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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604874C I <i>Improved Homeland Defense Interceptors</i>
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	1,778.393	514.062	860.384	926.125	-	926.125	-	-	-	-	-	-
MD15: <i>Risk Reduction</i>	-	155.000	200.000	0.000	-	0.000	-	-	-	-	-	-
MD80: <i>Next Generation Interceptor Development (NGI)</i>	-	310.000	634.005	890.206	-	890.206	-	-	-	-	-	-
MD97: <i>Improved HD Interceptors</i>	1,716.064	35.643	0.000	0.000	-	0.000	-	-	-	-	-	-
MD40: <i>Program Wide Support</i>	62.329	13.419	26.379	35.919	-	35.919	-	-	-	-	-	-

**Program MDAP/MAIS Code:** 362

**Note**

FY 2020 does not include the enacted rescission of \$214.0 million. The increase from FY 2021 to FY 2022 provides for two contractors through Critical Design Review (CDR) to develop the Next Generation Interceptor (NGI) and maximize the likelihood of delivering this critical capability at the earliest possible opportunity. It supports award of the NGI Competitive Development and key NGI Program enablers such as Operations, Government Labs and Analysis, and Modeling and Simulations (M&S) serving as critical risk reduction capabilities for the earliest delivery of an NGI operational deployment. The increase is also due to refinement of initial government estimates based on early information from the NGI solicitation and proposals.

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

The Improved Homeland Defense Interceptor Program Element will deliver a NGI for Homeland Defense, resulting in fulfillment of the warfighter's needs and enhancement of homeland defense. USNORTHCOM develops Operational Needs for the NGI. The NGI acquisition covers the development, integration and testing of an All Up Round (AUR) boost vehicle/ kill vehicle system capable of surviving both the natural and hostile environments while countering the allocated threats. The NGI will provide the Warfighter a cost-effective solution that is lethal across the specified threat space and extensible to address future and evolving threats. The Government issued a Request for Proposal in FY 2020 for an NGI acquisition, which covers the development, integration and testing of an AUR boost vehicle/ kill vehicle system.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2022 Missile Defense Agency	<b>Date:</b> May 2021
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<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0604874C I <i>Improved Homeland Defense Interceptors</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>
Previous President's Budget	515.000	664.138	921.349	-	921.349
Current President's Budget	514.062	860.384	926.125	-	926.125
Total Adjustments	-0.938	196.246	4.776	-	4.776
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-6.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	202.246			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.938	0.000			
• Missile Defeat and Defense Enhancement	0.000	0.000	0.000	-	0.000
• Other Adjustment	0.000	0.000	4.776	-	4.776

**Change Summary Explanation**

FY 2020 does not include the enacted rescission of \$214.0 million.

Increase in FY 2021 provides the enacted congressional net increase of \$196.246 million. \$200.000 million increase provides for GMD risk reduction and \$2.246 million provides a portion of the undistributed congressional add to restore Defense Wide Review (DWR) Missile Defense Agency manpower reductions. FY 2021 also reflects the \$6.000 million congressional reduction for Next Generation Interceptor contract award delay.

Increase in FY 2022 funds the NGI program to the OSD CAPE ICE, provides two contractors through CDR to develop the NGI and maximizes the likelihood of delivering this critical capability at the earliest possible opportunity. It supports award of the NGI Competitive Development and key NGI Program enablers such as Operations, Government Labs and Analysis, and M&S, serving as critical risk reduction capabilities for the earliest delivery of an NGI operational deployment.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors	<b>Project (Number/Name)</b> MD15 / Risk Reduction
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
MD15: Risk Reduction	-	155.000	200.000	0.000	-	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

The FY 2020 Congressional Plus-up for Pre-NGI Risk reduction homeland defense capabilities was realigned from MD80 to MD15. The \$200 million FY 2021 Congressional increase provides GMD program risk reduction activities during the design and development phase of the NGI program.

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

Risk Reduction for enhancing existing homeland defense against near- and mid-term threats that focuses on the entire GMD Weapon System ensures optimal operation and warfighting capability.

