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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army **Date:** April 2022

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 0205778A / Guided Multiple-Launch Rocket System (GMLRS)
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	72.817	60.733	20.180	-	20.180	51.759	46.455	46.470	41.466	0.000	339.880
EG2: GMLRS Alternative Warheads	-	7.986	24.088	-	-	-	-	-	-	-	0.000	32.074
EG3: Guided MLRS	-	64.831	36.645	20.180	-	20.180	51.759	46.455	46.470	41.466	0.000	307.806

Program MDAP/MAIS Code: 260

A. Mission Description and Budget Item Justification

Guided Multiple-Launch Rocket System (GMLRS) rockets are surface-to-surface artillery rockets fired from the Multiple Launch Rocket System (MLRS) and High Mobility Artillery Rocket System (HIMARS) launchers. GMLRS rockets provide 24/7, all-weather precision fires to engage both area and point targets at short, medium, and long ranges. The GMLRS Program currently consists of multiple variants: GMLRS Unitary utilizes a 200 pound high explosive warhead to engage point targets with limited collateral damage; GMLRS Dual Purpose Improved Conventional Munition (DPICM) cluster munition to engage area or imprecisely located targets and GMLRS Alternative Warhead (AW) which has been developed as a non-cluster munition to engage the same target set as GMLRS DPICM. GMLRS DPICM Production was terminated in response to the June 2008 Department of Defense (DoD) Cluster Munitions Policy. GMLRS Unitary and AW are currently in full rate production.

The 26 October 2016 Deputy Secretary's Management Action Group (DMAG) directed the Army to define and execute an effort for GMLRS modifications that would extend the maximum range (Extended Range (ER) GMLRS) and integrate sensors and seekers into the rocket to engage complex targets with greater precision at greater ranges. These modifications to GMLRS were designated by the Army Acquisition Executive as an engineering change proposal (ECP) and not as a new program. During the FY23-27 POM review, the Army prioritized the development and integration of an Enhanced Alternative Warhead (EAW, formerly described as Enhanced Area Warhead in the PB 2022 R-Forms) over support for the seeker spiral.

The GMLRS program will develop nascent capability and support Army demonstration and test initiatives to increase integrated offensive and defensive capability across warfighter functions and multiple domains.

The GMLRS program will continue to leverage ongoing Government and Industry research and development efforts to extend range, increase survivability, and enhance lethality. The EG2 funding line is used to support qualification and integration of EAW into a standard range GMLRS rocket. There are no funds in EG2 in FY 2023, the EAW effort continues under EG3. The EG3 funding line enables GMLRS enhancements such as EAW and ER GMLRS modification, statutorily required upgrades such as development of Assured Positioning, Navigation, and Timing (APNT), and aging technology mitigation and upgrades.

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Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0205778A / <i>Guided Multiple-Launch Rocket System (GMLRS)</i>
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B. Program Change Summary (\$ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	72.817	63.937	0.000	-	0.000
Current President's Budget	72.817	60.733	20.180	-	20.180
Total Adjustments	0.000	-3.204	20.180	-	20.180
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.204			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	20.180	-	20.180

Change Summary Explanation

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Army										Date: April 2022		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0205778A / Guided Multiple-Launch Rocket System (GMLRS)				Project (Number/Name) EG2 / GMLRS Alternative Warheads			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
EG2: GMLRS Alternative Warheads	-	7.986	24.088	-	-	-	-	-	-	-	0.000	32.074
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The United States (U.S.) Army initially funded the development of the Guided Multiple Launch Rocket System (GMLRS) Alternative Warhead (AW) increment under the EG2 - GMLRS Alternative Warheads project code. GMLRS AW entered full rate production in 2015. The 26 October 2016 Deputy Secretary's Management Action Group (DMAG) directed the Army to define and execute an effort for a GMLRS modification that would integrate a seeker into the rocket. During the FY23-27 POM review, the Army prioritized integration of an Enhanced Alternative Warhead (EAW) into a standard range GMLRS rocket over continuation of the seeker spiral.

There are no funds under EG2 for Fiscal Year (FY) 2023.

