Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Missile Defense Agency	Date: May 2017
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604874C *I Improved Homeland Defense (HLD) Interceptors*

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	97.739	282.864	274.148	465.530	-	465.530	496.414	532.984	635.749	627.388	Continuing	Continuing
MD97: *Improved HD Interceptors*	97.739	270.780	260.543	448.160	-	448.160	472.098	506.467	603.371	596.701	Continuing	Continuing
MD40: *Program Wide Support*	-	12.084	13.605	17.370	-	17.370	24.316	26.517	32.378	30.687	Continuing	Continuing

Program MDAP/MAIS Code: 362

Note

Increase from FY 2017 to FY 2018 is due to buildup of Redesigned Kill Vehicle (RKV) components and extensive testing in support of component level and system level Critical Design Reviews (CDR) as well as additional funding to continue the RKV Alternative Seeker development effort.

A. Mission Description and Budget Item Justification

The Ground-based Midcourse Defense (GMD) element of the Ballistic Missile Defense System (BMDS) provides combatant commanders with a continuously available (24 hours a day, 365 days a year) capability to defend the Homeland against limited Intercontinental Ballistic Missile (ICBM) attacks. The improved Homeland Defense interceptor includes a Redesigned Kill Vehicle (RKV), an improved booster (C3), and All Up Round (AUR) engineering necessary to integrate the RKV with new and existing booster configurations. The RKV improves interceptor reliability, reduces unit cost, improves maintainability in the field, and improves performance against emerging threats.

The C3 booster improves survivability against lightning and threat environments. AUR engineering enables an initial operational capability of RKV integration with existing C1 and C2 boosters and flight testing. When C3 development completes, AUR engineering enables full operational capability of RKV integration with the C3 booster.

B. Program Change Summary ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	278.944	274.148	321.441	-	321.441
Current President's Budget	282.864	274.148	465.530	-	465.530
Total Adjustments	3.920	0.000	144.089	-	144.089
• 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	-6.079	0.000			
• Other Adjustment	0.000	0.000	144.089	-	144.089

Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Missile Defense Agency	Date: May 2017
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604874C *I Improved Homeland Defense (HLD) Interceptors*

Change Summary Explanation

The increase in FY2018 from PB17 to PB18 reflects a buildup of RKV components and extensive testing in support of component level and system level Critical Design Reviews (CDR), additional funding to continue the RKV Alternative Seeker development effort and to begin work to ensure no fewer than 44 GBIs are deployed through the FYDP.

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	Project (Number/Name) MD97 / *Improved HD Interceptors*	

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
MD97: *Improved HD Interceptors*	97.739	270.780	260.543	448.160	-	448.160	472.098	506.467	603.371	596.701	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Increase from FY 2017 to FY 2018 is due to buildup of RKV components and extensive testing in support of component level and system level Critical Design Reviews (CDR) as well as additional funding to continue the RKV Alternative Seeker development effort.

A. Mission Description and Budget Item Justification

The Ground-based Midcourse Defense (GMD) element of the Ballistic Missile Defense System (BMDS) provides combatant commanders with a continuously available (24 hours a day, 365 days a year) capability to defend the Homeland against limited Intercontinental Ballistic Missile (ICBM) attacks. The improved Homeland Defense interceptor includes a Redesigned Kill Vehicle (RKV, an improved booster (C3, and All Up Round (AUR engineering necessary to integrate the RKV with new and existing booster configurations. The Redesigned Kill Vehicle (RKV) improves interceptor reliability, reduces unit cost, improves maintainability in the field, and improves performance against emerging threats. The C3 booster improves survivability against lightning and threat environments. AUR engineering enables an initial operational capability of RKV integration with existing C1 and C2 boosters and flight testing. When C3 development completes, AUR engineering enables full operational capability of RKV integration with the C3 booster.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018
Title: Improved Homeland Defense (HLD) Interceptor Development	257.898	247.124	435.934
Articles:	-	-	-
Description: HLD development objectives include: redesigning the GMD kill vehicle, implementing tactical booster modifications, and conducting All-Up Round (AUR) system engineering. The RKV will be built with a modular, open architecture and designed with common interfaces and standards, making upgrades easier and broadening MDA's vendor and supplier base. The design for growth allows future upgradability. The Configuration 3 integrated boost vehicle will incorporate enhanced lightning protection, power transient protection, and survivability enhancements. The AUR development approach integrates the RKV with three different 3-stage boost vehicle configurations: C1, C2, and C3. The goal of all of these efforts is to develop and field an integrated set of capabilities to improve the reliability, lethality, and discrimination to defeat future threats, and to begin work to ensure no fewer than 44 GBIs are deployed through the FYDP			
FY 2016 Accomplishments: -Completed System Requirements Review (SRR) including objective evidence documentation and analysis -Continued to provide Task Instructions to enable Industry Team development of RKV hardware -Continued material purchases in support of development activities, design verification testing and initial flight testing -Continued material purchases in support of hardware-in-the-loop capability at the RKV Development Laboratory (RDL)			