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

	FY 2020	FY 2021	FY 2022
<b>Title:</b> Risk Reduction	155.000	200.000	0.000
<b>Articles:</b>	-	-	-
<b>Description:</b> Risk Reduction for enhancing existing homeland defense and post-NGI fielding capabilities against near- and mid-term threats. Funding used to build up payload for flight test Boost Vehicle Test (BVT)-03, integrate a Ground Based Interceptor (GBI) from available components, update software to bring mid-term discrimination capabilities to the Capability Enhancement-I fleet, install enhanced maintenance built-in testing equipment, install improved high-altitude electromagnetic pulse (HEMP) protection improvements, implement digital engineering plan, complete improved lethality engineering, and improved survivability modeling.			
<b>FY 2021 Plans:</b> -Risk reduction activities are undergoing continual technical assessments and refinements including reliability and performance improvements to the GMD weapon system and the expansion of GMD SLEP -Enables critical program risk reduction activities during the design and development phase of the NGI program			
<b>FY 2022 Plans:</b> N/A			
<b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> The funding in FY 2021 is a Congressional Plus Up (CPU) for enhancing existing homeland defense against near- and mid-term threats that focuses on the entire GMD Weapon System ensures optimal operation and warfighting capability.			
<b>Accomplishments/Planned Programs Subtotals</b>	155.000	200.000	0.000

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency	<b>Date:</b> May 2021
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<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors	<b>Project (Number/Name)</b> MD15 / Risk Reduction
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603882C: <i>Ballistic Missile Defense Midcourse Defense Segment</i>	1,275.414	1,219.261	745.144	-	745.144	-	-	-	-	-	-
• 0604874C: <i>Improved Homeland Defense Interceptors</i>	514.062	860.384	926.125	-	926.125	-	-	-	-	-	-
• 0604887C: <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>	96.711	67.071	61.424	-	61.424	-	-	-	-	-	-

**Remarks**

**D. Acquisition Strategy**

N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors	<b>Project (Number/Name)</b> MD15 / Risk Reduction
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Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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			
Risk Reduction - Risk Reduction - Risk Reduction	C/CPIF	Various : Various	0.000	155.000	Sep 2020	200.000	Jun 2021	0.000		-		0.000	0.000	355.000	0.000
<b>Subtotal</b>			0.000	155.000		200.000		0.000		-		0.000	0.000	355.000	N/A

**Remarks**  
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	155.000	200.000	0.000	-	0.000	0.000	355.000	N/A

**Remarks**  
N/A

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**Exhibit R-4, RDT&E Schedule Profile:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD15 / <i>Risk Reduction</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 2020		FY 2021		FY 2022		FY 2023		FY 2024		FY 2025		FY 2026	
Risk Reduction - Risk Reduction FY 2020					◆	◆	◆	◆										
Risk Reduction - Risk Reduction FY 2021									◇	◇	◇	◇						

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD15 / <i>Risk Reduction</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Risk Reduction - Risk Reduction FY 2020	1	2020	4	2020
Risk Reduction - Risk Reduction FY 2021	1	2021	4	2021

**Note**

Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency										<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 0400 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors				<b>Project (Number/Name)</b> MD80 / Next Generation Interceptor Development (NGI)			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
MD80: Next Generation Interceptor Development (NGI)	-	310.000	634.005	890.206	-	890.206	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

The increase from FY 2021 to FY 2022 funds the program to the OSD CAPE ICE for two contractors through CDR to develop the NGI and supports funding for the NGI Program Operations and Government Labs. It supports award of the NGI Competitive Development and key NGI Program enablers such as Operations, Government Labs and Analysis, and M&S. This serves as critical risk reduction capability for the USNORTHCOM developed Operational Needs for the NGI, as GM develops, produces, fields, and delivers this capability while meeting the cost, schedule, and performance parameters. The increase is also due to refinement of initial government estimates based on early information from the NGI solicitation and proposals. (Note, NGI FYDP program funding is also included in Program Elements 0603915C, Targets and 0603914C, BMD Test).

