



# Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-260



## **GMLRS/GMLRS AW**

As of December 31, 2011

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

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**UNCLASSIFIED**

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## Program Information

**Designation And Nomenclature (Popular Name)**

Guided Multiple Launch Rocket System/DPICM/Unitary/Alternative Warhead (GMLRS/GMLRS AW)

**DoD Component**

Army

## Responsible Office

**Responsible Office**

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**Date Assigned** July 14, 2011

## References

**SAR Baseline (Production Estimate)**

Army Acquisition Executive (AAE) Approved Acquisition Program Baseline (APB) dated May 30, 2003

**Approved APB**

Army Acquisition Executive (AAE) Approved Acquisition Program Baseline (APB) dated February 1, 2012

## Mission and Description

The mission of the Guided Multiple Launch Rocket System (GMLRS) is to attack/neutralize/suppress/destroy targets using indirect precision fires. GMLRS provides Field Artillery units with medium and long-range (over 70+ Km) fires while supporting brigade, division, corps, army, theater, Joint/Coalition Forces and Marine Air-Ground Task Forces in full, limited or expeditionary operations. GMLRS rocket is a solid propellant artillery rocket deployed from the M270A1 and the High Mobility Artillery Rocket System mobile launch vehicles. GMLRS uses an Inertial Measuring Unit with Global Positioning System assistance to guide the rocket to a specific point to deliver effects on a target. GMLRS is transported and fired in a Rocket Pod Container that consists of six rockets. GMLRS is currently designed to carry two warhead payload variants, GMLRS Dual Purpose Improved Conventional Munitions (GMLRS DPICM) and GMLRS Unitary (GMLRS-U). A third variant of the GMLRS, the Alternative Warhead (AW), entered the Engineering and Manufacturing Development Phase after successful completion of Milestone B on February 19, 2012.

### GMLRS DPICM Increment 1

The GMLRS DPICM (Increment 1) has a range of over 70+ Km, contains 404 DPICM, and is used to provide precision fires on area targets including personnel and thinly armored vehicles. The GMLRS DPICM was an international cooperative development program with five nations (United States, United Kingdom, France, Germany, and Italy).

### GMLRS Unitary (GMLRS-U) Increment 2

The GMLRS-U (Increment 2) is equipped with a 200-pound Unitary high explosive warhead, has a range up to 70+ Km, and is effective against multiple targets. Accuracy of the rocket has been demonstrated to be significantly less than 5 meters. While extremely accurate, the single warhead also limits collateral damage to areas surrounding the designated target.

### GMLRS AW Increment 3

The GMLRS AW (Increment 3) is currently designed to replace the DPICM, provide similar effects at comparable range, and eliminate the probability of Unexploded Ordnances (UXOs). All of the competing concepts for the AW will satisfy the UXO requirements as defined in the Department of Defense Policy on Cluster Munitions and Unintended Harm to Civilians, dated June 19, 2008.

## Executive Summary

The Guided Multiple Launch Rocket System (GMLRS) Alternative Warhead (AW) Sole Source Justification and Approval (J&A) for the Engineering and Manufacturing Development (EMD) Contract to Lockheed Martin Missiles and Fire Controls-Dallas (LMMFC-D) was approved by the Army Acquisition Executive (AAE) on April 29, 2011.

The Precision Fires Rocket & Missile Systems Project Office awarded the GMLRS Full Rate Production (FRP)-6 contract for 740 (including 409 United States (US) Army) GMLRS Unitary rocket pods and 512 (including 343 Army) Low Cost Reduced Range Practice Rocket pods on June 10, 2011, with initial deliveries planned for 1st Quarter FY 2013. The contract, valued at \$447.8M, satisfied FY 2011 hardware requirements for the US Army, the US Marine Corps, and Foreign Military Sales customers. The contract also includes Integrated Logistics Support Download/Demate of M-26 rockets, Obsolescence, Contractor Business Data Report, and a Contract Data Requirements List.

The Aviation and Missile Command Source Selection Authority completed the evaluation of the three competing AW designs on July 25, 2011, and selected the Alliant Techsystems, Inc (ATK) warhead for the GMLRS AW rocket. ATK has been designated as the Government-directed subcontractor to LMMFC-D for the EMD phase.

The GMLRS AW increment, which was approved for Milestone B on February 19, 2012, is being reported for the first time in this SAR. AW was reported in the December 31, 2010 GMLRS SAR, but not as part of the program of record.

There are no significant software-related issues with the program at this time.

**Threshold Breaches****APB Breaches**

<b>Schedule</b>		<input type="checkbox"/>
<b>Performance</b>		<input type="checkbox"/>
<b>Cost</b>	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
<b>Unit Cost</b>	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

