Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army											Date: March 2024	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0603778A / *MLRS Product Improvement Program*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	17.790	14.465	14.188	-	14.188	9.356	9.724	9.832	9.930	0.000	85.285
093: *Multi-Launch Rocket System (MLRS)*	-	9.805	10.233	9.947	-	9.947	5.111	5.433	5.493	5.548	0.000	51.570
DX8: *HIMARS Product Improvement Program*	-	7.985	4.232	4.241	-	4.241	4.245	4.291	4.339	4.382	0.000	33.715

A. Mission Description and Budget Item Justification

Program element 0603778A supports development and testing of the Army's rocket launcher fleet, including the Multiple Launch Rocket System (MLRS) launcher and the High Mobility Artillery Rocket System (HIMARS) launcher. MLRS and HIMARS launchers support the Army's Long Range Precision Fires modernization effort. Updated launchers are required to fire current and future munitions such as the Precision Strike Missile (PrSM) and Extended Range (ER) Guided Multiple Launch Rocket System (GMLRS). Funding from both Projects 093 and DX8 contributes to common efforts between both launcher platforms such as Assured Positioning, Navigation and Timing (APNT) integration and rocket launcher software development effort by Combat Capabilities Development Command Aviation and Missile Center (CCDC AvMC). Supports the Army's goal to develop common solutions applicable to both MLRS and HIMARS launchers.

This funding line is a key enabler of the Army Modernization Priorities in support of the Multiple Launch Rocket System (MLRS) and the High Mobility Artillery Rocket System (HIMARS) programs. The MLRS and HIMARS programs are components of an integrated fires development effort that includes survivability, resiliency, and effectiveness improvements against advanced threats from near-peer adversaries. These efforts include integration with an evolving common fires mission command, common development tools and processes, and annual test and evaluation to provide data to support program assessments and progress toward closure of performance gaps.

Project 093. The M270A2 Multiple Launch Rocket System (MLRS) launcher is a full-spectrum, combat-proven, all-weather, 24/7 lethal and responsive, precision strike weapon system. MLRS launchers support the Army's Long Range Precision Fires modernization effort. MLRS provides critical missile precision strike, operational shaping fires, counter-fire, and close support destructive and suppressive fires. MLRS is a tracked, indirect fire, rocket/missile launcher capable of firing two pods of precision rockets/missiles from the current Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM) including the Guided Multiple Launch Rocket System (GMLRS) and the Army Tactical Missile System (ATACMS), and future MFOM to include the Extended Range GMLRS (ER-GMLRS), and the Precision Strike Missile (PrSM). These munitions are capable of engaging targets with precision at ranges up to and in excess of 400 kilometers. MLRS launchers support Integrated Fires and Multi-Domain Operations. Funds software development, training updates, Assured Positioning, Navigation and Timing (APNT) technology implementation, integration of satellite communications, integration of evolving cybersecurity requirements, and nonrecurring engineering for the MLRS launcher. Funds development related to maintaining capability associated with the current and evolving threat. Funds non-recurring engineering for system hardware and software modernization to the MLRS chassis, Launcher Loader Module, and Fire Control System. Funding from both Projects 093 and DX8 contributes to common efforts between both launcher platforms such as Assured Positioning, Navigation and Timing (APNT) integration and rocket launcher software development effort by Combat Capabilities Development Command Aviation and Missile Center (CCDC AvMC). Supports the Army's goal to develop common solutions applicable to both MLRS and HIMARS launchers.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army	Date: March 2024
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0603778A *I MLRS Product Improvement Program*

