304	-	3.304	3.567	3.239	3.757	3.785	Continuing	Continuing
Program MDAP/MAIS Code: 362												
Note												
Increase from FY 2017 to FY 2018 is due to the Integrated Master Test Plan changes.												
A. Mission Description and Budget Item Justification												
Ballistic Missile Defense Midcourse Defense Segment Test provides flight and ground testing of Ground-based Midcourse Defense (GMD) functionality to demonstrate Enhanced Homeland Defense capabilities against long-range threats. The GMD components are tested in an integrated environment with Ballistic Missile Defense System (BMDS) sensors; Command & Control, Battle Management, Communications (C2BMC); Warfighters; and national collection assets to assess the ability to defend the United States and its territories against ballistic missile attack.												
B. Program Change Summary (\$ in Millions)				FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total				
Previous President's Budget				64.618	56.481	86.709	-	86.709				
Current President's Budget				54.619	56.481	76.757	-	76.757				
Total Adjustments				-9.999	0.000	-9.952	-	-9.952				
• 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				-9.999	0.000							
• SBIR/STTR Transfer				0.000	0.000							
• Other Adjustment				0.000	0.000	-9.952	-	-9.952				
Change Summary Explanation												
The decrease in FY2018 from PB17 to PB18 reflects reduced requirements for the Integrated Master Test Plan.												

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Missile Defense Agency										Date: May 2017		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test				Project (Number/Name) MT08 / Midcourse Test			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
MT08: Midcourse Test	78.463	51.821	53.192	73.453	-	73.453	70.638	66.474	74.069	75.309	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Increase from FY 2017 to FY 2018 is due to Integrated Master Test Plan changes.												
A. Mission Description and Budget Item Justification Ballistic Missile Defense Midcourse Defense Segment Test provides flight and ground testing of GMD functionality to demonstrate Enhanced Homeland Defense capabilities against long-range threats. The GMD components are tested in an integrated environment with BMDS sensors; C2BMC; Warfighters; and national collection assets to assess the ability to defend the United States and its territories against ballistic missile attack.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2016	FY 2017	FY 2018	
Title: Resources Articles: Description: Provides support associated with day-to-day operations of the flight and ground test programs to include engineering support for ground test planning, execution, and post-event reconstruction. FY 2016 Accomplishments: -Provided test infrastructure and coordinated flight test range support from Vandenberg Air Force Base, California for all range activities, engineering, operators and GBI transportation -Provided command and control and situational awareness for the GMD flight and ground test events at the MDA Integration and Operations Center (MDIOC) in Colorado Springs, Colorado and the Readiness and Control Facility (R&C) in Ft. Greely, Alaska -Provided test communication plans, test communication control, satellite communication bandwidth, test network certification and accreditation for GMD flight and ground tests to integrate the range in Vandenberg Air Force Base, California and MDIOC in Colorado Springs, Colorado and Ft. Greely, Alaska and Pacific Missile Range Facility (PMRF) in Hawaii -Provided engineering, operations and maintenance of the integrated system test labs in Huntsville, Alabama to conduct BMDS flight test pre-mission risk reduction and system level ground testing for fielding warfighter capabilities that defend the homeland -Provided operations and maintenance of the Prime Consolidated Integration Lab (PCIL) in Huntsville, Alabama to support flight test pre-mission risk reduction and post-flight reconstruction to provide confidence in models and simulations used for evaluation of performance of GMD homeland defense capabilities -Supported cyber security initiatives for the BMDS Missile Defense Agency Windows 10 implementation FY 2017 Plans:									23.216	14.196	18.250	
									-	-	-	