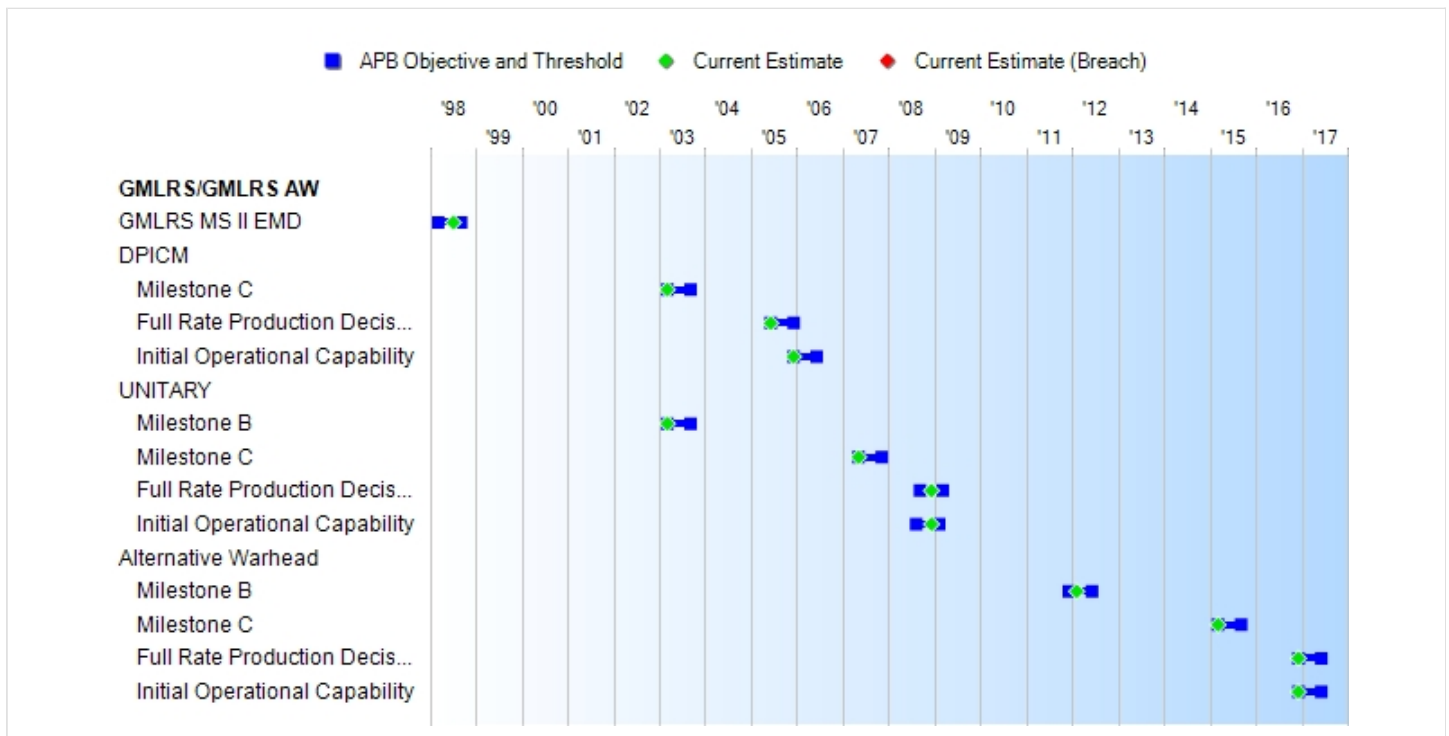
**Nunn-McCurdy Breaches****Current UCR Baseline**

PAUC	None
APUC	None

**Original UCR Baseline**

PAUC	None
APUC	None

### Schedule



Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate
GMLRS MS II EMD	MAR 1998	MAR 1998	SEP 1998	JUL 1998
DPICM				
Milestone C	MAR 2003	MAR 2003	SEP 2003	MAR 2003
Full Rate Production Decision	MAR 2005	JUN 2005	DEC 2005	JUN 2005
Initial Operational Capability	NOV 2006	DEC 2005	JUN 2006	DEC 2005
UNITARY				
Milestone B	MAR 2003	MAR 2003	SEP 2003	MAR 2003
Milestone C	SEP 2006	MAY 2007	NOV 2007	MAY 2007
Full Rate Production Decision	SEP 2008	SEP 2008	MAR 2009	DEC 2008
Initial Operational Capability	MAR 2008	AUG 2008	FEB 2009	DEC 2008
Alternative Warhead				
Milestone B	N/A	DEC 2011	JUN 2012	FEB 2012
Milestone C	N/A	MAR 2015	SEP 2015	MAR 2015
Full Rate Production Decision	N/A	DEC 2016	JUN 2017	DEC 2016
Initial Operational Capability	N/A	DEC 2016	JUN 2017	DEC 2016

**Acronyms And Abbreviations**

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DPICM - Dual Purpose Improved Conventional Munition  
EMD - Engineering and Manufacturing Development  
GMLRS - Guided Multiple Launch Rocket System  
MS - Milestone

**Change Explanations**

None



## Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold	Demonstrated Performance	Current Estimate	
DPICM					
Range					
Max (Km)	70	70	60	73	70
Min (Km)	10	10	15	15	10
Effectiveness					
(Expected Fractional Damage [EFD])	30%	30%	30%	30%+	30%+
Reliability	.95	.95	.92	.87	.92
Hazardous Dud Rate	0	0%	2%/4%	1.71%/3.75%	1.71%/3.75%
UNITARY					
Range					
Max (Km)	70	70	60	70+	70+
Min (Km)	10	10	15	15	15
Effectiveness	30%	30%	Functional Kill	TBD	30%
Reliability	.95	.95	.92	.92	.92
Alternative Warhead					(Ch-1)
Range					(Ch-1)
Max (Km)	N/A	70	60	TBD	70 (Ch-1)
Min (Km)	N/A	10	15	TBD	15 (Ch-1)
Effectiveness	N/A	30%	Functional Kill	TBD	30% (Ch-1)
Reliability	N/A	.95	.92	TBD	.92 (Ch-1)
Hazardous Dud Rate	N/A	0%	<1%	TBD	0% (Ch-1)

### Requirements Source:

Guided Multiple Launch Rocket system (GMLRS) Operational Requirements Document (ORD), Joint Requirements Oversight Memorandum (JROCM) 210-03, November 14, 2003 (includes Dual Purpose Improved Conventional Munitions). Multiple Launch Rocket System Guided Unitary Rocket ORD in Lieu of a Capabilities Production Document (CPD), JROCM 119-07, May 16, 2007. GMLRS System Alternative Warhead, Increment III, CPD, JROCM 150-11, November 8, 2011.

### Acronyms And Abbreviations

DPICM - Dual Purpose Improved Conventional Munition  
 GMLRS - Guided Multiple Launch Rocket System  
 JROCM - Joint Requirements Oversight Council Memorandum  
 Max Km - Maximum Kilometers  
 Min Km - Minimum Kilometers

### Change Explanations

(Ch-1) The Alternative Warhead (AW) increment has been added to this SAR and is being reported for the first time as part of the program of record. AW was reported in the December 31, 2010 GMLRS SAR, but not as part of the program of record. A new GMLRS/GMLRS AW APB, which includes this increment, was signed on February 1, 2012.