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD97 / *Improved HD Interceptors*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018
-Completed component-level and system SRRs -Initiated preparations for Preliminary Design Reviews (PDRs) and system-level PDR -Initiated development of special tooling and other special test equipment -Ordered long lead hardware for Design Verification Testing -Initiated Electromagnetic Environmental Effects (E3) testing, thermal testing, vibration and shock environments testing and Highly Accelerated Lifecycle Testing as part of the Design Verification Testing program -Continued requirements development, engineering analysis, capability integration, and performance verification for RKV development -Initiated modeling and simulation development and integration to assess component and system performance in support of annual technical assessments			
FY 2017 Plans: -Continue long lead material purchases for qualification and flight test articles in order to support early testing and evaluation to ensure RKV meets reliability, producibility, modularity and performance requirements -Initiate testing and development efforts associated with the RKV design to include module design verification, qualification, and survivability tests, integrated kill vehicle qualification tests, and BMDS ground tests -Continue development of kill vehicle algorithms and software, and conduct software independent verification and validation testing at contractor and government facilities -Continue development, conduct design reviews, and begin acquisition of qualified long lead items for the integrated 3-Stage boost vehicle, Configuration 3 (C3) that incorporates enhanced lightning protection; power transient protection, survivability enhancements, and a system selectable 2-stage mode capability for integration into the operational fleet -Initiate the Post-Intercept Assessment (PIA) capability, which will allow the warfighter to know whether engagements were successful, modify firing doctrine as needed, and determine whether or not to re-engage. Implementation of PIA could reduce the number of GBIs required to defeat a threat -Continue AUR development and build two flight test units to support the testing and fielding of RKV and C3 equipped interceptors -Continue requirements development, engineering analysis, capability integration, and performance verification for RKV development -Continue modeling and simulation development and integration to assess component and system performance in support of annual technical assessments			
FY 2018 Plans: -Increase from FY 2017 to FY 2018 is due to buildup of RKV components and extensive testing in support of component level and system level Critical Design Reviews (CDR), additional funding to continue the RKV Alternative Seeker development effort, and to begin work to ensure no fewer than 44 GBIs are deployed through the FYDP			

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD97 / *Improved HD Interceptors*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018
-Complete module and payload critical design reviews to establish the product baseline to ensure the RKV has a reasonable expectation of satisfying the RKV Performance Specification -Conduct an initial IFICS End-to-End Test to demonstrate preliminary communication capability between the RKV and the GMD Ground System -Conduct Integrated Communications Radio KV to KV Integration to demonstrate and validate the design approach of the new RKV communication capability -Conduct Production Highly Accelerated Life Testing to support RKV reliability improvements, identify stable operating and destruct limits, and improve the probability of first pass success during qualification -Conduct KV to KV Antenna demonstrations to characterize engineering parameters, gather data and validate the design approach of the new RKV communication capability -Complete buildup of the qualification unit for testing to demonstrate satisfaction of design requirements to support readiness for flight test and manufacturing -Continue modeling and simulation development and integration to assess RKV performance in preparation for flight test and support of GMD and BMDS assessments -Continue development of kill vehicle algorithms and software, and conduct software independent verification and validation testing at contractor and government facilities to conduct independent testing and analysis ensuring the RKV software meets its requirements and that the delivered software system satisfies requirements, the intended use, and warfighter needs -Continue AUR systems engineering to support the testing and fielding of RKV and C1, C2, and C3 equipped interceptors in order to support an uninterrupted fleet of 44 emplaced GBIs for the warfighter -Complete AUR Preliminary Design and Critical Design and support development of the first RKV flight test (CTV-03) to demonstrate RKV integration and performance in flight test			
Title: Program Operations	12.882	13.419	12.226
Articles:	-	-	-
Description: Program Operations provides for integrated program management of the Improved Homeland Defense Interceptor efforts. Included in this effort are program and business management, program administration, technical and testing oversight, verification of hardware and software development, quality / safety / mission assurance, integrated logistics support, and government manpower and infrastructure to develop, test and sustain the RKV.			
FY 2016 Accomplishments: -Performed technical and business management support, financial management, cost and schedule performance analysis, cost estimation and analysis, configuration management, and integration activities to ensure the program meets cost, schedule, and performance goals			