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018
<p>-Provide test infrastructure and coordination of flight test range support from Vandenberg Air Force Base, CA for all range activities, engineering, operators and GBI transportation, including preparation for the first GBI salvo flight test</p> <p>-Provide BMDS flight and ground test execution situational awareness through the use of the MDA Integration and Operations Center (MDIOC) housing flight, ground and operational controlled assets of the GMD system located in Colorado Springs, CO</p> <p>-Support pre- and post-flight test mission communications to include fulfillment of requirements and data analyses</p> <p>-Provide System Test Lab support to the engineering, accreditation, operations and maintenance of facilities supporting the Flight and Ground Test Programs</p> <p>-Continue to provide operations and maintenance, and provide equipment upgrades of the Prime Consolidated Integration Lab (PCIL) in Huntsville, Alabama to support flight test pre-mission risk reduction and post-flight reconstruction to provide confidence in models and simulations used for evaluation of performance of GMD homeland defense capabilities</p> <p>-Continue salvo range infrastructure upgrades, which include: launch facility, range safety systems and situational awareness monitoring systems to accommodate two GBIs, at Vandenberg Air Force Base, California in preparation for the Flight Test Ground-based Midcourse Defense-11 (FTG-11)</p> <p>FY 2018 Plans:</p> <p>-Increase from FY 2017 to FY 2018 due to the Salvo intercept test requirements to support multiple interceptors: additional range support for mission execution, safety systems, and additional data collectors</p> <p>-Provide test infrastructure and coordinate flight test range support from Vandenberg Air Force Base, California for all range activities, engineering, operators and GBI transportation</p> <p>-Provide command and control and situational awareness for the GMD flight and ground test events at the MDA Integration and Operations Center (MDIOC) in Colorado Springs, Colorado and the Readiness and Control Facility (R&C) in Ft. Greely, Alaska</p> <p>-Provide test communication plans, test communication control, satellite communication bandwidth, test network certification and accreditation for GMD flight and ground tests to integrate the range in Vandenberg Air Force Base, California and MDIOC in Colorado Springs, Colorado and Ft. Greely, Alaska and Pacific Missile Range Facility (PMRF) in Hawaii</p> <p>-Provide engineering, operations and maintenance of the integrated system test labs in Huntsville, Alabama to conduct BMDS flight test pre-mission risk reduction and system level ground testing for fielding warfighter capabilities that defend the homeland</p> <p>-Continue to provide operations and maintenance, and provide equipment upgrades of the Prime Consolidated Integration Lab (PCIL) in Huntsville, Alabama to support flight test pre-mission risk reduction and post-flight reconstruction to provide confidence in models and simulations used for evaluation of performance of GMD homeland defense capabilities</p> <p>-Complete salvo range infrastructure upgrades, which include: launch facility, range safety systems and situational awareness monitoring systems to accommodate two GBIs, at Vandenberg Air Force Base, California in preparation for the Flight Test Ground-based Midcourse Defense-11 (FTG-11)</p>				
Title: Flight Test Execution		24.681	19.104	37.606