Project DX8. The M142 High Mobility Artillery Rocket System (HIMARS) launcher is a full spectrum, combat proven, all weather, 24/7 lethal and responsive, precision strike weapon system. HIMARS launchers support the Army's Long Range Precision Fires modernization effort. HIMARS provides critical missile precision strike, operational shaping fires, counterfire, and close support destructive and suppressive fires. HIMARS is a C-130 or C-17 transportable, wheeled, indirect fire, rocket/ missile launcher capable of firing one pod of precision rockets/missiles from the current Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), including the Guided MLRS (GMLRS) and the Army Tactical Missile System (ATACMS), and future MFOM to include the Extended Range GMLRS (ER-GMLRS), and the Precision Strike Missile (PrSM). These munitions are capable of engaging targets with precision at ranges up to and in excess of 400 kilometers. HIMARS launchers support Integrated Fires and Multi-Domain Operations. Funds software development, training updates, Assured Positioning, Navigation and Timing (APNT) technology implementation, integration of satellite communications, integration of evolving cybersecurity requirements, and nonrecurring engineering for the HIMARS launcher. Funds development related to maintaining capability associated with the current and evolving threat. Funding from both Projects 093 and DX8 contributes to common efforts between both launcher platforms such as Assured Positioning, Navigation and Timing (APNT) integration and rocket launcher software development effort by Combat Capabilities Development Command Aviation and Missile Center (CCDC AvMC). Supports the Army's goal to develop common solutions applicable to both MLRS and HIMARS launchers.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	18.463	14.465	14.159	-	14.159
Current President's Budget	17.790	14.465	14.188	-	14.188
Total Adjustments	-0.673	0.000	0.029	-	0.029
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.001	-			
• SBIR/STTR Transfer	-0.674	-			
• Adjustments to Budget Years	-	-	0.029	-	0.029

Change Summary Explanation

Increased funding due to revised economic assumptions.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army										Date: March 2024		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0603778A / *MLRS Product Improvement Program*				Project (Number/Name) 093 / *Multi-Launch Rocket System (MLRS)*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
093: *Multi-Launch Rocket System (MLRS)*	-	9.805	10.233	9.947	-	9.947	5.111	5.433	5.493	5.548	0.000	51.570
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project 093. The M270A2 Multiple Launch Rocket System (MLRS) launcher is a full-spectrum, combat-proven, all-weather, 24/7 lethal and responsive, precision strike weapon system. MLRS launchers support the Army's Long Range Precision Fires modernization effort. MLRS provides critical missile precision strike, operational shaping fires, counter-fire, and close support destructive and suppressive fires. MLRS is a tracked, indirect fire, rocket/missile launcher capable of firing two pods of precision rockets/missiles from the current Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM) including the Guided Multiple Launch Rocket System (GMLRS) and the Army Tactical Missile System (ATACMS), and future MFOM to include the Extended Range GMLRS (ER-GMLRS), and the Precision Strike Missile (PrSM). These munitions are capable of engaging targets with precision at ranges up to and in excess of 400 kilometers. MLRS launchers support Integrated Fires and Multi-Domain Operations. Funds software development, training updates, Assured Positioning, Navigation and Timing (APNT) technology implementation, integration of satellite communications, integration of evolving cybersecurity requirements, and nonrecurring engineering for the MLRS launcher. Funds development related to maintaining capability associated with the current and evolving threat. Funds non-recurring engineering for system hardware and software modernization to the MLRS chassis, Launcher Loader Module, and Fire Control System. Funding from both Projects 093 and DX8 contributes to common efforts between both launcher platforms such as Assured Positioning, Navigation and Timing (APNT) integration and rocket launcher software development effort by Combat Capabilities Development Command Aviation and Missile Center (CCDC AvMC). Supports the Army's goal to develop common solutions applicable to both MLRS and HIMARS launchers.