## Track To Budget

### RDT&E

APPN 2040	BA 07	PE 0673778A	(Army)
	Project 784	GMLRS	(Shared)
	Project 78G	GMLRS AW	

Project 784 Budget is shared with funding for an emerging requirement in support of a potential follow-on effort that will provide flexibility across the target set and reduce collateral damage. This shared effort covers Fiscal Year (FY) 2017 through FY 2020.

The Project 784 Budget as shown in the February 2012 R-Forms included the shared follow-on effort above in FY 2017 to FY 2020.

### Procurement

APPN 2032	BA 07		(Army)
	ICN C65404	GMLRS (Army)	
	ICN C65406	GMLRS (Army)	

Item Control Number (ICN) 65400 is the parent line for ICNs 65404 and C65406.

Per Army Budget Office P-Form Guidance, the February 2012 P-Forms showed additional FY 2013 requested Overseas Contingency Operations (OCO) dollars and associated quantity even though the OCO dollars were not included in the FY 2013 President's Budget (\$20.553M and 186 rockets for a total FY 2013 budget of \$239.200M. and 1794 rockets); Selected Acquisition Report also includes the FY 2013 OCO impacts; in all cases Army Procurement Objective remains as 43,560 rockets.

## Cost and Funding

### Cost Summary

#### Total Acquisition Cost and Quantity

Appropriation	BY2003 \$M			BY2003 \$M	TY \$M		
	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	485.4	779.1	857.0	776.6	500.5	881.3	883.3
Procurement	9294.8	4321.2	4753.3	4268.1	11348.4	5511.7	5528.2
Flyaway	9274.1	--	--	4237.8	11325.9	--	5493.5
Recurring	9202.5	--	--	4185.1	11247.7	--	5434.6
Non Recurring	71.6	--	--	52.7	78.2	--	58.9
Support	20.7	--	--	30.3	22.5	--	34.7
Other Support	19.1	--	--	28.2	20.8	--	32.0
Initial Spares	1.6	--	--	2.1	1.7	--	2.7
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	9780.2	5100.3	N/A	5044.7	11848.9	6393.0	6411.5

Confidence Level for Current APB Cost 50% - The confidence level used in establishing the cost estimate for GMLRS is 50% based on standard Department costing policy.

In accordance with the April 26, 2007, Acquisition Decision Memorandum, separate Average Procurement Unit Costs (APUCs) and Program Acquisition Unit Costs (PAUCs) have been prepared for all GMLRS configurations [Dual Purpose Improved Conventional Munitions (DPICM) and Unitary]. The GMLRS hardware will maintain approximately 80% commonality, regardless of which warhead is integrated into the systems. Consequently, changes in cost of any variant will directly affect the APUCs and PAUCs of the others.

The split-out APUC and PAUC of the GMLRS variants are as follows:

DPICM APUC (\$ .133M [BY 03\$]; Qty = 2472)  
 UNITARY APUC (\$ .095M [BY 03\$]; Qty = 34848)  
 AW APUC (\$ .099M [BY 03\$]; Qty = 6240)

DPICM PAUC (\$ .190M [BY 03\$]; Qty = 2565)  
 UNITARY PAUC (\$ .105M [BY 03\$]; Qty = 34990)  
 AW PAUC (\$ .123M [BY 03\$]; Qty = 6381)

Because all GMLRS Variants benefit from the Research, Development, Test and Evaluation future system enhancements (Insensitive Munitions, obsolescence, cost reduction initiatives), an artificial pro-ration would have to be made to include them in the split-out PAUCs above. Therefore, the split-out PAUCs above exclude the funding for these future enhancements. However, these dollars are included in the composite PAUC shown in the Unit Cost section.

<b>Quantity</b>	<b>SAR Baseline Prod Est</b>	<b>Current APB Production</b>	<b>Current Estimate</b>
RDT&E	235	376	376
Procurement	140004	43560	43560
Total	140239	43936	43936

## Cost and Funding

### Funding Summary

#### Appropriation and Quantity Summary FY2013 President's Budget / December 2011 SAR (TY\$ M)

Appropriation	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
RDT&E	576.2	44.6	67.3	75.0	52.0	25.1	7.0	36.1	883.3
Procurement	1779.1	333.2	239.2	237.7	252.1	277.7	363.0	2046.2	5528.2
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2013 Total	2355.3	377.8	306.5	312.7	304.1	302.8	370.0	2082.3	6411.5
PB 2012 Total	2423.5	377.8	356.0	372.4	371.2	379.7	416.2	1327.6	6024.4
Delta	-68.2	0.0	-49.5	-59.7	-67.1	-76.9	-46.2	754.7	387.1

Quantity	Undistributed	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
Development	376	0	0	0	0	0	0	0	0	376
Production	0	14754	2994	1794	1812	1806	2028	2862	15510	43560
PB 2013 Total	376	14754	2994	1794	1812	1806	2028	2862	15510	43936
PB 2012 Total	322	14904	2994	2796	2964	2838	3204	3546	10314	43882
Delta	54	-150	0	-1002	-1152	-1032	-1176	-684	5196	54