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017
Articles:		-	-
<p>Description: Flight tests demonstrate the capabilities and/or phenomenology that cannot be adequately tested or obtained during ground testing. Flight tests also provide opportunities to test actual hardware and to demonstrate Ballistic Missile Defense System (BMDS) Element interoperability under operationally realistic conditions.</p> <p>FY 2016 Accomplishments:</p> <ul style="list-style-type: none"> -Conducted Flight Test Ground-based Midcourse Defense GM CTV-02+, a 3-stage Capability Enhancement II (CE-II) non-intercept engagement using a GBI launched from Vandenberg Air Force Base, California against an air launched Intermediate Range Ballistic Missile (IRBM) with associated objects to test the Alternate Divert Thrusters (ADT), and the Exoatmospheric Kill Vehicle (EKV) upgraded Discrimination Database (KDB) to support fielding the CEII / Block I Kill Vehicle (KV) -Continued planning for Flight Test Ground-based Midcourse Defense-15 (FTG-15), a 3-stage Configuration 2 (Consolidated Booster Avionics Upgrade (C2/CBAU) intercept engagement using a GBI launched from Vandenberg Air Force Base, California against an Intercontinental Ballistic Missile (ICBM) target with associated objects, launched from Reagan Test Site (RTS) to support meeting the mandated objective of fielding 44 operational GBIs by 2017 --Collected Critical Engagement Conditions (CEC) / Empirical Measurement Events (EME) data that validates Models and Simulations (M&S) -Initiated planning for Flight Test Ground-based Midcourse Defense-11 (FTG-11), a 3-stage CE-II and 3-stage CE-I Salvo intercept using GBIs launched from Vandenberg Air Force Base, California against an ICBM target with associated objects, launched from Reagan Test Site (RTS) to test operational realism of the GMD salvo capability <p>FY 2017 Plans:</p> <ul style="list-style-type: none"> -Conduct Flight Test Ground-based Midcourse Defense-15 (FTG-15), a 3-stage C2/CBAU intercept engagement using a GBI launched from Vandenberg Air Force Base, California against an ICBM target with associated objects, launched from Reagan Test Site (RTS) --Collect Critical Engagement Conditions (CEC) / Empirical Measurement Events (EME) data that validates Models and Simulations (M&S) -Continue planning for Flight Test Ground-based Midcourse Defense-11 (FTG-11), a 3-stage CE-II Block I and 3-stage CE-II Salvo intercept using GBIs launched from Vandenberg Air Force Base, California against a target with associated objects, launched from Reagan Test Site (RTS) <p>FY 2018 Plans:</p> <ul style="list-style-type: none"> -Increase from FY 2017 to FY 2018 is due to the execution of FTG-11 and initial planning for CTV-03. 			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018
<p>-Conduct Flight Test Ground-based Midcourse Defense-11 (FTG-11), a 3-stage CE-II Block I and 3-stage CE-II Salvo intercept using GBIs launched from Vandenberg Air Force Base, California against an ICBM target with associated objects, launched from Reagan Test Site (RTS) to test operational realism of the GMD salvo capability. Salvo intercept test requires additional resources from previous missions to support multiple interceptors: additional range support for mission execution and safety systems, silo refurbishment of two silos, additional data collectors, and additional post mission analyses</p> <p>-Initiate planning of range and data collection assets for Flight Test Ground-based Midcourse Defense-Controlled Test Vehicle-03 (GM CTV-03), a non-intercept mission with Redesigned Kill Vehicle (RKV) to collect RKV flight environment data using a GBI launched from Vandenberg Air Force Base, California</p>				
<p>Title: Ground Test Execution</p> <p>Articles:</p> <p>Description: Ground tests demonstrate and validate Warfighter tactics, techniques, and procedures. Ground tests are executed both in the Hardware-in-the-loop (HWIL) lab and in the field. HWIL lab tests integrate and assess Ballistic Missile Defense System (BMDS) system- level performance based on new element capabilities. Ground tests in the field use existing fielded element assets and tactical communication networks, to integrate, assess and demonstrate the element capabilities.</p> <p>FY 2016 Accomplishments:</p> <p>-Completed execution of BMDS Ground Test-06 test campaign to assess BMDS capabilities with integration of additional BMDS assets to include the Ft. Drum, NY In-Flight Interceptor Communications System (IFICS) Data Terminal (IDT), and the Space-Based Infrared System (SBIRS) Increment 2 Change, and demonstrate GMD Fire Control (GFC) 6B3 capabilities using a lab based Hardware-in-the-Loop (HWIL) Configuration during Ground Test Integrated -06 (GTI-06)</p> <p>-Completed execution of BMDS Ground Test Distributed-06 (GTD-06) test campaign to assess BMDS capabilities and the mission functionality of the Ground-based Midcourse Defense (GMD) Fire Control (GFC) version 6B3 BMDS capabilities using fielded assets and long haul communications networks</p> <p>-Supported early integration of BMDS Ground Test-07 (GT-07) in support of reducing risk associated with Command, Control, Battle Management Communications (C2BMC) (Spiral 8.2-1 and BMDS Overhead Persistent Infrared Architecture 5.1) and Ground System 6B3.2</p> <p>-Supported planning of BMDS Ground Test-07 test campaign (GTI-07a) to assess BMDS capabilities and the mission functionality of the GMD Ground Systems version 6B3.2 BMDS capabilities for Future Sensor Utilization and Ground Systems (GS) Technology Refresh</p> <p>FY 2017 Plans:</p> <p>-Continue to support planning and integration of BMDS Ground Test-07 test campaign (GTI-07a / GTD-07a / GTX-07b) to assess BMDS capabilities and the mission functionality of the GMD Ground Systems (GS) software versions 6B3.2 / 7B BMDS capabilities for Future Sensor Utilization and Ground Systems (GS) Technology Refresh</p>		3.924 -	6.386 -	4.550 -