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

The Improved Homeland Defense Interceptor Program Element will deliver an NGI for Homeland Defense. The NGI acquisition covers the development, integration and testing of an AUR boost vehicle (BV)/ kill vehicle (KV) system capable of surviving both the natural and hostile environments while countering the allocated threats. NGI is the most important requirement for the warfighters and supports the National Security and Military strategies. The NGI will provide the Warfighter a cost-effective solution that is lethal across the specified threat space and extensible to address future and evolving threats. The Government issued a Request for Proposal in FY 2020 for an NGI acquisition, which covers the development, integration and testing of an AUR boost vehicle/ kill vehicle system. The Government is using two contractors through CDR to develop the NGI.

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

	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<b>Title:</b> Next Generation Interceptor Development (NGI)	303.317	622.991	869.612
<b>Articles:</b>	-	-	-
<b>Description:</b> The Improved Homeland Defense Interceptor Program Element will deliver an NGI for Homeland Defense. The NGI has improved survivability against natural and hostile environments and increases performance capability against 2030 threats compared to the currently fielded GBIs.			
Recurring efforts include:			
-Continue the design, development, and parts testing of the NGI payload and boost vehicle utilizing two prime contractors			
-Continue activities to support achieving Knowledge Point #1 exit criteria, successful completion of the Preliminary Design Review. These activities include:			
-Continue purchase and initiate testing of NGI parts and initiate testing to gain early confidence in NGI design			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD80 / <i>Next Generation Interceptor Development (NGI)</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p>-Continue Parts, Materials, and Processes Board Requirements (PMPCB) approval for all parts -Continue to initiate efforts to improve battlespace and threat containment requirement analysis</p> <p><b>FY 2021 Plans:</b> -Design, develop, and test the NGI payload and boost vehicle utilizing two prime contractors -Complete System Requirements Review (SRR) to establish the functional baseline for the NGI design -Initiate activities to support achieving Knowledge Point #1 exit criteria, successful completion of the Preliminary Design Review. These activities include: -Complete interceptor, boost vehicle- and kill vehicle-level SRRs -Initiate purchase of NGI parts and initiate testing to gain early confidence in NGI design -Initiate Parts, Materials, and Processes Board Requirements (PMPCB) approval for all parts -Initiate battlespace and threat containment requirement analysis</p> <p><b>FY 2022 Plans:</b> - Initiate purchase of long-lead materials for the initial AUR test articles - Purchase of NGI parts and testing to gain early confidence in NGI design and development by building in reliability into design - Purchase of NGI parts and testing to continue initiation of battlespace and threat containment requirement analysis</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> The increase from FY 2021 to FY 2022 funds the program to the OSD CAPE ICE and provides an increase to support two contractors through CDR to develop the NGI and maximizes the likelihood of delivering this critical capability at the earliest possible opportunity. It supports award of the NGI Competitive Development and key NGI Program enablers such as Operations, Government Labs and Analysis, and Modeling &amp; Simulations, serving as critical risk reduction capabilities for the earliest delivery of an NGI operational deployment.</p>				
<b>Title:</b> Program Operations		6.683	11.014	20.594
		<b>Articles:</b> -	-	-
<b>Description:</b> Program Operations provides for integrated program management of the Improved HD Interceptor efforts including: -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 -GMD NGI program compliance with internal and external direction, policies, and regulations to deliver critical capability via a consistent and disciplined process				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD80 / <i>Next Generation Interceptor Development (NGI)</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
<p>-Mission Assurance and Manufacturing Engineering processes 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</p> <p>-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 NGI</p> <p>Specific and/or unique accomplishments to each FY are as follows:</p> <p><b>FY 2021 Plans:</b> -SEE ABOVE.</p> <p><b>FY 2022 Plans:</b> -SEE ABOVE.</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY 2021 to FY 2022 provides for technical risk mitigation leading to CDR. Funding supports required increased technical and programmatic subject matter expertise, Other Government Agency (OGA) reviews and subject matter expertise for preliminary design validation and verification efforts. Funding also supports inclusion of Digital Engineering, Software Development, Security and Operations (DevSecOps), and Model Based Systems Engineering (MBSE) initiatives to reduce cost, schedule and performance risk in program execution for the competitive effort.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	310.000	634.005	890.206