Justification:
FY2025 Base funding in the amount of $9.947 million for Project 093 continues tactical launcher software development, qualification, and materiel release to support the Fire Control System (FCS) electronic obsolescence mitigation hardware upgrade required to operate a MLRS launcher. The tactical software is a critical developmental item required to field additional launchers, maintain backward compatibility for current fleet sustainment, and is the first release of government developed software common to both the MLRS and HIMARS launcher. Continues integration of Assured Positioning, Navigation and Timing (APNT) capabilities, and integration of satellite communications, allowing MLRS to continue to effectively operate in near-peer and peer-threat environments.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: MLRS Product Improvement Program	9.805	10.233	9.947
Description: The MLRS Product Improvement Program provides the preservation of platform viability and readiness to accept technology insertion as capability enhancements are developed and to mitigate electronic obsolescence. Support efforts include: obsolescence mitigation and enhancements for the M993 carrier, Fire Control System, Launcher Loader Module and Enhanced Command and Control; development and updating the Fire Control System software to keep pace with changes to the munitions; and performing Command, Control, Communications, Computers and Intelligence (C4I)/interoperability and Information.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0603778A / *MLRS Product Improvement Program*	**Project (Number/Name)** 093 / *Multi-Launch Rocket System (MLRS)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Assurance compliance certification and network interoperability testing. Perform technical assessments and concept studies for the following: electronic obsolescence mitigation, Assured Positioning, Navigation and Timing (APNT), crew protection, automotive and hardware/software enhancements, improving operational timelines and risk reduction. ***FY 2024 Plans:*** Continue updates to currently fielded tactical launcher software. Continue tactical launcher software development to incorporate updates post Functional Qualification Test (FQT) and Post System Integration Test (SIT) qualification to support the Fire Control System (FCS). Integrate and test the improved Assured Positioning, Navigation and Timing (APNT) capabilities and satellite communications. Development, integration, and testing of Multiple Launch Rocket System solutions, including test planning to support an annual Multi-Domain Operations test/demonstration event. This event also includes biennial Survivability Resiliency/ Cyber-Electromagnetic activities. ***FY 2025 Plans:*** Continue updates to currently fielded tactical launcher software. Continue tactical launcher software development to incorporate updates post Functional Qualification Test (FQT) and Post System Integration Test (SIT) qualification to support the Fire Control System (FCS). Integrate and test the improved Assured Positioning, Navigation and Timing (APNT) capabilities and satellite communications, to include M-Code and anti-jam capabilities. Update software to integrate evolving cybersecurity requirements. Development, integration, and testing of Multiple Launch Rocket System solutions, including test planning to support an annual PEO MS-led Multi-Domain Operations test/demonstration event. This event also includes biennial Survivability Resiliency/Cyber-Electromagnetic activities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decreased funding due to planned life cycle of the program.			
Accomplishments/Planned Programs Subtotals	9.805	10.233	9.947

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• C67500: *MLRS Mods*	218.359	168.198	185.839	-	185.839	244.227	288.714	289.244	302.309	Continuing	Continuing

Remarks

C67500 is Budget Line Item Number (BLIN) 27 funded in the Missiles Procurement Army appropriation.

D. Acquisition Strategy

The MLRS Product Improvement Program performs development efforts required to address emerging requirements. Emerging requirements include, but are not limited to, updates to address emerging threats to the launcher organic software, reacting to system changes driven by policy and emerging requirements, and maintaining

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0603778A / *MLRS Product Improvement Program*	**Project (Number/Name)** 093 / *Multi-Launch Rocket System (MLRS)*

architectural compatibility with other Army ground-based systems reducing sustainability costs. Update software and hardware for communications and munitions to maintain compatibility and operational viability against near-peer adversaries. The MLRS program is a component of an integrated fires development effort that includes survivability, resiliency, and effectiveness improvements against advanced threats from near-peer adversaries. This effort includes integration with an evolving common fires mission command, common development tools and processes, and annual test and evaluation to provide data to support program assessments and progress toward closure of performance gaps.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / *MLRS Product Improvement Program*	Project (Number/Name) 093 / *Multi-Launch Rocket System (MLRS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Organic Software Development	MIPR	CCDC AvMC : Redstone Arsenal, AL	21.606	4.013	Nov 2022	4.653	Nov 2023	4.297	Nov 2024	-		4.297	Continuing	Continuing	Continuing
Assured Positioning, Navigation and Timing (APNT) Integration	WR	LMMFC : Grand Prairie, TX	1.907	5.395	Nov 2022	5.175	Nov 2023	5.047	Nov 2024	-		5.047	Continuing	Continuing	Continuing
		Subtotal	23.513	9.408		9.828		9.344		-		9.344	Continuing	Continuing	N/A

Remarks

Organic (government developed, maintained, and owned) software development includes additional research and development related to Fire Control System obsolescence.

Assured Positioning, Navigation and Timing (APNT) includes activities such as Global Positioning System (GPS) Anti-Jam, Anti-Spoofing capabilities, and integration of satellite communications.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	MIPR	Ft Cavazos, TX, ATEC, APG, MD, WSMR, RTC, : RSA: Various	1.791	0.397	Nov 2022	0.405	Nov 2023	0.603	Nov 2024	-		0.603	Continuing	Continuing	Continuing
		Subtotal	1.791	0.397		0.405		0.603		-		0.603	Continuing	Continuing	N/A