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

	FY 2021	FY 2022	FY 2023
Title: Enhanced Alternative Warhead	7.986	23.209	-
Description: The Enhanced Alternative Warhead effort modifies the AW warhead, proximity sensor, and warhead fuze for increased lethality against light and medium armored targets.			
FY 2022 Plans: Build prototype warheads and Side Mounted Proximity Sensor (SMPS). Complete rocket operational flight software and launcher software update/modification. Conduct component level qualification and begin system qualification flight testing.			
FY 2022 to FY 2023 Increase/Decrease Statement: In FY 2023, this effort transitions to the EG3 funding line.			
Title: FY 2022 SBIR/STTR Transfer	-	0.879	-
Description: FY 2022 Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR)			
FY 2022 Plans: FY 2022 SBIR / STTR Transfer			
FY 2022 to FY 2023 Increase/Decrease Statement: Decrease in FY 2023 due to SBIR / STTR Transfer in FY 2022			
Accomplishments/Planned Programs Subtotals	7.986	24.088	-

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / <i>Guided Multiple-Launch Rocket System (GMLRS)</i>	Project (Number/Name) EG2 / <i>GMLRS Alternative Warheads</i>

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2023</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• C64400: <i>Guided MLRS Rocket (GMLRS)</i>	903.009	862.699	785.028	-	785.028	676.163	739.870	741.516	742.436	Continuing	Continuing
• EG3: <i>Guided MLRS</i>	64.831	36.645	20.180	-	20.180	51.759	46.455	46.470	41.466	Continuing	Continuing

Remarks

GMLRS missile Army procurement funding (MiPA) includes C65404 and C65406.

D. Acquisition Strategy

GMLRS AW is currently in Full Rate Production. The Enhanced Alternative Warhead will be fully qualified at the system/rocket level; this work continues under the EG3 funding line. Once the munition with the EAW completes Type Classification/Materiel Release, it will replace the current AW rocket in production. All GMLRS variants are procured under C64400.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army **Date:** April 2022

Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / Guided Multiple-Launch Rocket System (GMLRS)	Project (Number/Name) EG2 / GMLRS Alternative Warheads
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Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Government Program Management	MIPR	STORM Project Office : RSA	7.415	2.049		3.237		-		-		-	0.000	12.701	-
FY 2022 SBIR/STTR Transfer	Various	Various : Various	-	-		0.879		-		-		-	0.000	0.879	-
Subtotal			7.415	2.049		4.116		-		-		-	0.000	13.580	N/A

Remarks
STORM-Strategic and Operational Rockets and Missiles; RSA-Redstone Arsenal

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
AWP Contracts (Multiple)	Various	NGDS (Plymouth, MN) LMMFC (Dallas, TX) : Systems Integrator	9.955	-		-		-		-		-	0.000	9.955	-
Other Government Agencies	MIPR	CCDC/AvMC : RSA	5.992	2.361	Jan 2021	2.472	Jan 2022	-		-		-	0.000	10.825	-
Enhanced Alternative Warhead	C/CPFF	Kord : Huntsville, AL	5.688	3.000		17.500	Mar 2022	-		-		-	0.000	26.188	-
Subtotal			21.635	5.361		19.972		-		-		-	0.000	46.968	N/A

Remarks
AWP-Alternative Warhead Program; Various-Competitive/Firm Fixed Price/Sole Source/Cost Plus Fixed Fee; CCDC-Combat Capabilities Development Command; AvMC-Aviation and Missile Center; RSA-Redstone Arsenal; NGDS-Northrop Grumman Defense Systems; MN-Minnesota; LMMFC-Lockheed Martin Missile and Fire Control; TX-Texas; AL-Alabama

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army **Date:** April 2022

Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / <i>Guided Multiple-Launch Rocket System (GMLRS)</i>	Project (Number/Name) EG2 / <i>GMLRS Alternative Warheads</i>
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Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Test Support for Seeker	MIPR	WSMR, : NM	14.363	-		-		-		-		-	0.000	14.363	-
Test Support for EAW	MIPR	WSMR, RTC, AVMC : NM, Redstone Arsenal	0.500	0.576		-		-		-		-	0.000	1.076	-
Subtotal			14.863	0.576		-		-		-		-	0.000	15.439	N/A

Remarks
 WSMR-White Sands Missile Range; NM-New Mexico
 RTC- Redstone Test Center; Redstone Arsenal, AL
 AVMC- Aviation and Missiles Center; Redstone Arsenal, AL
 Cost for Prior Years Test Support is for efforts prior to Seeker Test Support

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	43.913	7.986	24.088	-	-	-	0.000	75.987	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army			Date: April 2022		
Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0205778A / Guided Multiple-Launch Rocket System (GMLRS)		Project (Number/Name) EG2 / GMLRS Alternative Warheads	

Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
Enhanced Alternative Warhead																												

Note
 Note: Enhanced Alternative Warhead efforts continue beyond FY22. Detailed schedules for Enhanced Alternative Warhead are shown under the schedule for EG3.