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 0208866C: MD08: <i>BMD Midcourse Defense O&amp;M</i>	152.235	148.749	156.623	-	156.623	-	-	-	-	-	-
• 0208866C: MD08: <i>GMD Procurement</i>	285.471	150.000	0.000	-	0.000	-	-	-	-	-	-
• 0603882C: <i>Ballistic Missile Defense Midcourse Defense Segment</i>	1,275.414	1,219.261	745.144	-	745.144	-	-	-	-	-	-

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**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD80 / <i>Next Generation Interceptor Development (NGI)</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0604874C: <i>Improved Homeland Defense Interceptors</i>	514.062	860.384	926.125	-	926.125	-	-	-	-	-	-
• 0604887C: <i>Ballistic Missile Defense Midcourse Defense Segment Test</i>	96.711	67.071	61.424	-	61.424	-	-	-	-	-	-

**Remarks**

**D. Acquisition Strategy**

Acquisition strategy includes a competitive source selection to develop and test an AUR interceptor to meet Warfighter requirements and defeat the 2030+ threat. MDA has established multiple knowledge points and flight tests to evaluate component and system performance during development, followed by production decisions. The Government plans to utilize two contractors through CDR to develop the NGI and maximize the likelihood of delivering this critical capability at the earliest possible opportunity.

NGI is the first of the contract actions submitted as part of the new strategy roadmap. This is a new, competitive effort independent of the Development and Sustainment Contract (DSC). The goal of NGI is to design, develop, test, and field a new generation of Midcourse Defense interceptors to meet the increasing demands of adversary threats in terms of capability and capacity. NGI tenets include robust design efforts to address lifecycle sustainability and viability. The NGI contract will oversee the fielding of a new, improved interceptor along with any modifications to the missile silos needed to integrate into the GMD enterprise.

The NGI effort will include, but is not limited to, systems engineering, hardware, software, and firmware development, manufacture, integration and checkout/test, and delivery of NGI's, culminating in three (3) intercept flight tests. Based on successful capability demonstration during flight tests, MDA will seek approval from the Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)) to proceed with procurement of operational AURs.

The NGI will be an integrated capability of the greater ground-based element and will provide a fully qualified, production representative NGI AUR. It will be the cognizant authority of the ground-based integrator to assume interoperability and systems integration once the NGI AUR is accepted by the Government. The NGI will be constrained to the existing silo dimensions. Industry will propose all changes required to the weapon system interfaces and to silo infrastructure to support their proposed solution in their competitive proposals. All equipment from the silo wall inward is available trade space. Any future interface changes will be coordinated with the ground-based integrator, approved by the Government, and flowed to the GMD contract(s) via contract modification.

The NGI awarded two best value contracts on March 24, 2021. MDA competitively awarded two contracts for the NGI and plans to maintain competition through the CDR in FY 2025.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors	<b>Project (Number/Name)</b> MD80 / Next Generation Interceptor Development (NGI)
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<b>Product Development (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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			
Next Generation Interceptor Development (NGI) - NGI Development	C/CPIF	Lockheed-Martin, Northrop-Grumman : AL	0.000	302.429	Mar 2021	617.864	Mar 2021	849.383	Nov 2021	-		849.383	Continuing	Continuing	Continuing
Next Generation Interceptor Development (NGI) - NGI Development Lab & System Support	C/CPIF	Lockheed-Martin, Northrop-Grumman : AL	0.000	0.888	Mar 2021	5.127	Mar 2021	0.000		-		0.000	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	303.317		622.991		849.383		-		849.383	Continuing	Continuing	N/A

**Remarks**  
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

<b>Support (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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			
Next Generation Interceptor Development (NGI) - NGI Development	C/CPIF	Lockheed-Martin, Northrop-Grumman : AL	0.000	0.000		0.000		15.000	Mar 2022	-		15.000	Continuing	Continuing	Continuing
Next Generation Interceptor Development (NGI) - NGI Development Lab & System Support	C/CPIF	CCDC, Torch Technologies Inc. : AL	0.000	0.000		0.000		5.229	Mar 2022	-		5.229	Continuing	Continuing	Continuing
Program Operations - Contract Support Services	C/CPFF	Various : AL/AK/ CA/ CO/VA	0.000	5.070	Oct 2019	5.885	Oct 2020	0.000		-		0.000	Continuing	Continuing	Continuing
Program Operations - Government Civilian Salaries	MIPR	MDA : AL/VA	0.000	1.613	Oct 2019	4.640	Oct 2020	8.064	Oct 2021	-		8.064	Continuing	Continuing	Continuing
Program Operations - Government Travel	MIPR	MDA : AL/VA	0.000	0.000		0.489	Oct 2020	0.499	Oct 2021	-		0.499	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	6.683		11.014		28.792		-		28.792	Continuing	Continuing	N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors	<b>Project (Number/Name)</b> MD80 / Next Generation Interceptor Development (NGI)
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<b>Support (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