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD97 / *Improved HD Interceptors*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018
-Ensured Ground-based Midcourse Defense (GMD) RKV program compliance with internal and external direction, policies, and regulations to deliver critical capability via a consistent and disciplined process -Provided a Mission Assurance and Manufacturing Engineering Program to include quality, configuration management, manufacturing, engineering, and safety in all phases of the system life cycle, throughout the supply chain, and at all levels of assembly emphasizing high yield rates which minimize test and rework costs -Completed development of a system Work Breakdown Structure ***FY 2017 Plans:*** -Provide technical and business management support, financial management, cost and schedule performance analysis, cost estimation and analysis, configuration management, and integration activities, to ensure the program meets cost, schedule, and performance goals -Ensure Ground-based Midcourse Defense (GMD) RKV program compliance with internal and external direction, policies, and regulations to deliver critical capability via a consistent and disciplined process -Provide a Mission Assurance and Manufacturing Engineering Program to include quality, configuration management, manufacturing, engineering, and safety in all phases of the system life cycle, throughout the supply chain, and at all levels of assembly emphasizing high yield rates which minimize test and rework costs ***FY 2018 Plans:*** -Decrease from FY 2017 to FY 2018 reflects reduced contract spending for Mission Support Services in accordance with Department Service Requirement Review Board reductions through increased competition. -Provide technical and business management support, financial management, cost and schedule performance analysis, cost estimation and analysis, configuration management, and integration activities, to ensure the program meets cost, schedule, and performance goals -Ensure Ground-based Midcourse Defense (GMD) RKV program compliance with internal and external direction, policies, and regulations to deliver critical capability via a consistent and disciplined process -Provide a Mission Assurance and Manufacturing Engineering Program to include quality, configuration management, manufacturing, engineering, and safety in all phases of the system life cycle, throughout the supply chain, and at all levels of assembly emphasizing high yield rates which minimize test and rework costs			
Accomplishments/Planned Programs Subtotals	270.780	260.543	448.160

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD97 / *Improved HD Interceptors*

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*	0.000	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
• 0604887C: *Ballistic Missile Defense Midcourse Defense Segment Test*	54.619	56.481	76.757	-	76.757	74.205	69.713	77.826	79.094	Continuing	Continuing

Remarks

D. Acquisition Strategy

MDA is executing an acquisition strategy to develop an integrated RKV with a Cross-Industry team design solution. This concept includes potential production sources from industry and provides a consolidated product that includes the collective knowledge of and leverages capabilities from the industry leaders in kill vehicle design and development. The industry teaming method incorporates the most viable technical approaches from each contractor and allows for combination of resources to shorten the learning curve and reduce the time needed to develop and begin initial production. This strategy allows for industry to provide the best value and best design solution for the MDA while setting the conditions for future competition of production. The development phase is followed by initial production and then a competitive full rate production phase. The competitive production phase encompasses the purchase, production, and the integration of the proven components demonstrated in the development phase and provides competitive benefits to the Government. This strategy allows for industry to provide the best value and best design solution for the MDA while setting the conditions for future competition of production. The Government, as the design authority, retains responsibility for the execution of the program cost, schedule, and the technical performance of the RKV to meet requirements levied on the contractor. The Government has implemented a rigorous systems engineering process to ensure that the design and development efforts meet requirements. The MDA goal is to field the initial production RKVs to recap existing CE-I GBIs and support follow-on BMDS test events by FY2022. This acquisition strategy is documented in the RKV Acquisition Plan signed by the Defense Acquisition Executive in October 2015.

E. Performance Metrics

N/A

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD97 / *Improved HD Interceptors*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Operations - Contract Support Services	C/CPFF	Various AL/AK/ : CA/ CO/VA	4.510	7.053	Oct 2015	6.141	Oct 2016	6.101	Oct 2017	-		6.101	Continuing	Continuing	Continuing
Program Operations - FFRDC Support	MIPR	MIT : LL AL	1.138	1.994	Nov 2015	1.501	Nov 2016	0.426	Nov 2017	-		0.426	Continuing	Continuing	Continuing
Program Operations - Government Civilian Salaries	MIPR	MDA : AL/VA	1.714	2.144	Oct 2015	3.363	Oct 2016	2.428	Oct 2017	-		2.428	Continuing	Continuing	Continuing
Program Operations - Other Government Agencies	MIPR	Various AL/VA : FL/ CO	1.767	1.411	Oct 2015	2.043	Oct 2016	2.996	Oct 2017	-		2.996	Continuing	Continuing	Continuing
Program Operations - Prior year no longer funded in the FYDP	Various	Various : Various	0.552	0.000		0.000		0.000		-		0.000	0	0.552	0
Program Operations - Travel	MIPR	MDA : AL/VA	0.180	0.280	Oct 2015	0.371	Oct 2016	0.275	Oct 2017	-		0.275	Continuing	Continuing	Continuing
		Subtotal	9.861	12.882		13.419		12.226		-		12.226	-	-	-