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / <i>Guided Multiple-Launch Rocket System (GMLRS)</i>	Project (Number/Name) EG2 / <i>GMLRS Alternative Warheads</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Enhanced Alternative Warhead	2	2020	4	2022

Note

Enhanced Alternative Warhead efforts continue beyond FY22. Detailed schedules for EAW are shown under the schedule for EG3.

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Army										Date: April 2022		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0205778A / Guided Multiple-Launch Rocket System (GMLRS)				Project (Number/Name) EG3 / Guided MLRS			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
EG3: Guided MLRS	-	64.831	36.645	20.180	-	20.180	51.759	46.455	46.470	41.466	0.000	307.806
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The United States (U.S.) Army continues to explore ways to enhance Guided Multiple Launch Rocket System (GMLRS) rockets and common components and to mitigate aging technology issues under Project EG3 Guided MLRS. The Army is requesting funding for the following GMLRS Research, Development, Test and Evaluation (RDT&E) activities: (1) evaluation of enhanced operational capabilities to provide more flexibility across the target set to include increased range, flight performance, and end-game optimization; (2) investigation of potential life cycle cost savings through mitigation of aging technology and second source qualification; (3) Preplanned Product Improvement (P3I); (4) evaluation and development of technologies to enhance overall product performance and survivability to include Assured Positioning, Navigation and Timing (APNT); and (5) system test and evaluation.

The Fiscal Year (FY) 2023 dollars in the amount of \$19.473 million will continue to investigate and develop Objective Additional Performance Attribute (APA) options including Extended Range GMLRS, APNT solutions, and continue qualification of key rocket upgrades.

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

	FY 2021	FY 2022	FY 2023
Title: GMLRS enhancements	7.331	8.164	11.987
Description: Develop and assess methods to improve rocket effectiveness. Continue to assess payload, motor, and guidance/control options to meet Objective Additional Performance Attributes (APAs).			
FY 2022 Plans: Testing to support development and qualification of the EAW onto the standard range GMLRS rocket. Testing activities include ground tests to assess warhead effectiveness and Engineering Development flight testing.			
FY 2023 Plans: FY 2023 funds system level test activities of the Enhanced Alternative Warhead (EAW) into a standard range GMLRS rocket.			
FY 2022 to FY 2023 Increase/Decrease Statement: FY 2023 funds increase to support Ground and Flight Tests in support of system level qualification.			
Title: GMLRS cost savings initiatives and obsolescence mitigation	-	2.665	-
Description: Address issues related to aging technology, study cost reduction initiatives and opportunities for second source supplier efficiencies, and increase system survivability.			
FY 2022 Plans:			

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Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / <i>Guided Multiple-Launch Rocket System (GMLRS)</i>	Project (Number/Name) EG3 / <i>Guided MLRS</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2021	FY 2022	FY 2023
<p>Conduct trade studies and perform cost benefit analyses on material changes to ER GMLRS components that are Cost Reduction Initiative (CRI) candidates.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Funds in FY 2023 will decrease due to prioritization towards completion of Extended Range GMLRS and system level testing for EAW.</p>				
<p>Title: GMLRS Assured Position Navigation and Timing (APNT)</p> <p>Description: Address issues related to maintaining accuracy in a contested environment, improving accuracy over longer ranges, and compliance with statutory GPS requirements.</p> <p>FY 2022 Plans: APNT development continues in FY 2022, and includes Systems Engineering level activities, development of firmware, test equipment development, prototype builds, and prequalification testing of the receiver prototype builds.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Decrease in funding from FY 2022 to FY 2023 is due to prioritization of funds towards testing activities for EAW and ER GMLRS and a decrease in requirements for APNT.</p>		0.243	14.480	-
<p>Title: Extended Range (ER) GMLRS and complementary rocket pod development</p> <p>Description: Complete rocket pod development and conduct system level ground and flight tests.</p> <p>FY 2022 Plans: Conduct ER GMLRS Flight Testing, perform post-flight performance analysis, target damage assessments.</p> <p>FY 2023 Plans: System qualification flight testing for ER GMLRS</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: Increase in funding supports ERG test activities.</p>		1.416	1.564	5.649
<p>Title: Extended Range (ER) GMLRS development</p> <p>Description: Qualification and integration of ER GMLRS.</p> <p>FY 2022 Plans:</p>		55.841	8.434	2.544

