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Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Army	Date: May 2021
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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604644A / <i>Mobile Medium Range Missile</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	-	4.794	88.100	286.457	-	286.457	-	-	-	-	-	-
MR1: <i>Mobile Intermediate Range Missile</i>	-	4.794	88.100	286.457	-	286.457	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Program Element (PE) 0604644A / Mobile Medium Range Missile funds the US Army Rapid Capabilities and Critical Technologies Office (RCCTO) Mid-Range Capability (MRC) effort and continues as the program transitions to the US Army Program Executive Office Missiles and Space (PEO MS). Four MRC batteries will be developed and deployed; the MRC prototype battery will be developed by RCCTO, and the three remaining MRC batteries by PEO MS. The mission of the MRC project is to provide Combatant Commanders with a strategic, ground-mobile, all-weather, offensive missile capability. The MRC Project will leverage existing SM-6 and Tomahawk missiles for ground launch, to provide a responsive, highly accurate, deep strike capability designed to destroy high value, high payoff targets. MRC is optimized for the penetration/dis-integration phase of Multi-Domain Operations (MDO) by defeating enemy Anti-Access / Area Denial (A2/AD) systems allowing the Joint Force Commander freedom to maneuver during the exploitation phase.

The MRC project leverages Joint Service technologies and integration of common hardware, software, and mutually supporting test events. MRC develops the Launchers and Battery Operations Center (BOC) which provide the capability to fire a mix of missiles capable of flying at various speeds and altitudes for mid-range distances to engage desired targets. The MRC project deliverable quantity is one residual combat MRC prototype battery consisting of four Launchers and one BOC, to be deployed NLT 4Q FY 2023 as the First Unit of Issue (FUI).

FY 2022 Base funding in the amount of \$286.457 million for Project MR1 funds the integration of design requirements to deploy the prototype battery. Base funding allows for integration and evaluation of required characteristics to ensure safe and effective operational deployment of the prototype battery. Base funding also allows for purchasing and receiving hardware and materials to implement prototype fabrication, and to support component-level and system-level qualification.

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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604644A / <i>Mobile Medium Range Missile</i>
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B. Program Change Summary (\$ in Millions)	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	5.000	0.000	0.000	-	0.000
Current President's Budget	4.794	88.100	286.457	-	286.457
Total Adjustments	-0.206	88.100	286.457	-	286.457
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	88.100			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.206	-			
• Adjustments to Budget Years	-	-	286.457	-	286.457

Change Summary Explanation

FY 2022 Base funding provides for the continuation of the design activities from FY 2021, completes the prototype fabrication of the Battery Operations Center and four Launchers and associated equipment. FY 2022 Base funding will support integration and test activities for system qualification. Additionally, FY 2022 Base funding includes the funding required for the Tomahawk missiles for the prototype battery.

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Army										Date: May 2021		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0604644A / <i>Mobile Medium Range Missile</i>				Project (Number/Name) MR1 / <i>Mobile Intermediate Range Missile</i>			
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
MR1: <i>Mobile Intermediate Range Missile</i>	-	4.794	88.100	286.457	-	286.457	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Program Element (PE) 0604644A / Mobile Medium Range Missile funds the US Army Rapid Capabilities and Critical Technologies Office (RCCTO) Mid-Range Capability (MRC) effort and continues as the program transitions to the US Army Program Executive Office Missiles and Space (PEO MS). Four MRC batteries will be developed and deployed; the MRC prototype battery will be developed by RCCTO, and the three remaining MRC batteries by PEO MS. The mission of the MRC project is to provide Combatant Commanders with a strategic, ground-mobile, all-weather, offensive missile capability. The MRC Project will leverage existing SM-6 and Tomahawk missiles for ground launch, to provide a responsive, highly accurate, deep strike capability designed to destroy high value, high payoff targets. MRC is optimized for the penetration/dis-integration phase of Multi-Domain Operations (MDO) by defeating enemy Anti-Access / Area Denial (A2/AD) systems allowing the Joint Force Commander freedom to maneuver during the exploitation phase.