Remarks

N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Improved Homeland Defense (HLD) Interceptor Development - Configuration 3 Booster Development	C/CPIF	Boeing AL/AK/AZ : CA/CO/TX/VA	0.000	0.000		20.802	Nov 2016	0.000		-		0.000	Continuing	Continuing	Continuing
Improved Homeland Defense (HLD) Interceptor Development - PRIME	C/CPIF	Boeing AL/AK/AZ : CA/CO/TX/VA	0.000	0.000		0.000		52.032	Nov 2017	-		52.032	Continuing	Continuing	Continuing

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD97 / *Improved HD Interceptors*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AUR System Engineering and Development															
Improved Homeland Defense (HLD) Interceptor Development - PRIME RKV Development	C/CPIF	Boeing AL/AK/AZ : CA/CO/TX/VA	51.714	246.013	Nov 2015	199.783	Nov 2016	351.371	Nov 2017	-		351.371	Continuing	Continuing	Continuing
Improved Homeland Defense (HLD) Interceptor Development - Post-Intercept Assessment	C/CPIF	Boeing AL/AK/AZ : CA/CO/TX/VA	0.000	0.000		7.650	Nov 2016	0.000		-		0.000	Continuing	Continuing	Continuing
Improved Homeland Defense (HLD) Interceptor Development - Prior year no longer funded in the FYDP	Various	Various : Various	21.114	0.000		0.000		0.000		-		0.000	0	21.114	0
Improved Homeland Defense (HLD) Interceptor Development - RKV Development Lab and System Support	MIPR	AMRDEC : Redstone Arsenal, AL	15.050	11.885	Nov 2015	18.889	Nov 2016	32.531	Nov 2017	-		32.531	Continuing	Continuing	Continuing
		Subtotal	87.878	257.898		247.124		435.934		-		435.934	-	-	-

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	97.739	270.780		260.543		448.160		-		448.160	-	-	-

Remarks

N/A

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD97 / *Improved HD Interceptors*

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

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
System Requirements Review	★																											
Preliminary Design Review (PDR)					☆																							
Key Component Critical Design Review (CDR)												☆																
Critical Design Review (CDR)													☆															
Complete Qualification Test																△												
GM CTV-03 (GM, Non-Intercept Flight Test)																	△											
FTG-17 (IOT&E) (GM, Intercept Flight Test)																					△							
FTG-18 (GM, Intercept Flight Test)																									△			

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD97 / *Improved HD Interceptors*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
System Requirements Review	1	2016	1	2016
Preliminary Design Review (PDR)	2	2017	2	2017
Key Component Critical Design Review (CDR)	4	2018	4	2018
Critical Design Review (CDR)	1	2019	1	2019
Complete Qualification Test	4	2019	4	2019
GM CTV-03 (GM, Non-Intercept Flight Test)	1	2020	1	2020
FTG-17 (IOT&E) (GM, Intercept Flight Test)	1	2021	1	2021
FTG-18 (GM, Intercept Flight Test)	1	2022	1	2022

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	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*	-	12.084	13.605	17.370	-	17.370	24.316	26.517	32.378	30.687	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Beginning in FY 2016, Program Wide Support (PWS) was proportionately allocated to Improved Homeland Defense (HLD) Interceptors. In FY 2017 and FY 2018, PWS reflects a proportional change as a result of increase in Improved Homeland Defense (HLD) Interceptors.

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 include: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; and similar operating expenses. PWS is allocated on a pro-rata basis 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	12.084	13.605	17.370
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 Homeland Defense (HLD) Interceptors			
FY 2017 Plans: N/A			
FY 2018 Plans: N/A			
Accomplishments/Planned Programs Subtotals	12.084	13.605	17.370

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD40 / *Program Wide Support*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD40 / *Program Wide Support*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Wide Support - Agency Facilities and Maintenance (MIPR)	MIPR	Various : Multi: AL, VA	0.000	4.368		4.889	Mar 2017	4.503	Mar 2018	-		4.503	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations Management	Various	Various : Multi: AL, VA	0.000	0.000		0.262	Jul 2017	0.430	Jul 2018	-		0.430	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Other Agency Services (MIPRs)	MIPR	Various : Multi: AL, VA	0.000	0.000		0.000		4.677	May 2018	-		4.677	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various : Multi: AL, VA	0.000	7.716		8.454	Jul 2017	7.760	Jul 2018	-		7.760	Continuing	Continuing	Continuing
		Subtotal	0.000	12.084		13.605		17.370		-		17.370	-	-	-

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	12.084		13.605		17.370		-		17.370	-	-	-

Remarks

N/A

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD40 / *Program Wide Support*

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

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
MD40 Program-Wide Support	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧	✧

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 0604874C / *Improved Homeland Defense (HLD) Interceptors*	**Project (Number/Name)** MD40 / *Program Wide Support*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MD40 Program-Wide Support	1	2016	4	2022