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Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / <i>Guided Multiple-Launch Rocket System (GMLRS)</i>	Project (Number/Name) EG3 / <i>Guided MLRS</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
OEM challenges and delays due to component hardware availability and qualification have extended the overall ER GMLRS development and qualification. FY22 plans include flight and launcher software development and associated cyber assessment and development of logistics products including technical publications and training devices. FY 2023 Plans: Continue launcher software integration associated with ERG. FY 2022 to FY 2023 Increase/Decrease Statement: Closeout of this effort is anticipated in FY 2023.			
Title: FY 2022 SBIR / STTR Transfer Description: FY 2022 Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR) FY 2022 Plans: FY 2022 SBIR / STTR Transfer FY 2022 to FY 2023 Increase/Decrease Statement: Decrease in FY 2023 due to SBIR / STTR Transfer in FY 2022	-	1.338	-
Accomplishments/Planned Programs Subtotals	64.831	36.645	20.180

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• C64400: <i>Guided MLRS Rocket (GMLRS)</i>	903.009	862.699	785.028	-	785.028	676.163	739.870	741.516	742.436	Continuing	Continuing
• EG2: <i>GMLRS Alternative Warheads</i>	7.986	24.088	0.000	-	0.000	-	-	-	-	0.000	32.074

Remarks
GMLRS Procurement funding includes C65404 and C65406.

D. Acquisition Strategy
Project EG3 Guided MLRS supports, investigates, and develops alternative material changes to improve the GMLRS family of munitions as they are identified by the material developer or combat developer. This project also supports APNT activities to improve the overall system performance in a contested environment, and mitigates performance shortfalls or supply chain limitations. The ER GMLRS effort is pursuing a strategy of modifying the current GMLRS system through the Engineering Change Proposal (ECP) process in order to increase its range. The Enhanced Alternative Warhead effort that has been previously funded under EG2 shall be completed under

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Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / <i>Guided Multiple-Launch Rocket System (GMLRS)</i>	Project (Number/Name) EG3 / <i>Guided MLRS</i>
<p>EG3. Where possible the improvements and modifications are incrementally integrated into the current GMLRS and ER GMLRS systems through the Engineering Change Proposal (ECP) process.</p> <p>Development, integration, and testing of GMLRS systems solutions, including test planning to support an annual PEO MS-led Multi-Domain Operations test/demonstration event beginning in FY23, to include biennial Survivability Resiliency/Cyber-Electromagnetic Activities exercises with an event planned in FY22.</p>		

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Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / Guided Multiple-Launch Rocket System (GMLRS)	Project (Number/Name) EG3 / Guided MLRS
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Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Government Program Management	MIPR	Various : RSA	16.369	2.679	Jan 2021	0.280	Jan 2022	2.318	Jan 2023	-		2.318	Continuing	Continuing	Continuing
FY 2022 SBIR / STTR Transfer	Various	Various : Various	-	-		1.338		-		-		-	0.000	1.338	-
Subtotal			16.369	2.679		1.618		2.318		-		2.318	Continuing	Continuing	N/A

Remarks
MIPR-Military Interdepartmental Purchase Request; RSA-Redstone Arsenal, Alabama; TBD-To Be Determined
Note that in FY 2023, EG3 funds all Government Program Management activities. In prior years, this was a shared cost between EG2 and EG3. Total cost for this activity in FY 2023 decreases as compared to FY 2022.

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Unitary Contracts/Multiple	SS/FPIF	LMMFC : Dallas, TX	60.370	5.980	Jan 2021	3.595	Jan 2022	-		-		-	Continuing	Continuing	Continuing
IM Development & Qualification Contracts/ Multiple	C/FPIF	Orbital ATK, Aerojet Rocketdyne : Rocket Center, WV; Bristow, VA	36.380	-		-		-		-		-	0.000	36.380	-
GMLRS Extended Range	SS/FFP	LMMFC : Dallas, TX	146.696	48.261	May 2021	2.172		-		-		-	Continuing	Continuing	Continuing
APNT Development	C/CPFF	Kord : Huntsville, AL	13.980	-		10.164	Jan 2022	-		-		-	Continuing	Continuing	Continuing
Alternative Extended Range Motor	TBD	AMS : TBD	19.972	-		-		-		-		-	0.000	19.972	-
Enhanced Alternative Warhead	C/FPIF	Kord : Huntsville, AL	24.964	-		-		1.700	Jul 2023	-		1.700	Continuing	Continuing	Continuing
Other Government Agencies	MIPR	Various : Various	13.712	6.473		10.395	Dec 2021	2.252	Dec 2022	-		2.252	0.000	32.832	-
Subtotal			316.074	60.714		26.326		3.952		-		3.952	Continuing	Continuing	N/A