Remarks

Test support includes software qualification for the Fire Control System as well as the qualification and testing of the Assured Positioning, Navigation and Timing (APNT) solution.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	25.304	9.805		10.233		9.947		-		9.947	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / *MLRS Product Improvement Program*	Project (Number/Name) 093 / *Multi-Launch Rocket System (MLRS)*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Acronyms:
APNT: Assured Positioning, Navigation and Timing
CCDC: Combat Capabilities Development Command;
AvMC: Aviation and Missile Center;
ATEC - US Army Test and Evaluation Command;
APG MD - Aberdeen Proving Ground, Maryland;
WSMR - White Sands Missile Range;
RTC RSA - Redstone Test Center, Redstone Arsenal;
STORM - Strategic and Operational Rockets and Missiles

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0603778A / *MLRS Product Improvement Program*	**Project (Number/Name)** 093 / *Multi-Launch Rocket System (MLRS)*

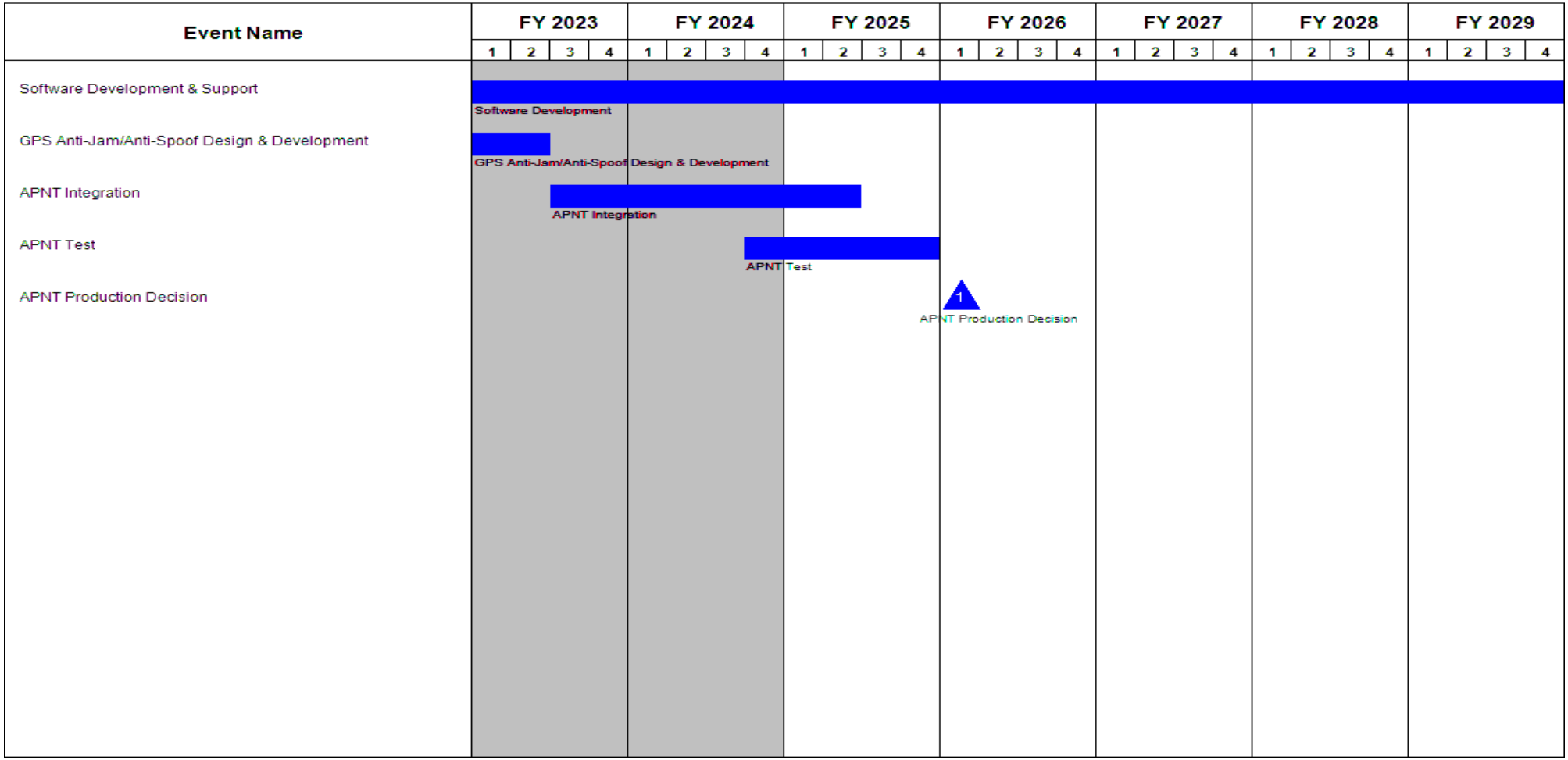

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0603778A / *MLRS Product Improvement Program*	**Project (Number/Name)** 093 / *Multi-Launch Rocket System (MLRS)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Software Development & Support	1	2018	4	2029
Functional Configuration Audit	2	2022	2	2022
GPS Anti-Jam/Anti-Spoof Design & Development	1	2021	2	2023
APNT Integration	3	2023	2	2025
APNT Test	4	2024	4	2025
APNT Production Decision	1	2026	1	2026

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army										Date: March 2024		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0603778A / *MLRS Product Improvement Program*				Project (Number/Name) DX8 / *HIMARS Product Improvement Program*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
DX8: *HIMARS Product Improvement Program*	-	7.985	4.232	4.241	-	4.241	4.245	4.291	4.339	4.382	0.000	33.715
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project DX8. The M142 High Mobility Artillery Rocket System (HIMARS) launcher is a full spectrum, combat proven, all weather, 24/7 lethal and responsive, precision strike weapon system. HIMARS launchers support the Army's Long Range Precision Fires modernization effort. HIMARS provides critical missile precision strike, operational shaping fires, counterfire, and close support destructive and suppressive fires. HIMARS is a C-130 or C-17 transportable, wheeled, indirect fire, rocket/ missile launcher capable of firing one pod of precision rockets/missiles from the current Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM), including the Guided MLRS (GMLRS) and the Army Tactical Missile System (ATACMS), and future MFOM to include the Extended Range GMLRS (ER-GMLRS), and the Precision Strike Missile (PrSM). These munitions are capable of engaging targets with precision at ranges up to and in excess of 400 kilometers. HIMARS launchers support Integrated Fires and Multi-Domain Operations. Funds software development, training updates, Assured Positioning, Navigation and Timing (APNT) technology implementation, integration of satellite communications, integration of evolving cybersecurity requirements, and nonrecurring engineering for the HIMARS launcher. Funds development related to maintaining capability associated with the current and evolving threat. Funding from both Projects 093 and DX8 contributes to common efforts between both launcher platforms such as Assured Positioning, Navigation and Timing (APNT) integration and rocket launcher software development effort by Combat Capabilities Development Command Aviation and Missile Center (CCDC AvMC). Supports the Army's goal to develop common solutions applicable to both MLRS and HIMARS launchers.