**Remarks**  
N/A

<b>Management Services (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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 Operations - Contract Support Services	C/CPFF	A.I. Solutions, APT Research, BCF Solutions, Parsons, Venturi, Yorktown, Veterans Tech, MacAulay-Brown, TBD : AL	0.000	0.000		0.000		12.031	Oct 2021	-		12.031	Continuing	Continuing	Continuing
<b>Subtotal</b>			0.000	0.000		0.000		12.031		-		12.031	Continuing	Continuing	N/A

**Remarks**  
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	310.000	634.005	890.206	-	890.206	Continuing	Continuing	N/A

**Remarks**  
\$5,229 for Next Generation Interceptor Development - NGI Development and Lab Support moved from Product Development to Product Support to correct the cost category.  
\$12,031 for Program Operations, Contract Support Services moved from Product Support to Management Services to correct the cost category.  
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2022 Missile Defense Agency						<b>Date:</b> May 2021									
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>				<b>Project (Number/Name)</b> MD80 / <i>Next Generation Interceptor Development (NGI)</i>							
Significant Event Complete ▲	Milestone Decision Complete ★	Element Test Complete ◆	System Level Test Complete ●	Complete Activity ◆	Significant Event Planned △	Milestone Decision Planned ☆	Element Test Planned ◇	System Level Test Planned ○	Planned Activity ◇						
Next Generation Interceptor				FY 2020	FY 2021		FY 2022		FY 2023	FY 2024		FY 2025		FY 2026	
					◇	◇	◇	◇							

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD80 / <i>Next Generation Interceptor Development (NGI)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Next Generation Interceptor	2	2021	4	2022

**Note**

Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors	<b>Project (Number/Name)</b> MD97 / Improved HD Interceptors
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
MD97: Improved HD Interceptors	1,716.064	35.643	0.000	0.000	-	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

FY 2020 - FY 2025 funding was previously realigned and adjusted from MD97 Improved Homeland Defense Interceptors to MD80 NGI. Sufficient funds are available to settle RKV termination issue.

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

The improved Homeland Defense interceptor included a Redesigned Kill Vehicle (RKV) and the All Up Round (AUR) engineering necessary to integrate the RKV with new and existing booster configurations. The RKV program was terminated in August 2019.

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

	FY 2020	FY 2021	FY 2022
<p><b>Title:</b> Improved Homeland Defense (HLD) Interceptor Development</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> HLD Interceptor development objectives included redesigning the Ground-Based Defense (GMD) kill vehicle (KV), implementing tactical booster modifications, and conducting AUR system engineering. The RKV program was terminated in August 2019.</p> <p><b>FY 2021 Plans:</b> N/A. RKV terminated in August 2019.</p> <p><b>FY 2022 Plans:</b> N/A</p> <p><b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> N/A</p>	32.605	0.000	0.000
<p><b>Title:</b> Program Operations</p> <p align="right"><b>Articles:</b></p> <p><b>Description:</b> Program Operations provided for integrated program management of the Improved Homeland Defense Interceptor efforts.</p> <p><b>FY 2021 Plans:</b></p>	3.038	0.000	0.000

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD97 / <i>Improved HD Interceptors</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
N/A; RKV terminated August 2019.			
<b>FY 2022 Plans:</b> N/A			
<b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> N/A			
<b>Accomplishments/Planned Programs Subtotals</b>	35.643	0.000	0.000