Remarks
SS/FPIF-Sole Source/Fixed-Price Incentive Firm; LMMFC - Lockheed Martin Missile and Fire Control; TX - Texas; C/CPFF- Competitive/Cost Plus Fixed Fee; C/FPIF - Competitive/Fixed-Price Incentive Firm; WV - West Virginia; VA - Virginia; TBD - To Be Determined

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Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / Guided Multiple-Launch Rocket System (GMLRS)	Project (Number/Name) EG3 / Guided MLRS
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Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			

OGA costs in FY 2022 include ~\$6.19M in support of ER GMLRS and \$4.2M in support of APNT
OGA costs in FY 2023 include ~\$2.25M in support of ER GMLRS

Test and Evaluation (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Test Support	MIPR	Various : Various	44.265	1.363	Jan 2021	8.701	Jan 2022	5.000	Jan 2023	-		5.000	Continuing	Continuing	Continuing
Enhanced Alternative Warhead	MIPR	Various : Various	-	0.075		-		8.910		-		8.910	0.000	8.985	-
Subtotal			44.265	1.438		8.701		13.910		-		13.910	Continuing	Continuing	N/A

Remarks
Performing Activities include White Sands Missile Range (WSMR), Aviation and Missile Center (AvMC), Army Research Laboratory (ARL), and Redstone Test Center (RTC).

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	376.708	64.831	36.645	20.180	-	20.180	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / Guided Multiple-Launch Rocket System (GMLRS)	Project (Number/Name) EG3 / Guided MLRS

Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
Assess and improve GMLRS rockets																												
Enhanced Alternative Warhead Development and Qualification																												
Component Level Design through CDRs																												
System Level PDR																												
System Level CDR																												
Functional Configuration Audit EAW																												
System Qualification Testing																												
Aging Technology Mitigation/Cost Reduction Opportunities and 2nd Source																												
Assured Position, Navigation, and Timing																												
System Engineering																												
Prototype Builds																												
ER GMLRS																												
Extended Range GMLRS Development and Qualification																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army			Date: April 2022
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Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
ER GMLRS Design Verification Testing	█																											
ER GMLRS Engineering Development Testing	█																											
Delta Preliminary Design REVIEW	▲																											
ER GMLRS System Qualification (Ground) Testing			█																									
Critical Design Reviews			▲																									
ER GMLRS System Qualification Flight Testing					█																							
Engineering Change Proposal (ECP) Cut-in Decision										▲																		
ER GMLRS Operational Testing																												
ER GMLRS Functional Configuration Audit																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / <i>Guided Multiple-Launch Rocket System (GMLRS)</i>	Project (Number/Name) EG3 / <i>Guided MLRS</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Assess and improve GMLRS rockets	1	2015	4	2027
Enhanced Alternative Warhead Development and Qualification	2	2020	2	2024
Component Level Design through CDRs	2	2020	1	2024
System Level PDR	2	2022	2	2022
System Level CDR	1	2023	1	2023
Functional Configuration Audit EAW	2	2023	2	2023
System Qualification Testing	3	2023	2	2024
Aging Technology Mitigation/Cost Reduction Opportunities and 2nd Source	1	2015	4	2027
Second Source ER GMLRS Motor	4	2020	4	2020
Assured Position, Navigation, and Timing	3	2021	4	2026
System Engineering	3	2021	2	2023
Prototype Builds	4	2022	2	2023
ER GMLRS	2	2018	1	2024
Extended Range GMLRS Development and Qualification	2	2018	1	2024
Preliminary Design Review	3	2019	3	2019
ER GMLRS Design Verification Testing	3	2020	2	2021
ER GMLRS Engineering Development Testing	1	2021	3	2021
Delta Preliminary Design REview	1	2021	1	2021
ER GMLRS System Qualification (Ground) Testing	3	2021	1	2022
Critical Design Reviews	3	2021	3	2021
ER GMLRS System Qualification Flight Testing	3	2022	1	2024
Engineering Change Proposal (ECP) Cut-in Decision	2	2023	2	2023

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army **Date:** April 2022

Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0205778A / <i>Guided Multiple-Launch Rocket System (GMLRS)</i>	Project (Number/Name) EG3 / <i>Guided MLRS</i>
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Events	Start		End	
	Quarter	Year	Quarter	Year
ER GMLRS Operational Testing	4	2023	4	2023
ER GMLRS Functional Configuration Audit	1	2024	1	2024