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test	Project (Number/Name) MT08 / Midcourse Test		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2016	FY 2017	FY 2018
<div>-Support execution of GTI-07a and GTD-07a to assess BMDS capabilities and the mission functionality of the GMD GS version 6B3.2 BMDS capabilities for Future Sensor Utilization and GS Technology Refresh</div> <div>-Support planning and integration of GTX-07b to assess BMDS capabilities and the mission functionality of the GMD GS software version 7B BMDS capabilities for Robust Homeland Defense performance</div> <div>FY 2018 Plans:</div> <div>-Decrease from FY 2017 to FY 2018 due to the completion of GT-06 Ground Test Campaign</div> <div>-Support execution of GT-07b Early Integration to assess BMDS capabilities and the mission functionality of the GMD GS version 7B BMDS capabilities for Robust Homeland Defense performance</div> <div>-Support execution of GTI-07b and continue to support planning and integration of GTD-07b Part 2 to assess BMDS capabilities and the mission functionality of the GMD GS version 7B BMDS capabilities for Future Sensor Utilization and GS Technology Refresh</div>				
<div>Title: Program Operations</div> <div>Articles:</div> <div>Description: Program Operations provides for government management of the Ground-based Midcourse Defense (GMD) Test program. Included in this effort is program and business management, program administration, technical and testing oversight, quality / safety / mission assurance, integrated logistics support, and government manpower and infrastructure to test the GMD system and components.</div> <div>FY 2016 Accomplishments: N/A</div> <div>FY 2017 Plans:</div> <div>-Provide technical and business management support activities, financial management, cost and schedule performance analyses, cost estimation and analyses, configuration management, and integration activities to the Program Director with critical program status and decision quality data</div> <div>-Ensure GMD test program compliance with internal and external direction, policies, and regulations to deliver critical capability within a consistent and disciplined process</div> <div>FY 2018 Plans:</div> <div>-Provide technical and business management support activities, financial management, cost and schedule performance analyses, cost estimation and analyses, configuration management, and integration activities to the Program Director with critical program status and decision quality data</div>		0.000 -	13.506 -	13.047 -