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

<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0208866C: MD08: <i>GMD Procurement</i>	285.471	150.000	0.000	-	0.000	-	-	-	-	-	-
• 0208866C: MD08: <i>Midcourse Defense O&amp;M</i>	152.235	148.749	156.623	-	156.623	-	-	-	-	-	-
• 0603882C: <i>Ballistic</i> <i>Missile Defense Midcourse</i> <i>Defense Segment</i>	1,275.414	1,219.261	745.144	-	745.144	-	-	-	-	-	-
• 0604874C: <i>Improved</i> <i>Homeland Defense Interceptors</i>	514.062	860.384	926.125	-	926.125	-	-	-	-	-	-
• 0604887C: <i>Ballistic</i> <i>Missile Defense Midcourse</i> <i>Defense Segment Test</i>	96.711	67.071	61.424	-	61.424	-	-	-	-	-	-

**Remarks**

**D. Acquisition Strategy**

MDA executed an acquisition strategy to develop an integrated RKV with a Cross-Industry team design solution. This concept included production sources from industry and provided a consolidated product that included the collective knowledge of and leveraged capabilities from the industry leaders in kill vehicle design and development. The industry teaming method incorporated the most viable technical approach from each contractor and allowed for combination of resources to shorten the learning curve and reduce the time needed to develop and begin initial production. This strategy allowed 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 was followed by initial production and then a competitive full rate production phase. The competitive production phase encompassed the purchase, production, and the integration of the proven components demonstrated in the development phase and provided competitive benefits to the Government. This strategy allowed industry to provide the best value and best design solution for

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**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>	<b>Project (Number/Name)</b>
0400 / 4	PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	MD97 / <i>Improved HD Interceptors</i>

MDA while setting the conditions for future competition of production. The Government, as the design authority, retained 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 implemented a rigorous systems engineering process to ensure that the design and development efforts met requirements. This acquisition strategy was documented in the RKV Acquisition Plan signed by the Defense Acquisition Executive in October 2015.

In January of 2018, the MDA Director signed an Acquisition Strategy Decision Memorandum (ASDM) changing the acquisition strategy to execute the Missile Defeat and Defense Enhancement (MDDE) scope. The Development and Sustainment Contract (DSC) would continue with the Boeing Company to 1Q FY 2024 to build the 20 GBI's and 20 Silos with supporting test, engineering, software, and performance based logistics scope. The Justification and Approval for this action was signed by the MDA Director on 2 January 2018.

The RKV program was terminated in August 2019.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency												Date: May 2021			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)					
0400 / 4					PE 0604874C / Improved Homeland Defense Interceptors					MD97 / Improved HD Interceptors					
Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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
Improved Homeland Defense (HLD) Interceptor Development - GBI Consolidated Integration Facility Improvements	C/CPIF	Boeing : AL/AK/AZ	9.279	0.000		0.000		0.000		-		0.000	0.000	9.279	0.000
Improved Homeland Defense (HLD) Interceptor Development - OGA/FFRDC Booster Avionics Risk Reduction	MIPR	Draper : AL/CA	1.644	0.000		0.000		0.000		-		0.000	0.000	1.644	0.000
Improved Homeland Defense (HLD) Interceptor Development - PRIME AUR System Engineering and Development	C/CPIF	Boeing AL/AK/AZ : CA/CO/TX/VA	49.840	0.000		0.000		0.000		-		0.000	0.000	49.840	0.000
Improved Homeland Defense (HLD) Interceptor Development - PRIME RKV Development	C/CPIF	Boeing AL/AK/AZ : CA/CO/TX/VA	1,478.907	32.545	Nov 2019	0.000		0.000		-		0.000	0.000	1,511.452	0.000
Improved Homeland Defense (HLD) Interceptor Development - Post-Intercept Assessment	C/CPIF	Boeing AL/AK/AZ : CA/CO/TX/VA	0.000	0.000		0.000		0.000		-		0.000	0.000	0.000	0.000
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	0.000	21.114	0.000
Improved Homeland Defense (HLD) Interceptor Development - RKV Development Lab and System Support	MIPR	AMRDEC : Redstone Arsenal, AL	99.929	0.060	Nov 2019	0.000		0.000		-		0.000	0.000	99.989	0.000
<b>Subtotal</b>			1,660.713	32.605		0.000		0.000		-		0.000	0.000	1,693.318	N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors	<b>Project (Number/Name)</b> MD97 / Improved HD Interceptors
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Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

**Remarks**  
Termination of the RKV program in August 2019 resulted in no cost to complete/total cost/target value of contract for MD97.