## Cost and Funding

### Annual Funding By Appropriation

#### Annual Funding TY\$

#### 2040 | RDT&E | Research, Development, Test, and Evaluation, Army

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
1998	--	--	--	--	--	--	13.6
1999	--	--	--	--	--	--	17.7
2000	--	--	--	--	--	--	26.8
2001	--	--	--	--	--	--	16.8
2002	--	--	--	--	--	--	45.6
2003	--	--	--	--	--	--	59.4
2004	--	--	--	--	--	--	54.4
2005	--	--	--	--	--	--	90.0
2006	--	--	--	--	--	--	98.3
2007	--	--	--	--	--	--	43.2
2008	--	--	--	--	--	--	33.5
2009	--	--	--	--	--	--	46.3
2010	--	--	--	--	--	--	18.4
2011	--	--	--	--	--	--	12.2
2012	--	--	--	--	--	--	44.6
2013	--	--	--	--	--	--	67.3
2014	--	--	--	--	--	--	75.0
2015	--	--	--	--	--	--	52.0
2016	--	--	--	--	--	--	25.1
2017	--	--	--	--	--	--	7.0
2018	--	--	--	--	--	--	6.9
2019	--	--	--	--	--	--	7.0
2020	--	--	--	--	--	--	7.2
2021	--	--	--	--	--	--	7.4
2022	--	--	--	--	--	--	7.6
<b>Subtotal</b>	<b>376</b>	--	--	--	--	--	<b>883.3</b>

**Annual Funding BY\$****2040 | RDT&E | Research, Development, Test, and Evaluation, Army**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2003 \$M</b>	<b>Non End Item Recurring Flyaway BY 2003 \$M</b>	<b>Non Recurring Flyaway BY 2003 \$M</b>	<b>Total Flyaway BY 2003 \$M</b>	<b>Total Support BY 2003 \$M</b>	<b>Total Program BY 2003 \$M</b>
1998	--	--	--	--	--	--	14.3
1999	--	--	--	--	--	--	18.4
2000	--	--	--	--	--	--	27.4
2001	--	--	--	--	--	--	17.0
2002	--	--	--	--	--	--	45.6
2003	--	--	--	--	--	--	58.3
2004	--	--	--	--	--	--	52.1
2005	--	--	--	--	--	--	83.8
2006	--	--	--	--	--	--	89.0
2007	--	--	--	--	--	--	38.2
2008	--	--	--	--	--	--	29.1
2009	--	--	--	--	--	--	39.7
2010	--	--	--	--	--	--	15.5
2011	--	--	--	--	--	--	10.1
2012	--	--	--	--	--	--	36.2
2013	--	--	--	--	--	--	53.6
2014	--	--	--	--	--	--	58.7
2015	--	--	--	--	--	--	40.0
2016	--	--	--	--	--	--	19.0
2017	--	--	--	--	--	--	5.2
2018	--	--	--	--	--	--	5.0
2019	--	--	--	--	--	--	5.0
2020	--	--	--	--	--	--	5.1
2021	--	--	--	--	--	--	5.1
2022	--	--	--	--	--	--	5.2
<b>Subtotal</b>	<b>376</b>	--	--	--	--	--	<b>776.6</b>



## Annual Funding TY\$

## 2032 | Procurement | Missile Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2003	822	110.4	--	13.1	123.5	6.6	130.1
2004	683	97.2	--	7.0	104.2	4.8	109.0
2005	954	96.9	--	3.7	100.6	11.3	111.9
2006	984	119.8	--	0.3	120.1	1.5	121.6
2007	925	123.4	--	0.9	124.3	0.7	125.0
2008	2070	241.8	--	20.8	262.6	1.1	263.7
2009	2646	298.7	--	10.1	308.8	0.4	309.2
2010	3228	343.7	--	--	343.7	0.4	344.1
2011	2442	264.1	--	--	264.1	0.4	264.5
2012	2994	332.8	--	--	332.8	0.4	333.2
2013	1794	238.8	--	--	238.8	0.4	239.2
2014	1812	237.3	--	--	237.3	0.4	237.7
2015	1806	248.7	--	3.0	251.7	0.4	252.1
2016	2028	275.8	--	--	275.8	1.9	277.7
2017	2862	362.5	--	--	362.5	0.5	363.0
2018	3402	418.8	--	--	418.8	0.5	419.3
2019	3450	428.8	--	--	428.8	0.5	429.3
2020	3522	439.0	--	--	439.0	0.5	439.5
2021	3600	449.5	--	--	449.5	0.5	450.0
2022	1536	241.5	--	--	241.5	0.5	242.0
2023	--	--	35.6	--	35.6	0.5	36.1
2024	--	--	29.5	--	29.5	0.5	30.0
<b>Subtotal</b>	<b>43560</b>	<b>5369.5</b>	<b>65.1</b>	<b>58.9</b>	<b>5493.5</b>	<b>34.7</b>	<b>5528.2</b>

**Annual Funding BY\$****2032 | Procurement | Missile Procurement, Army**

<b>Fiscal Year</b>	<b>Quantity</b>	<b>End Item Recurring Flyaway BY 2003 \$M</b>	<b>Non End Item Recurring Flyaway BY 2003 \$M</b>	<b>Non Recurring Flyaway BY 2003 \$M</b>	<b>Total Flyaway BY 2003 \$M</b>	<b>Total Support BY 2003 \$M</b>	<b>Total Program BY 2003 \$M</b>
2003	822	106.1	--	12.6	118.7	6.3	125.0
2004	683	90.9	--	6.6	97.5	4.5	102.0
2005	954	88.2	--	3.4	91.6	10.2	101.8
2006	984	106.7	--	0.3	107.0	1.3	108.3
2007	925	107.8	--	0.8	108.6	0.6	109.2
2008	2070	207.9	--	18.0	225.9	0.9	226.8
2009	2646	253.6	--	8.7	262.3	0.3	262.6
2010	3228	286.7	--	--	286.7	0.3	287.0
2011	2442	216.2	--	--	216.2	0.3	216.5
2012	2994	267.8	--	--	267.8	0.4	268.2
2013	1794	188.0	--	--	188.0	0.3	188.3
2014	1812	183.5	--	--	183.5	0.3	183.8
2015	1806	188.9	--	2.3	191.2	0.3	191.5
2016	2028	205.8	--	--	205.8	1.4	207.2
2017	2862	265.7	--	--	265.7	0.4	266.1
2018	3402	301.6	--	--	301.6	0.4	302.0
2019	3450	303.3	--	--	303.3	0.4	303.7
2020	3522	305.1	--	--	305.1	0.3	305.4
2021	3600	306.8	--	--	306.8	0.4	307.2
2022	1536	161.9	--	--	161.9	0.4	162.3
2023	--	--	23.5	--	23.5	0.3	23.8
2024	--	--	19.1	--	19.1	0.3	19.4
<b>Subtotal</b>	<b>43560</b>	<b>4142.5</b>	<b>42.6</b>	<b>52.7</b>	<b>4237.8</b>	<b>30.3</b>	<b>4268.1</b>

## Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
<b>Approval Date</b>	3/24/2003	2/19/2012
<b>Approved Quantity</b>	13998	17976
<b>Reference</b>	ADM	ADM
<b>Start Year</b>	2003	2003
<b>End Year</b>	2005	2015

At the GMLRS Dual Purpose Improved Conventional Munition (DPICM) Milestone C, in the March 24, 2003, Acquisition Decision Memorandum (ADM), the Army Acquisition Executive (AAE) authorized a Low Rate Initial Production (LRIP) quantity not to exceed 13,998 rockets. This LRIP quantity was based on the Army Acquisition Objective (AAO) of 140,004. The actual GMLRS DPICM LRIP quantity was 2,459, of which 498 were GMLRS Unitary Urgent Material Release units.

In the May 7, 2006 ADM, the Director, Force Development, changed the AAO to an Army Procurement Objective of 43,560 rockets. At the GMLRS Unitary Milestone C, in the May 2, 2007, ADM, the AAE authorized a GMLRS Unitary LRIP quantity not to exceed 3,480 (which was based on 34,848, the total expected Procurement quantity for the GMLRS Unitary variant). The actual GMLRS Unitary LRIP quantity was 2,484 units.

An AW Milestone B ADM was signed on February 19, 2012. The AW LRIP quantity of 498 does not exceed 10% of the total planned buy for AW (6240) as established in section 2400 of title 10, United States Code.

The value in the table above for total LRIP approved quantity (17976) is the summation of 13998 GMLRS DPICM Rockets plus 3480 GMLRS Unitary Rockets, plus 498 GMLRS AW Rockets.

## Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Memo
Japan	5/13/2011	168	25.0	Unitary rockets.
Singapore	2/18/2011	84	11.7	Unitary rockets
Jordan	1/17/2010	432	60.0	Unitary rockets.
Japan	2/13/2009	180	24.7	Unitary rockets.
Bahrain	12/5/2008	36	6.0	Unitary rockets.
Singapore	12/5/2007	108	15.0	Unitary rockets.
United Arab Emirates	8/1/2007	1560	212.5	DPICM and Unitary rockets.

The Memorandum of Understanding Partner nations continue to procure GMLRS rockets from the United States production line.

The United Kingdom (UK) , Germany, France and Italy are Cooperative Partners and are not FMS customers. The UK has procured 2844 rockets, of which over 750+ have been successfully fired in a combat environment to support US Forces. Germany has procured 444 rockets under GMLRS Full Rate Production (FRP) I, III, IV and V contracts. France has procured 270 rockets under GMLRS FRP IV and V contracts. Italy is procuring 66 rockets under the GMLRS FRP VII contract, which will be awarded in the next 30-60 days.

## Nuclear Cost

None

**Unit Cost****Unit Cost Report**

	BY2003 \$M	BY2003 \$M	
Unit Cost	Current UCR Baseline (FEB 2012 APB)	Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	5100.3	5044.7	
Quantity	43936	43936	
Unit Cost	0.116	0.115	-0.86
Average Procurement Unit Cost (APUC)			
Cost	4321.2	4268.1	
Quantity	43560	43560	
Unit Cost	0.099	0.098	-1.01

	BY2003 \$M	BY2003 \$M	
Unit Cost	Revised Original UCR Baseline (JUN 2007 APB)	Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	4578.4	5044.7	
Quantity	43795	43936	
Unit Cost	0.105	0.115	+9.52
Average Procurement Unit Cost (APUC)			
Cost	3966.7	4268.1	
Quantity	43560	43560	
Unit Cost	0.091	0.098	+7.69

In accordance with the April 26, 2007 Acquisition Decision Memorandum, separate APUCs and PAUCs have been prepared for all GMLRS configurations [Dual Purpose Improved Conventional Munitions (DPICM) and Unitary]. The GMLRS hardware will maintain approximately 80% commonality, regardless of which warhead is integrated into the systems. Consequently, changes in cost of any variant will directly affect the APUCs and PAUCs of the others.

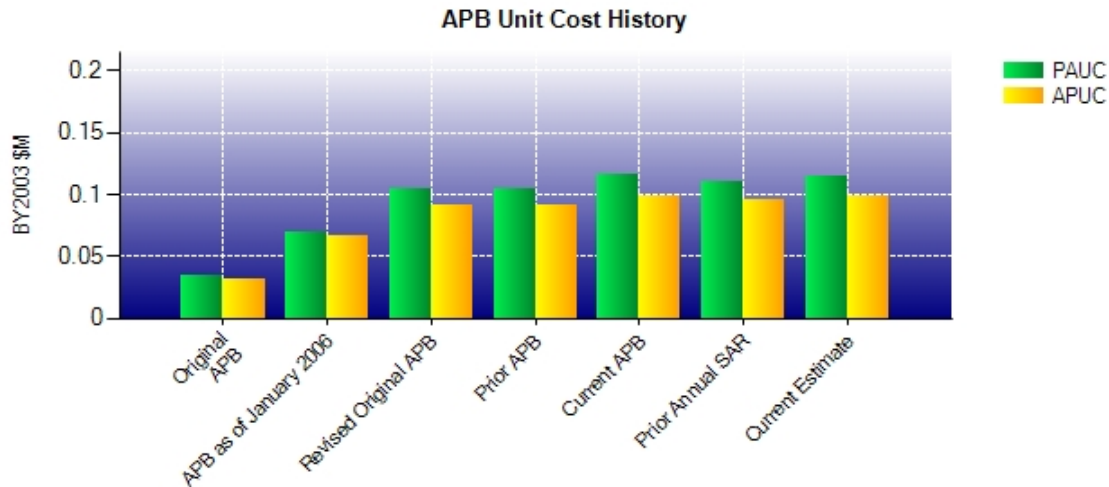
The split-out APUC and PAUC of the GMLRS variants are as follows:

DPICM APUC (\$.133M [BY 03\$]; Qty = 2472)  
 UNITARY APUC (\$.095M [BY 03\$]; Qty = 34848)  
 AW APUC (\$.099M [BY 03\$]; Qty = 6240)

DPICM PAUC (\$.190M [BY 03\$]; Qty = 2565)  
 UNITARY PAUC (\$.105M [BY 03\$]; Qty = 34990)  
 AW PAUC (\$.123M [BY 03\$]; Qty = 6381)

Because all GMLRS Variants benefit from the Research, Development, Test and Evaluation future system enhancements (Insensitive Munitions, obsolescence, cost reduction initiatives), an artificial pro-ration would have to be made to include them in the split-out PAUCs above. Therefore, the split-out PAUCs above exclude the funding for these future enhancements. However, these dollars are included in the composite PAUC shown in the Unit Cost section.

### Unit Cost History



	Date	BY2003 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
<b>Original APB</b>	MAR 1998	0.034	0.032	0.039	0.037
<b>APB as of January 2006</b>	MAY 2003	0.070	0.066	0.084	0.081
<b>Revised Original APB</b>	JUN 2007	0.105	0.091	0.133	0.119
<b>Prior APB</b>	JUN 2007	0.105	0.091	0.133	0.119
<b>Current APB</b>	FEB 2012	0.116	0.099	0.146	0.127
<b>Prior Annual SAR</b>	DEC 2010	0.111	0.095	0.137	0.120
<b>Current Estimate</b>	DEC 2011	0.115	0.098	0.146	0.127

### SAR Unit Cost History

#### Initial SAR Baseline to Current SAR Baseline (TY \$M)

Initial PAUC Dev Est	Changes								PAUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.039	-0.003	0.001	0.001	0.009	0.037	0.000	0.000	0.045	0.084

#### Current SAR Baseline to Current Estimate (TY \$M)

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.084	0.013	-0.013	0.032	0.000	0.030	0.000	0.000	0.062	0.146

**Initial SAR Baseline to Current SAR Baseline (TY \$M)**

Initial APUC Dev Est	Changes								APUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.037	-0.003	0.004	0.001	0.006	0.036	0.000	0.000	0.044	0.081

**Current SAR Baseline to Current Estimate (TY \$M)**

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.081	0.013	-0.025	0.032	0.000	0.026	0.000	0.000	0.046	0.127

**SAR Baseline History**

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone II	N/A	MAR 1998	MAR 1998	JUL 1998
Milestone C	N/A	OCT 2003	N/A	N/A
IOC	N/A	APR 2004	N/A	N/A
Total Cost (TY \$M)	N/A	1688.6	11848.9	6411.5
Total Quantity	N/A	43182	140239	43936
Prog. Acq. Unit Cost (PAUC)	N/A	0.039	0.084	0.146

The Milestone C and Initial Operational Capability reported above reflect the Dual Purpose Improved Conventional Munition variant. Milestone C for Unitary variant was approved May 2007.



**Cost Variance****Cost Variance Summary**

<b>Summary Then Year \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Prod Est)	500.5	11348.4	--	11848.9
Previous Changes				
Economic	+4.8	+489.9	--	+494.7
Quantity	+190.1	-8922.7	--	-8732.6
Schedule	+8.7	+1270.8	--	+1279.5
Engineering	--	+10.8	--	+10.8
Estimating	+100.1	+1015.0	--	+1115.1
Other	--	--	--	--
Support	--	+8.0	--	+8.0
Subtotal	+303.7	-6128.2	--	-5824.5
Current Changes				
Economic	+4.1	+78.5	--	+82.6
Quantity	+5.9	--	--	+5.9
Schedule	--	+113.9	--	+113.9
Engineering	--	--	--	--
Estimating	+69.1	+112.8	--	+181.9
Other	--	--	--	--
Support	--	+2.8	--	+2.8
Subtotal	+79.1	+308.0	--	+387.1
Total Changes	+382.8	-5820.2	--	-5437.4
CE - Cost Variance	883.3	5528.2	--	6411.5
CE - Cost & Funding	883.3	5528.2	--	6411.5

<b>Summary Base Year 2003 \$M</b>				
	<b>RDT&amp;E</b>	<b>Proc</b>	<b>MILCON</b>	<b>Total</b>
SAR Baseline (Prod Est)	485.4	9294.8	--	9780.2
Previous Changes				
Economic	--	--	--	--
Quantity	+154.4	-5929.7	--	-5775.3
Schedule	+8.2	+215.9	--	+224.1
Engineering	--	+8.5	--	+8.5
Estimating	+71.6	+561.0	--	+632.6
Other	--	--	--	--
Support	--	+7.3	--	+7.3
Subtotal	+234.2	-5137.0	--	-4902.8
Current Changes				
Economic	--	--	--	--
Quantity	+4.6	--	--	+4.6
Schedule	--	+25.8	--	+25.8
Engineering	--	--	--	--
Estimating	+52.4	+82.2	--	+134.6
Other	--	--	--	--
Support	--	+2.3	--	+2.3
Subtotal	+57.0	+110.3	--	+167.3
Total Changes	+291.2	-5026.7	--	-4735.5
CE - Cost Variance	776.6	4268.1	--	5044.7
CE - Cost & Funding	776.6	4268.1	--	5044.7