FY 2025 Base funding in the amount of $4.241 million for Project DX8 supports tactical launcher software development and qualification to support the Fire Control System (FCS) electronic obsolescence mitigation hardware upgrade required to operate a HIMARS launcher. The tactical software is a critical developmental item required to field additional launchers, maintain backward compatibility for current fleet sustainment, and is the first release of government developed software common to both the MLRS and HIMARS launcher.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: MLRS Production Improvement Program (PIP)-HIMARS PIP	7.985	4.232	4.241
Description: The HIMARS Product Improvement Program provides the preservation of platform viability and readiness to accept technology insertion. As capability enhancements are developed, technology is inserted to mitigate obsolescence. Support efforts include: obsolescence mitigation and enhancements for the Family of Medium Tactical Vehicles (FMTV) Carrier, Fire Control System, Launcher Loader Module and Enhanced Command and Control; development and updating the Fire Control System software to keep pace with changes to the munitions; and performing Command, Control, Communications, Computers and Intelligence (C4I)/interoperability and Information Assurance compliance certification and network interoperability testing. Perform technical assessments and concept studies for the following: electronic obsolescence mitigation and redesign to keep pace with			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0603778A / *MLRS Product Improvement Program*	**Project (Number/Name)** DX8 / *HIMARS Product Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
the evolving threat, Assured Positioning Navigation and Timing (APNT), crew protection, automotive and hardware/software enhancements, improving operational timelines, leader-follower technology and risk reduction. ***FY 2024 Plans:*** Continues tactical launcher software development, risk reduction, and qualification to support the Fire Control System (FCS) electronic obsolescence mitigation hardware upgrade required to operate a HIMARS launcher. ***FY 2025 Plans:*** Continue tactical launcher software development, risk reduction, and qualification to support the Fire Control System (FCS) electronic obsolescence mitigation hardware upgrade required to operate a HIMARS launcher. Integrate and test the improved Assured Positioning, Navigation and Timing (APNT) capabilities and satellite communications, to include M-Code and anti-jam capabilities for CFCS-equipped HIMARS launchers. Complete Digital GPS Anti-Jam Receiver (DIGAR) testing for UFCS-equipped HIMARS launchers. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2024 to FY 2025 funding increase represents minor increase due to economic assumptions.			
Accomplishments/Planned Programs Subtotals	7.985	4.232	4.241