Support (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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 Operations - Contract Support Services	C/CPFF	Various AL/AK / CA/CO/VA	32.420	2.604	Oct 2019	0.000		0.000		-		0.000	0.000	35.024	0.000
Program Operations - FFRDC Support	MIPR	MIT : LL AL	3.132	0.000		0.000		0.000		-		0.000	0.000	3.132	0.000
Program Operations - Government Civilian Salaries	MIPR	MDA : AL/VA	10.418	0.434	Oct 2019	0.000		0.000		-		0.000	0.000	10.852	0.000
Program Operations - Other Government Agencies	MIPR	Various AL/VA : FL/CO	8.178	0.000		0.000		0.000		-		0.000	0.000	8.178	0.000
Program Operations - Prior year no longer funded in the FYDP	Various	Various : Various	0.552	0.000		0.000		0.000		-		0.000	0.000	0.552	0.000
Program Operations - Travel	MIPR	MDA : AL/VA	0.651	0.000		0.000		0.000		-		0.000	0.000	0.651	0.000
<b>Subtotal</b>			55.351	3.038		0.000		0.000		-		0.000	0.000	58.389	N/A

**Remarks**  
Termination of the RKV program in August 2019 results in no cost to complete/total cost/target value of contract for MD97.

	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	1,716.064	35.643	0.000	0.000	-	0.000	0.000	1,751.707	N/A

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2022 Missile Defense Agency							<b>Date:</b> May 2021			
<b>Appropriation/Budget Activity</b> 0400 / 4			<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>			<b>Project (Number/Name)</b> MD97 / <i>Improved HD Interceptors</i>				
	<b>Prior Years</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022 Base</b>	<b>FY 2022 OCO</b>	<b>FY 2022 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	

**Remarks**  
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2022 Missile Defense Agency						<b>Date:</b> May 2021									
<b>Appropriation/Budget Activity</b> 0400 / 4				<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>				<b>Project (Number/Name)</b> MD97 / <i>Improved HD Interceptors</i>							
Significant Event Complete ▲	Milestone Decision Complete ★	Element Test Complete ◆	System Level Test Complete ●	Complete Activity ◆	Significant Event Planned △	Milestone Decision Planned ☆	Element Test Planned ◇	System Level Test Planned ○	Planned Activity ◇						
RKV Terminated August 2019				▲											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD97 / <i>Improved HD Interceptors</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
RKV Terminated August 2019	1	2020	1	2020

**Note**

RKV terminated August 2019. Next Generation Interceptor development was realigned to MD80. Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.

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**Exhibit R-2A, RDT&E Project Justification:** PB 2022 Missile Defense Agency **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors	<b>Project (Number/Name)</b> MD40 / Program Wide Support
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COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
MD40: Program Wide Support	62.329	13.419	26.379	35.919	-	35.919	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Note**

Program Wide Support (PWS) is allocated on a pro-rata basis across multiple Agency PEs each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.

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

PWS contains non-headquarters management costs in support of MDA functions and activities across the entire MDS. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the MDS as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes personnel to support global deployments performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations worldwide. 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 across multiple geographic locations; commercial and ancillary facility services; management of all facility aspects regardless of lifecycle stage; supplies and maintenance; compliance with statutory environmental requirements; data and unified communications support; materiel and readiness and central property management of equipment; Facilities Sustainment, Restoration and Modernization (FSRM) program (formerly Real Property Maintenance) to keep the Department's inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.