The MRC project leverages Joint Service technologies and integration of common hardware, software, and mutually supporting test events. MRC develops the Launchers and Battery Operations Center (BOC) which provide the capability to fire a mix of missiles capable of flying at various speeds and altitudes for mid-range distances to engage desired targets. The MRC project deliverable quantity is one residual combat MRC prototype battery consisting of four Launchers and one BOC, to be deployed NLT 4Q FY 2023 as the First Unit of Issue (FUI).

FY 2022 Base funding in the amount of \$286.457 million for Project MR1 funds the integration of design requirements to deploy the prototype battery. Base funding allows for integration and evaluation of required characteristics to ensure safe and effective operational deployment of the prototype battery. Base funding also allows for purchasing and receiving hardware and materials to implement prototype fabrication, and to support component-level and system-level qualification.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2020	FY 2021	FY 2022
Title: Mobile Intermediate Range Missile (MIRM)	4.794	88.100	-
Description: The Program Element (PE) 0604644A / Mobile Medium Range Missile funds the US Army Rapid Capabilities and Critical Technologies Office (RCCTO) Mid-Range Capability (MRC) effort and continues as the program transitions to the US Army Program Executive Office Missiles and Space (PEO MS). Four MRC batteries will be developed and deployed; the MRC prototype battery will be developed by RCCTO, and the three remaining MRC batteries by PEO MS. The mission of the MRC project is to provide Combatant Commanders with a strategic, ground-mobile, all-weather, offensive missile capability. The MRC Project will leverage existing SM-6 and Tomahawk missiles for ground launch, to provide a responsive, highly accurate, deep strike capability designed to destroy high value, high payoff targets. MRC is optimized for the penetration/dis-integration phase			

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Army		Date: May 2021		
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604644A / <i>Mobile Medium Range Missile</i>	Project (Number/Name) MR1 / <i>Mobile Intermediate Range Missile</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
<p>of Multi-Domain Operations (MDO) by defeating enemy Anti-Access / Area Denial (A2/AD) systems allowing the Joint Force Commander freedom to maneuver during the exploitation phase.</p> <p>The MRC project leverages Joint Service technologies and integration of common hardware, software, and mutually supporting test events. MRC develops the Launchers and Battery Operations Center (BOC) which provide the capability to fire a mix of missiles capable of flying at various speeds and altitudes for mid-range distances to engage desired targets. The MRC project deliverable quantity is one residual combat MRC prototype battery consisting of four Launchers and one BOC, to be deployed NLT 4Q FY 2023 as the First Unit of Issue (FUI).</p> <p>The MRC Launcher Payload Deployment System project leverages Joint Service technologies and integration of common hardware, software, and mutually supporting test events for the MRC Payload Deployment System. MRC Launcher PDS stows and fires the two missiles, SM-6 and Tomahawk. The missiles are capable of flying at various speeds and altitudes for mid-range distances to engage desired targets. The MRC Launcher PDS Project delivers four PDSs for each MRC Battery.</p> <p>The MRC Ground Support Equipment project leverages Joint Service technologies and integration of common hardware, software, and mutually supporting test events for the Ground Support Equipment. The Ground Support Equipment includes the Battery Operations Center, prime movers, trailer, generators, cabling, and support vehicles.</p> <p>The MRC Missiles project funds Joint Service technologies and buys missiles, SM-6 and Tomahawk, needed for the operational deployment of the MRC prototype Battery. The missiles are capable of flying at various speeds and altitudes for mid-range distances to engage desired targets.</p> <p>FY 2021 Plans: This funds hardware and material, manufacturing, assembly, test, integration and checkout for the four prototype MRC launchers, and also funds hardware and material, manufacturing, assembly, test, integration, and checkout of the BOC Test Bed and the BOC prototype asset.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: In PB 21 R Form all costs in FY 2020 and FY 2021 were captured under MIRM. For PB 22 R Form additional program details were added.</p>				
<p>Title: Mid-Range Capability (MRC) Launcher Payload Deployment System (PDS)</p> <p>Description: The MRC Launcher PDS leverages Joint Service technologies and integration of common hardware, software, and mutually supporting test events for the MRC Payload Deployment System. The MRC Launcher PDS stows and fires SM-6 and</p>		-	-	46.490