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• C67501: *HIMARS Modifications*	20.468	76.266	49.581	-	49.581	54.173	54.216	54.272	54.815	Continuing	Continuing
• C02901: *High Mobility Artillery Rocket System (HIMARS)*	672.129	179.230	79.387	-	79.387	80.676	93.431	104.759	109.915	0.000	1,319.527

Remarks

C67501 (Budget Line Item Number 28) and C02091 (Budget Line Item Number 19) are funded in the Missiles Procurement Army appropriation.

D. Acquisition Strategy

The M142 HIMARS Product Improvement Program performs development efforts required to address emerging requirements. Emerging requirements include, but are not limited to, updates to address emerging threats of the launcher organic version 8.x and 9.x software, reacting to system changes driven by policy and emerging requirements, and maintaining architectural compatibility with other Army ground-based systems reducing sustainability costs. Update software and hardware for communications and munitions to maintain compatibility and operational viability against near-peer adversaries. The HIMARS program is a component of an integrated fires development effort that includes survivability, resiliency, and effectiveness improvements against advanced threats from near-peer adversaries. This effort includes integration with an evolving common fires mission command, common development tools and processes, and annual test and evaluation to provide data to support program assessments and progress toward closure of performance gaps.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0603778A / *MLRS Product Improvement Program*	**Project (Number/Name)** DX8 / *HIMARS Product Improvement Program*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Organic Software Development	MIPR	CCDC AvMC : Redstone Arsenal, AL	29.928	3.877	Apr 2023	2.320	Apr 2024	3.105	Apr 2025	-		3.105	Continuing	Continuing	Continuing
APNT Integration	WR	LMMFC : Grand Prairie, TX	1.907	3.711	Nov 2022	1.507	Nov 2023	0.624	Nov 2024	-		0.624	Continuing	Continuing	Continuing
		Subtotal	31.835	7.588		3.827		3.729		-		3.729	Continuing	Continuing	N/A

Remarks

Organic (government developed, maintained, and owned) software development includes additional research and development related to Fire Control System electronic obsolescence.

Assured Positioning, Navigation and Timing (APNT) activities includes integration of Global Positioning System (GPS) Anti-Jam, Anti-Spoofing capabilities, and integration of satellite communications.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	MIPR	Ft Cavazos, TX, ATEC, APG, MD, WSMR, RTC, RSA : Various	5.303	0.397	Nov 2022	0.405	Nov 2023	0.512	Nov 2024	-		0.512	Continuing	Continuing	Continuing
		Subtotal	5.303	0.397		0.405		0.512		-		0.512	Continuing	Continuing	N/A

Remarks

Test support includes software qualification for the Fire Control System as well as the qualification and testing of the Assured Positioning, Navigation and Timing (APNT) solution.

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	37.138	7.985		4.232		4.241		-		4.241	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / *MLRS Product Improvement Program*	Project (Number/Name) DX8 / *HIMARS Product Improvement Program*	

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Acronyms:
APG MD - Aberdeen Proving Ground, Maryland
APNT - Assured Positioning, Navigation and Timing
ATEC - US Army Test and Evaluation Command
AvMC - Aviation and Missile Center
CCDC - Combat Capabilities Development Command
DIGAR - Digital GPS Anti-Jam (AJ) Receiver
RTC RSA - Redstone Test Center, Redstone Arsenal, Alabama
STORM - Strategic and Operational Rockets and Missiles
WSMR - White Sands Missile Range

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0603778A / *MLRS Product Improvement Program*	**Project (Number/Name)** DX8 / *HIMARS Product Improvement Program*