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Appropriation/Budget Activity 0400 / 4				R-1 Program Element (Number/Name) PE 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test				Project (Number/Name) MT08 / Midcourse Test				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2016	FY 2017	FY 2018
-Ensure GMD test program compliance with internal and external direction, policies, and regulations to deliver critical capability within a consistent and disciplined process												
Accomplishments/Planned Programs Subtotals										51.821	53.192	73.453
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• 0203882C: MD08: GMD O&M	133.705	129.281	137.896	-	137.896	143.027	139.319	142.269	145.188	Continuing	Continuing	
• 0603882C: Ballistic Missile Defense Midcourse Defense Segment	1,260.480	862.080	828.097	-	828.097	630.842	651.047	567.451	551.701	Continuing	Continuing	
• 0603914C: Ballistic Missile Defense Test	290.267	293.441	305.791	-	305.791	295.042	351.626	336.137	334.678	Continuing	Continuing	
• 0603915C: Ballistic Missile Defense Targets	517.589	563.576	410.425	-	410.425	373.203	407.909	405.458	427.508	Continuing	Continuing	
• 0604874C: Improved Homeland Defense (HLD) Interceptors	282.864	274.148	465.530	-	465.530	496.414	532.984	635.749	627.388	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
The GMD program will continue to follow testing, development, and evolutionary acquisition through incremental development. The Agency acquisition strategy ensures that the GMD components are upgraded to improve both system performance and interceptor reliability in order to retain the proven GMD contribution to the BMDS. This acquisition approach minimizes the risk of parts availability, provides opportunities for incremental capability improvements, and allows decision makers to make informed trades between cost, schedule, and performance while exploring improved operational and technological capabilities.												
GMD awarded a competitive Development and Sustainment Contract (DSC) on December 30, 2011. This contract continues development, fielding, test, systems engineering, integration, and configuration management; equipment manufacturing and upgrade; training, operations and sustainment of the GMD system and associated support facilities. The DSC emphasizes the application of performance-based tenets to provide timely high quality support of the core GMD system while reducing life cycle and long-term ownership costs. GMD's acquisition strategy for transition of the legacy content into the DSC provides uninterrupted field operations; development of both Ground Systems and Interceptor (GBI) products, including manufacturing additional interceptors to support both operations and testing; and the requirement to demonstrate war fighting capability through a rigorous ground and flight test program.												

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Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>	Project (Number/Name) MT08 / <i>Midcourse Test</i>
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Missile Defense Agency												Date: May 2017			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test				Project (Number/Name) MT08 / Midcourse Test					
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Resources - Cyber Security - Simulation Center	MIPR	Space and Missile Systems Center (SMDC) : AL	0.000	0.009	Jun 2016	0.000		0.000		-		0.000	0	0.009	0
Resources - Cyber Security - Advanced Research Center Cyber Support	C/IDIQ	COLSA Corp : AL	0.000	4.162	Jun 2016	0.000		0.000		-		0.000	0	4.162	0
Resources - Cyber Security - NSITE/GT Communications	MIPR	Aviation & Missile Research & Development : AL	0.000	0.138	Jun 2016	0.000		0.000		-		0.000	0	0.138	0
Resources - Cyber Win10 Implementation - MDDC Lab Analysis Infrastructure	C/IDIQ	Analytical Services, In. : AI	0.000	1.449	Jun 2016	0.000		0.000		-		0.000	0	1.449	0
Resources - Engineering & Analysis - Industry Support	C/CPAF	Boeing : AL	2.423	1.798	Nov 2015	0.000		0.000		-		0.000	0	4.221	0
Resources - Engineering & Analysis - OGA Support	MIPR	AMRDEC : AL	2.389	1.709	Oct 2015	0.000		0.000		-		0.000	0	4.098	0
Resources - Government Infrastructure Support, Labs, and Communications	MIPR	VAFB : CA/AL/CO	6.662	4.833	Nov 2015	6.420	Nov 2016	9.901	Nov 2017	-		9.901	Continuing	Continuing	Continuing
Resources - Prime Infrastructure Support, Labs, and Communications	C/CPAF	Boeing : AL/AK/AZ/CA/CO/OR/TX/VA	4.713	9.118	Nov 2015	7.776	Nov 2016	8.349	Nov 2017	-		8.349	Continuing	Continuing	Continuing
Flight Test Execution - Planning and Silo Refurbishment	C/CPAF	Boeing : AL/AK/AZ/CA/CO/OR/TX/VA	38.264	12.195	Nov 2015	11.649	Nov 2016	8.180	Nov 2017	-		8.180	Continuing	Continuing	Continuing
Flight Test Execution - Range, Resources, and Engineering	MIPR	VAFB/PMRF : CA/HI	15.624	12.486	Nov 2015	7.455	Nov 2016	29.426	Nov 2017	-		29.426	Continuing	Continuing	Continuing
Ground Test Execution - Ground Test-04 Campaign	C/CPAF	Boeing : AL/AK/AZ/CA/CO/TX/VA	3.355	0.000		0.000		0.000		-		0.000	0	3.355	0