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Army		Date: May 2021
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2020	FY 2021	FY 2022
<p>Tomahawk missiles. The missiles are capable of flying at various speeds and altitudes for mid-range distances to engage desired targets. The MRC Launcher PDS Project delivers four PDSs for each MRC Battery.</p> <p>FY 2022 Plans: The FY 2022 Base funding in the amount of \$46.490 million funds the fabrication, integration of design requirements, and test and evaluation for the four MRC Launcher PDS Base funding ensures safe and effective operational deployment of the MRC prototype PDS. This funds the OEMs effort to obtain materials and sub-assemblies and to fabricate the MRC Launcher Payload Deployment System. This effort completes the design, development, and integration of required characteristics to ensure safe and effective operational deployment of the MRC Launcher PDS solution. Launcher integration ensures that the system is stable during launch and meets transportation requirements. Provides for the Government and Contractor coordination required to participate and plan for initial Test and Evaluation events. Integration efforts include wireless communication, rapid reloading, improved mobility, weight reduction, and M-Code implementation. Provides Government Program Management, Systems Engineering, SETA support, and technical control for the MRC Launcher PDS project.</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: Funding will provide all remaining material requirements as the majority of the fabrication of the four Launcher prototypes continues. In PB 21 R Form all costs in FY 2020 and FY 2021 were captured under MIRM. For PB 22 R Form additional program details were added.</p>			
<p>Title: Mid-Range Capability (MRC) Ground Support Equipment (GSE)</p> <p>Description: The MRC Ground Support Equipment leverages Joint Service technologies and integration of common hardware, software, and mutually supporting test events for the GSE. This includes the Battery Operations Center, prime movers, trailer, generators, cabling, and support vehicles. The MRC Battery Operations Center houses the federated Command and Control systems.</p> <p>FY 2022 Plans: The FY 2022 Base funding in the amount of \$100.226 million funds the fabrication, integration of design requirements, and test and evaluation for the MRC Ground Support Equipment (GSE) and MRC BOC. The FY 2022 Base funding ensures safe and effective operational deployment of the MRC GSE and the prototype BOC. This funds the OEMs effort to obtain materials and sub-assemblies and to fabricate the MRC BOC and funds the system integration across military branches to include the OEM contractor and other government agencies in order to ensure a common MRC GSE. This effort completes the design, development, and integration of required characteristics to ensure safe and effective operational deployment. Provides for the Government and Contractor coordination required to participate and plan for initial Test and Evaluation events. Integration</p>	-	-	100.226

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Army		Date: May 2021		
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604644A / <i>Mobile Medium Range Missile</i>	Project (Number/Name) MR1 / <i>Mobile Intermediate Range Missile</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2020	FY 2021	FY 2022
efforts include wireless communication, improved mobility, weight reduction, and M-Code implementation. Provides Government Program Management, Systems Engineering, SETA support, and technical control for MRC GSE project.				
FY 2021 to FY 2022 Increase/Decrease Statement: Funding will provide all remaining material requirements as the BOC prototype fabrication continues, and as the test, integration, and checkout activities increase. In PB 21 R Form all costs in FY 2020 and FY 2021 were captured under MIRM. For PB 22 R Form additional program details were added.				
Title: Mid-Range Capability (MRC) Missiles Description: MRC funds Joint Service technologies and buys missiles, SM-6 and Tomahawk, needed for the operational deployment of the MRC prototype Battery. The missiles are capable of flying at various speeds and altitudes for mid-range distances to engage desired targets. The MRC project delivers a variety of missiles (both SM-6 and Tomahawk) in support of the MRC battery. The missiles are prescribed for use under basic load and test rounds only. MRC provides Government Program Management, Systems Engineering, SETA support, and technical control necessary for missile buys. FY 2022 Plans: Buying missiles in FY22. Details at a higher classification. FY 2021 to FY 2022 Increase/Decrease Statement: The FY 2022 funds the MRC Missiles buys. In PB 21 R Form all costs in FY 2020 and FY 2021 were captured under MIRM. For PB 22 R Form additional program details were added.		-	-	139.741
Accomplishments/Planned Programs Subtotals		4.794	88.100	286.457
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy The Mid-Range Capability (MRC) project will leverage existing contract vehicles to procure items currently in production through a combination of Army and Navy contracts. The MRC project will procure MRC specific analysis, design, development, and integration through a RCCTO prototype Other Transaction Authority (pOTA). The pOTA will leverage the Strategic Capabilities Office (SCO), Navy, and US Marine Corps (USMC) investments in weapon system development since 2016 by providing a body of data including Technical Data Packages (TDP), Critical Design Review (CDR) artifacts, and active production lines. These programs provide the MRC project with the opportunity to have common production, training, logistics, and sustainment with the SCO and Navy. To realize this opportunity, the RCCTO awarded a pOTA to Lockheed Martin (LM) in November 2020.				