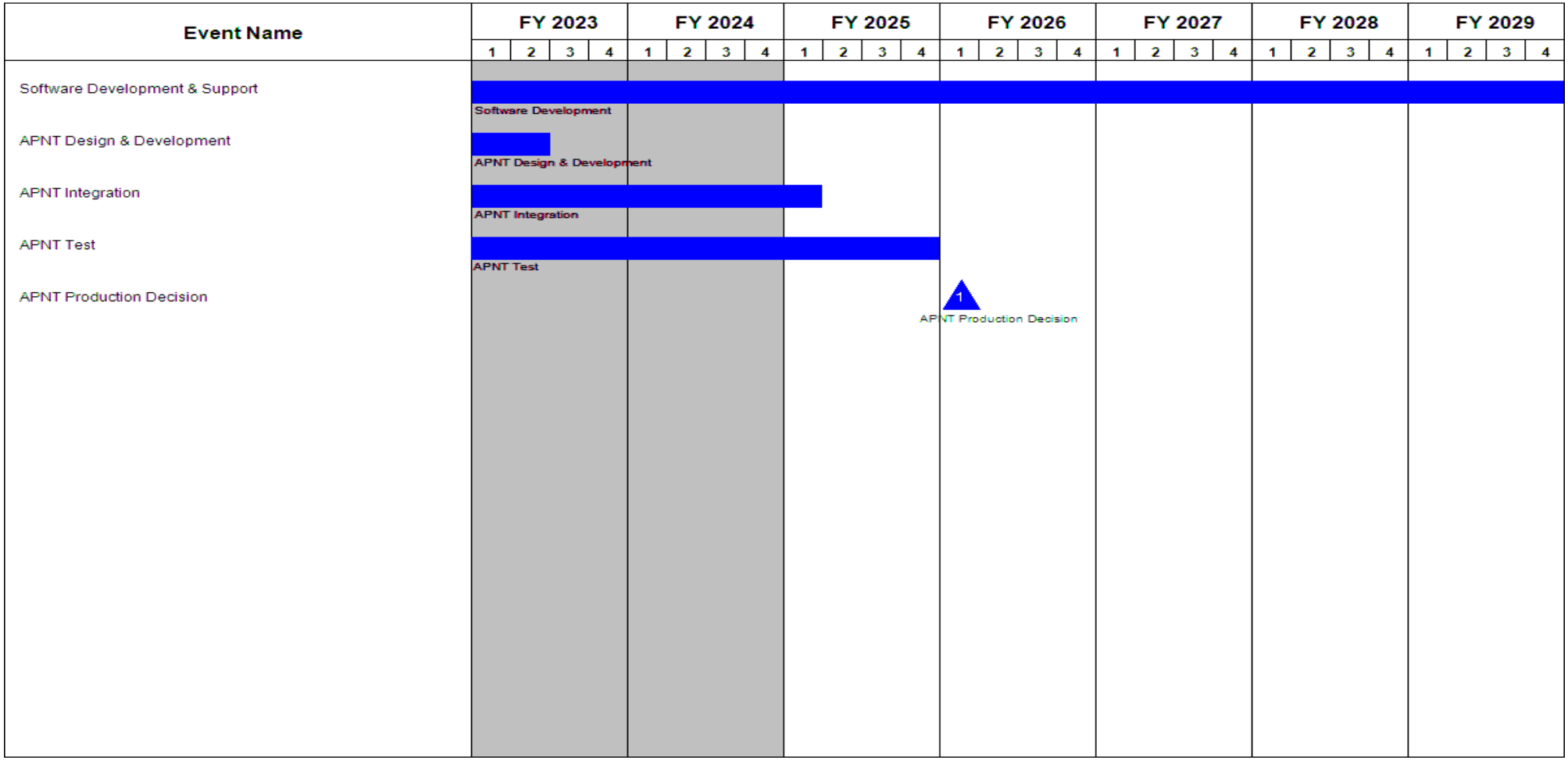

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0603778A / *MLRS Product Improvement Program*	**Project (Number/Name)** DX8 / *HIMARS Product Improvement Program*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Software Development & Support	1	2019	4	2029
APNT Design & Development	1	2021	2	2023
APNT Integration	1	2022	1	2025
APNT Test	3	2022	4	2025
APNT Production Decision	1	2026	1	2026