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Missile Defense Agency													Date: May 2017		
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>					Project (Number/Name) MT08 / <i>Midcourse Test</i>				

Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Ground Test Execution - Ground Test-06 Campaign	C/CPAF	Boeing : AL/AK/AZ/ CA/CO/TX/VA	5.033	3.130	Nov 2015	0.258	Nov 2016	0.000		-		0.000	Continuing	Continuing	Continuing
Ground Test Execution - Ground Test-07 Campaign	C/CPAF	Boeing : AL/AK/AZ/ CA/CO/TX/VA	0.000	0.794	Nov 2015	6.128	Nov 2016	4.459	Nov 2017	-		4.459	Continuing	Continuing	Continuing
Ground Test Execution - Ground Test-08 Campaign	C/CPAF	Boeing : AL/AK/AZ/ CA/CO/TX/VA	0.000	0.000		0.000		0.091	Nov 2017	-		0.091	Continuing	Continuing	Continuing
Subtotal			78.463	51.821		39.686		60.406		-		60.406	-	-	-

Remarks N/A															
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Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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 Operations - Contract Support Services	C/CPFF	Various AL/AK/ : CA/ CO/VA	0.000	0.000		7.563	Oct 2016	6.942	Oct 2017	-		6.942	Continuing	Continuing	Continuing
Program Operations - Government Civilian Salaries	MIPR	MDA AL/ : VA	0.000	0.000		5.943	Oct 2016	6.105	Oct 2017	-		6.105	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		13.506		13.047		-		13.047	-	-	-

Remarks N/A															
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			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			78.463	51.821		53.192		73.453		-		73.453	-	-	-

Remarks N/A															
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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Missile Defense Agency												Date: May 2017						
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)								
0400 / 4					PE 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test					MT08 / Midcourse Test								
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 2016		FY 2017		FY 2018		FY 2019		FY 2020		FY 2021		FY 2022	
GM CTV-02 Plus (GM, Intercept Flight Test)					▲													
GTI-06 Part 2 (BMDS Ground Test)					◆													
GTD-06 Part 2 (BMDS Ground Test)							◆											
FTG-15 (GM, Intercept Flight Test)									△									
GTI-07a (BMDS Ground Test)									◇		◇							
GTD-07a (BMDS Ground Test)											◇							
GTI-07b (N/P) (BMDS Ground Test)											◇							
FTG-11 (IOT&E) (GM, Intercept Flight Test)											△							
GTD-07b (N/P) (BMDS Ground Test)													◇		◇			
GM CTV-03 (GM, Non-Intercept Flight Test)													△					
GTI-08 (N/P)(BMDS Ground Test)															◇		◇	
GTD-08 (N/P) (BMDS Ground Test)																	◇	
FTG-17 (IOT&E) (GM, Intercept Flight Test)																	△	
FTX-26 (SN, Target Only Flight Test)																	△	
FTG-18 (GM, Intercept Flight Test)																	△	

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Missile Defense Agency			Date: May 2017
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604887C / <i>Ballistic Missile Defense</i> <i>Midcourse Defense Segment Test</i>	Project (Number/Name) MT08 / <i>Midcourse Test</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GM CTV-02 Plus (GM, Intercept Flight Test)	2	2016	2	2016
GTI-06 Part 2 (BMDS Ground Test)	3	2016	3	2016
GTD-06 Part 2 (BMDS Ground Test)	4	2016	4	2016
FTG-15 (GM, Intercept Flight Test)	3	2017	3	2017
GTI-07a (BMDS Ground Test)	3	2017	4	2017
GTD-07a (BMDS Ground Test)	4	2017	4	2017
GTI-07b (N/P) (BMDS Ground Test)	1	2019	1	2019
FTG-11 (IOT&E) (GM, Intercept Flight Test)	4	2018	4	2018
GTD-07b (N/P) (BMDS Ground Test)	3	2019	4	2019
GM CTV-03 (GM, Non-Intercept Flight Test)	1	2020	1	2020
GTI-08 (N/P)(BMDS Ground Test)	2	2020	3	2020
GTD-08 (N/P) (BMDS Ground Test)	1	2021	1	2021
FTG-17 (IOT&E) (GM, Intercept Flight Test)	1	2021	1	2021
FTX-26 (SN, Target Only Flight Test)	3	2021	3	2021
FTG-18 (GM, Intercept Flight Test)	1	2022	1	2022