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

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604644A / Mobile Medium Range Missile	Project (Number/Name) MR1 / Mobile Intermediate Range Missile
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Management Services (\$ 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 Planning	Various	multiple : multiple	-	4.794	Nov 2020	3.959	Mar 2021	-		-		-	0.000	8.753	-
System Engineering and Program Management	Various	TBD : Huntsville, AL; National Capitol Region	-	-		-		12.027		-		12.027	11.786	23.813	-
Subtotal			-	4.794		3.959		12.027		-		12.027	11.786	32.566	N/A

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			
Contracts for technology development, integration, prototyping	Various	multiple : multiple	-	-		84.141	Mar 2021	-		-		-	0.000	84.141	-
Original Equipment Manufacturer (OEM)	SS/CPFF	Lockheed Martin : Various	-	-		-		84.200		-		84.200	19.233	103.433	-
Government Furnished Equipment (GFE)	Various	Various : Various	-	-		-		8.990		-		8.990	0.000	8.990	-
Other Government Agencies (OGA)	Various	Various : Various	-	-		-		24.080		-		24.080	0.000	24.080	-
MRC Missiles	Various	Navy Various : Various	-	-		-		139.140		-		139.140	0.000	139.140	-
Subtotal			-	-		84.141		256.410		-		256.410	19.233	359.784	N/A

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			
Cyber, Software, Transportation	Various	Various : Various	-	-		-		7.790		-		7.790	7.943	15.733	-
Subtotal			-	-		-		7.790		-		7.790	7.943	15.733	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2022 Army		Date: May 2021
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604644A / Mobile Medium Range Missile	Project (Number/Name) MR1 / Mobile Intermediate Range Missile

Event Name	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MRC Launcher Payload Deployment System (PDS) Assembly									■																			
MRC Battery Operation Center (BOC) Assembly									■																			
Initial System Integration and Check Out													■															
New Materiel in Brief (NMIB)																	■											
Initial Fielding																	■											
Obtain Release to Train																					■							
NET																	■											
TRR																					■							
Obtain Release to Deploy																					■							
SM-6 Missile Test																					■							
Tomahawk Missile Test																					■							
CLS																					■							
First Unit of Issue (FUI)																					■							
																					■							

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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Army		Date: May 2021
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604644A / <i>Mobile Medium Range Missile</i>	Project (Number/Name) MR1 / <i>Mobile Intermediate Range Missile</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MRC Launcher Payload Deployment System (PDS) Assembly	1	2022	4	2022
MRC Battery Operation Center (BOC) Assembly	1	2022	4	2022
Initial System Integration and Check Out	3	2022	4	2022
New Materiel in Brief (NMIB)	3	2022	3	2022
Initial Fielding	1	2023	1	2024
Obtain Release to Train	1	2023	1	2024
NET	2	2023	3	2023
TRR	2	2023	2	2023
Obtain Release to Deploy	3	2023	3	2023
SM-6 Missile Test	3	2023	3	2023
Tomahawk Missile Test	3	2023	3	2023
CLS	4	2023	4	2024
First Unit of Issue (FUI)	4	2023	4	2023