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

	FY 2020	FY 2021	FY 2022
<b>Title:</b> Program Wide Support	13.419	26.379	35.919
<b>Articles:</b>	-	-	-
<b>Description:</b> PWS contains non-headquarters management costs in support of MDA functions and activities across the entire MDS. These functions include Government Civilians and Contract Support Services. This effort provides integrity and oversight of the MDS as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes personnel to support global deployments performing deployment site preparation and activation, and provides facility capabilities for MDA Executing Agent locations worldwide. Other MDA wide costs include: physical and technical security; civilian drug testing; audit readiness; the STEM program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations across multiple geographic locations; commercial and ancillary facility services; management of all facility aspects regardless of lifecycle stage; supplies and maintenance; compliance with statutory environmental requirements; data and unified communications support; materiel and readiness and central property management of equipment; the FSRM program (formerly Real Property Maintenance) to keep the Department's			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021		
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>		
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>
inventory of facilities in good working order; and similar operating expenses. PWS is allocated on a pro-rata basis across most Agency PEs and therefore fluctuates per PE by fiscal year based on the total Agency budget in that fiscal year.				
<b>FY 2021 Plans:</b> - SEE ABOVE.				
<b>FY 2022 Plans:</b> - SEE ABOVE.				
<b>FY 2021 to FY 2022 Increase/Decrease Statement:</b> Increase from FY 2021 to FY 2022 provides the PWS allocation on a pro-rata basis across multiple Agency PEs each fiscal year based on the total Agency budget, and therefore fluctuates per PE by fiscal year.				
<b>Accomplishments/Planned Programs Subtotals</b>		13.419	26.379	35.919
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / Improved Homeland Defense Interceptors	<b>Project (Number/Name)</b> MD40 / Program Wide Support
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<b>Support (\$ in Millions)</b>				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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 Facilities and Maintenance	MIPR	Various Multi : AL, VA	23.595	5.218	Nov 2019	2.492	Nov 2020	2.978	Dec 2021	-		2.978	Continuing	Continuing	Continuing
Program Wide Support - Agency Facilities and Maintenance SRM	MIPR	Various : Multi: AK, AL, CA, CO, HI, NY, VA	0.000	0.000		0.000		3.775	Dec 2021	-		3.775	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Civilian Salaries, Travel, Training	Various	Various Multi : AL, VA	0.755	0.201	Nov 2019	1.500	Nov 2020	0.000		-		0.000	0.000	2.456	0.000
Program Wide Support - Agency Operations and Support Other Agency Services	MIPR	Various Multi : AL, VA	15.086	0.000		4.450	Nov 2020	2.980	Nov 2021	-		2.980	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations and Support Services	C/CPFF	Various Multi : AL, VA	22.893	8.000	Dec 2019	17.937	Dec 2020	22.626	Nov 2021	-		22.626	Continuing	Continuing	Continuing
Program Wide Support - Agency Operations, Sustainment and GPC	C/FFP	Various : Multi: AK, AL, CA, HI, NY, VA	0.000	0.000		0.000		3.560	Dec 2021	-		3.560	Continuing	Continuing	Continuing
<b>Subtotal</b>			62.329	13.419		26.379		35.919		-		35.919	Continuing	Continuing	N/A

**Remarks**  
N/A

	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	62.329	13.419	26.379	35.919	-	35.919	Continuing	Continuing	N/A

**Remarks**  
Award Date reflects date of first obligation. Additional obligations may incrementally occur throughout the year.

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**Exhibit R-4, RDT&E Schedule Profile: PB 2022 Missile Defense Agency** **Date:** May 2021

<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>
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Significant Event Complete ▲	Milestone Decision Complete ★	Element Test Complete ◆	System Level Test Complete ●	Complete Activity ◆							
Significant Event Planned △	Milestone Decision Planned ☆	Element Test Planned ◇	System Level Test Planned ○	Planned Activity ◇							
					FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
MD40 Program-Wide Support					◇	◇	◇	◇	◇	◇	◇

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2022 Missile Defense Agency		<b>Date:</b> May 2021
<b>Appropriation/Budget Activity</b> 0400 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0604874C / <i>Improved Homeland Defense Interceptors</i>	<b>Project (Number/Name)</b> MD40 / <i>Program Wide Support</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MD40 Program-Wide Support	1	2020	4	2022

**Note**

Based on the OUSD(C) FY 2022 President's Budget Submission Guidance, fiscal years covered in the justification material will include FY 2020 through FY 2022. Planned entries in the R4 may continue past FY 2022, out-years will be addressed in future budget submissions.