Note

Notes: CTV - Controlled Test Vehicle; GTI - Ground Test Integrated; GTD - Ground Test Distributed; GTX - Ground Test Exercise; GDEx - Global Defender Exercise; FTG - Flight Test Ground-Based Interceptor; FTO - Flight Test Operational; FTX - Flight Test Exercise

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Missile Defense Agency										Date: May 2017		
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test				Project (Number/Name) MD40 / Program Wide Support			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
MD40: Program Wide Support	-	2.798	3.289	3.304	-	3.304	3.567	3.239	3.757	3.785	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Beginning FY 2016, Program Wide Support (PWS) was proportionately allocated to Ballistic Missile Defense Midcourse Defense Segment Test. In FY 2017 and FY 2018, PWS reflects proportional changes as a result of budget changes to the Missile Defense Midcourse 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 2016	FY 2017	FY 2018	
Title: Program Wide Support Articles: Description: N/A FY 2016 Accomplishments: - Beginning in FY 2016, Program Wide Support was redistributed across RDT&E Program Elements with a proportional allocation to Ballistic Missile Defense Midcourse Defense Segment Test FY 2017 Plans: N/A FY 2018 Plans: N/A									2.798	3.289	3.304	
									-	-	-	
Accomplishments/Planned Programs Subtotals									2.798	3.289	3.304	

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Missile Defense Agency		Date: May 2017
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604887C / <i>Ballistic Missile Defense</i> <i>Midcourse 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: FY 2018 Missile Defense Agency												Date: May 2017			
Appropriation/Budget Activity 0400 / 4						R-1 Program Element (Number/Name) PE 0604887C / <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>						Project (Number/Name) MD40 / <i>Program Wide Support</i>			
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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 User Services	Reqn	Various : Multi: AL, CA, CO, VA	0.000	0.000		0.000		0.870	Aug 2018	-		0.870	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Allot	Various : MDA Multi: AL, CO, CA	0.000	2.798		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Other Agency Services (MIPRs)	MIPR	Various : Multi: AL, VA	0.000	0.000		0.416	Aug 2017	0.016	Aug 2018	-		0.016	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various : Multi: AL, VA	0.000	0.000		2.825	Aug 2017	2.103	Aug 2018	-		2.103	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support, International, and Materiel and Readiness (MIPRs)	MIPR	Naval Surface Warfare Center : VA, AL	0.000	0.000		0.000		0.249	Aug 2018	-		0.249	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	Allot	Various : Multi: AL, VA	0.000	0.000		0.048	Jun 2017	0.066	Jun 2018	-		0.066	Continuing	Continuing	Continuing
Subtotal			0.000	2.798		3.289		3.304		-		3.304	-	-	-
Remarks N/A															
			Prior Years	FY 2016	FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			0.000	2.798		3.289		3.304		-		3.304	-	-	-
Remarks N/A															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Missile Defense Agency																Date: May 2017							
Appropriation/Budget Activity 0400 / 4								R-1 Program Element (Number/Name) PE 0604887C / Ballistic Missile Defense Midcourse Defense Segment Test								Project (Number/Name) MD40 / Program Wide Support							
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 2016		FY 2017		FY 2018		FY 2019		FY 2020		FY 2021		FY 2022			
MD40 Program-Wide Support								◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇	◇		

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 Missile Defense Agency			Date: May 2017
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604887C / <i>Ballistic Missile Defense</i> <i>Midcourse 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	2022