Previous Estimate: December 2010

RDT&E	\$M	
	Base Year	Then Year
<b>Current Change Explanations</b>		
Revised escalation indices. (Economic)	N/A	+4.1
Increase in Alternative Warhead (AW) Research, Development, Test & Engineering (RDT&E) Qty from 322 to 376 rockets. (Quantity)	+4.6	+5.9
Updated AW Development Engineering due to RDT&E Qty increase. (Estimating)	+1.6	+2.1
Updated AW Contractor Test Support due to RDT&E Qty increase. (Estimating)	+2.9	+3.7
Updated AW Government Test Support due to RDT&E Qty increase. (Estimating)	+6.0	+7.7
Adjustment for current and prior escalation. (Estimating)	-1.0	-1.2
FY 2011 Congressional reduction and rescission in AW RDT&E (Project Code 78G). (Estimating)	-26.8	-32.4
FY 2013 Realignment from GMLRS Missiles Procurement, Army (MIPA) to AW RDT&E (Project Code 78G). (Estimating)	+20.4	+25.6
Reinstallation of Insensitive Munition requirements in Unitary RDT&E (Project Code 784). (Estimating)	+48.5	+62.6
Revised Obsolescence Estimate (Project 784) due to Army Budget Changes. (Estimating)	+0.8	+1.0
RDT&E Subtotal	+57.0	+79.1

Procurement	\$M	
	Base Year	Then Year
<b>Current Change Explanations</b>		
Revised escalation indices. (Economic)	N/A	+78.5
Stretch-out of procurement buy profile to FY 2022. (Schedule)	0.0	+74.3
Additional schedule variance of two years (to 2024) for fielding/fixed cost due to buy schedule extension. (Schedule)	+25.8	+39.6
Adjustment for current and prior escalation. (Estimating)	-10.0	-12.1
Revised estimate for Engineering Services. (Estimating)	+9.6	+15.0
Decrease in Government Test estimate. (Estimating)	-8.6	-10.6
Revised estimate for Government System Engineering/Program Management Manpower estimate. (Estimating)	-17.2	-22.6
Updates to Download/Demate estimate (Estimating)	-2.7	-3.2
Increase to reflect updated Obsolescence estimate. (Estimating)	+10.7	+14.9
Methodology changes in estimating rocket hardware to include new learning curve and factor assumptions due to AW Milestone B reconciliation with Deputy Assistant Secretary of the Army for Cost and Economics. (Estimating)	+99.3	+129.5
Updated Rocket Motor estimate due to AW Milestone B Reconciliation. (Estimating)	+21.3	+27.5
FY 2013 realignment of funds from GMLRS Missile Procurement, Army (MIPA) to AW Project Code 78G. (Estimating)	-20.2	-25.6
Updated Training Device estimate to extend two more years due to rocket buy schedule stretch-out. (Support)	+1.3	+1.4
Increase in Initial Spares due to updating the Depot Initial Spares estimate for the AW Variant. (Support)	+1.0	+1.4
Procurement Subtotal	+110.3	+308.0

## Contracts

### Appropriation: Procurement

Contract Name	<b>GMLRS FRP I</b>
Contractor	LMMFC-D
Contractor Location	Grand Prairie, TX 75051-0000
Contract Number, Type	W31P4Q-06-C-0002, FFP/CPFF
Award Date	December 28, 2005
Definitization Date	December 28, 2005

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
82.8	N/A	822	176.2	N/A	1772	175.6	175.6

### Cost And Schedule Variance Explanations

Cost and Schedule variance reporting is not required on this FFP/CPFF contract.

### Contract Comments

The difference between the initial contract price target and the current contract price target is due to the fact that initial contract price target and current contract price target experience various up and down dollar changes over the years. Therefore the difference can be attributed either to option exercises, change order incorporations, negotiated reopener clauses, etc.

Cost and Schedule reporting is not required on the FFP portion of this contract. The value of the CPFF portion of the contract is below the \$20M threshold for Earned Value Management (EVM) reporting. In lieu of EVM, the Program Management Office is using a Performance Cost Report to monitor contract expenditures against the budget. The CPFF portion of this contract had a total value of \$0.794.

**Appropriation: Procurement**

Contract Name	<b>GMLRS FRP II</b>
Contractor	LMMFC-D
Contractor Location	Grand Prairie, TX 75051-0000
Contract Number, Type	W31P4Q-07-C-0001, FFP/CPFF
Award Date	December 22, 2006
Definitization Date	December 22, 2006

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
78.0	N/A	702	253.9	N/A	2298	253.8	256.8

**Cost And Schedule Variance Explanations**

Cost and Schedule variance reporting is not required on this FFP/CPFF contract.

**Contract Comments**

The difference between the initial contract price target and the current contract price target is due to the fact that initial contract price target and current contract price target experience various up and down dollar changes over the years. Therefore the difference can be attributed either to option exercises, change order incorporations, negotiated reopener clauses, etc.

Cost and Schedule reporting is not required on the FFP portion of this contract. The value of the CPFF portion of the contract is below the \$20M threshold for Earned Value Management (EVM) reporting. In lieu of EVM, the Program Management Office is using a Performance Cost Report to monitor contract expenditures against the budget. The CPFF portion of this contract had a total value of \$3.055.

**Appropriation: Procurement**

Contract Name	<b>GMLRS FRP III</b>
Contractor	LMMFC-D
Contractor Location	Grand Prairie, TX 75051-0000
Contract Number, Type	W31P4Q-08-C-0021, FFP/CPFF
Award Date	December 27, 2007
Definitization Date	December 27, 2007

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
245.6	N/A	2184	444.6	N/A	4268	442.4	442.4

**Cost And Schedule Variance Explanations**

Cost and Schedule variance reporting is not required on this FFP/CPFF contract.

**Contract Comments**

The difference between the initial contract price target and the current contract price target is due to the fact that initial contract price target and current contract price target experience various up and down dollar changes over the years. Therefore the difference can be attributed either to option exercises, change order incorporations, negotiated reopener clauses, etc.

Cost and Schedule reporting is not required on the FFP portion of this contract. The value of the CPFF portion of the contract is below the \$20M threshold for Earned Value Management (EVM) reporting. In lieu of EVM, the Program Management Office is using a Performance Cost Report to monitor contract expenditures against the budget. The CPFF portion of this contract had a total value of \$12.837.

**Appropriation: Procurement**

Contract Name	<b>GMLRS FRP IV</b>
Contractor	LMMC-D
Contractor Location	Grand Prairie, TX 75051-0000
Contract Number, Type	W31P4Q-09-C-0001, FFP/CPFF
Award Date	December 29, 2008
Definitization Date	December 29, 2008

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
371.6	N/A	3582	548.2	N/A	3582	548.2	548.2

**Cost And Schedule Variance Explanations**

Cost and Schedule variance reporting is not required on this FFP/CPFF contract.

**Contract Comments**

The difference between the initial contract price target and the current contract price target is due to the fact that initial contract price target and current contract price target experience various up and down dollar changes over the years. Therefore the difference can be attributed either to option exercises, change order incorporations, negotiated reopener clauses, etc.

Cost and Schedule reporting is not required on the FFP portion of this contract. The value of the CPFF portion of the contract is below the \$20M threshold for Earned Value Management (EVM) reporting. In lieu of EVM, the Program Management Office is using a Performance Cost Report to monitor contract expenditures against the budget. The CPFF portion of this contract had a total value of \$11.337.

**Appropriation: Procurement**

Contract Name	<b>GMLRS FRP V</b>
Contractor	LMMFC-D
Contractor Location	Grand Prairie, TX 75051-0000
Contract Number, Type	W31P4Q-10-C-0270, FFP/CPFF
Award Date	May 13, 2010
Definitization Date	July 12, 2010

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
474.2	N/A	4566	467.4	N/A	4566	467.4	467.4

**Cost And Schedule Variance Explanations**

Cost and Schedule variance reporting is not required on this FFP/CPFF contract.

**Contract Comments**

The difference between the initial contract price target and the current contract price target is due to the fact that MOD P0020 caused the total obligated amount of Contract W31P4Q-10-C-0270, FRP5, to decrease by \$7.177, from \$474.5 to \$467.3. This action was caused by the deletion of CLINs 0039AA and 0039AB (Unitary Residual Critical Material and LCRRPR Residual Critical Material, respectively).

Cost and Schedule reporting is not required on the FFP portion of this contract. The value of the CPFF portion of the contract is below the \$20M threshold for Earned Value Management (EVM) reporting. In lieu of EVM, the Program Management Office is using a Performance Cost Report to monitor contract expenditures against the budget. The CPFF portion of this contract had a total value of \$17.673.



**Appropriation: Procurement**

Contract Name	<b>GMLRS FRP VI</b>
Contractor	LMMFC-D
Contractor Location	Grand Prairie, TX 75051-0000
Contract Number, Type	W31P4Q-11-C-0166, FFP/CPFF
Award Date	June 10, 2011
Definitization Date	June 10, 2011

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
445.4	N/A	8764	482.7	N/A	8764	482.7	482.7

**Cost And Schedule Variance Explanations**

Cost and Schedule variance reporting is not required on this FFP/CPFF contract.

**Contract Comments**

The difference between the initial contract price target and the current contract price target is due to the fact that initial contract price target and current contract price target experience various up and down dollar changes over the years. Therefore the difference can be attributed either to option exercises, change order incorporations, negotiated reopener clauses, etc.

This is the first time this contract is being reported.

Cost and Schedule reporting is not required on the FFP portion of this contract. The value of the CPFF portion of the contract is below the \$20M threshold for Earned Value Management (EVM) reporting. In lieu of EVM, the Program Management Office is using a Performance Cost Report to monitor contract expenditures against the budget. The CPFF portion of this contract had a total value of \$9.599.

## Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	376	235	376	62.50%
Production	9450	9450	43560	21.69%
Total Program Quantities Delivered	9826	9685	43936	22.04%

Expenditures and Appropriations (TY \$M)			
Total Acquisition Cost	6411.5	Years Appropriated	15
Expenditures To Date	2034.4	Percent Years Appropriated	55.56%
Percent Expended	31.73%	Appropriated to Date	2733.1
Total Funding Years	27	Percent Appropriated	42.63%

The Plan to Date Development Deliveries were incorrect in the December 31, 2010 SAR, and should have been 376 in lieu of 427. The "as of" date of the current information is February 7, 2012.

The Plan to Date Production Deliveries and the Actual to Date Production Deliveries were incorrect in the December 31, 2010 SAR, and should have been 9450 in lieu of 9642. The "as of" date of the current information is February 7, 2012.

## Operating and Support Cost

### Assumptions And Ground Rules

The Operating and Support (O&S) values shown are Operation and Maintenance, Army (OMA)-funded elements as shown in the AW Milestone B Army Cost Position (Cost Review Board, December 2011).

The unit of measure for tracking O&S costs is the Rocket Pod (6 Rockets per Pod).

The service life of the Guided Multiple Launch Rocket System is ten (10) years.

TOTAL ROCKET QTY      43560  
TOTAL POD QTY            7260

There is no GMLRS antecedent system.

Costs BY2003 \$K		
Cost Element	GMLRS/GMLRS AW Avg Annual Cost per Rocket Pod	No GMLRS Antecedent
Unit-Level Manpower	0.000	--
Unit Operations	0.000	--
Maintenance	1.079	--
Sustaining Support	1.018	--
Continuing System Improvements	0.185	--
Indirect Support	0.000	--
Other	0.000	--
Total Unitized Cost (Base Year 2003 \$)	2.282	--

Total O&S Costs \$M	GMLRS/GMLRS AW	No GMLRS Antecedent
Base Year	165.7	--
Then Year	252.9	--

Demilitarization cost for GMLRS (Ammo-funded) is not included in the estimate above. The estimated Demilitarization cost is \$99.9M (TY\$) as shown in the AW Milestone B Army Cost Position (Cost Review Board, December 2011).