



Selected Acquisition Report (SAR)

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



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

As of December 31, 2012

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Program Information	3
Responsible Office	3
References	3
Mission and Description	4
Executive Summary	5
Threshold Breaches	6
Schedule	7
Performance	9
Track To Budget	11
Cost and Funding	12
Low Rate Initial Production	18
Foreign Military Sales	19
Nuclear Cost	19
Unit Cost	20
Cost Variance	24
Contracts	27
Deliveries and Expenditures	35
Operating and Support Cost	36

Program Information

Program Name

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

DoD Component

Army

Responsible Office

Responsible Office

COL Gary D. Stephens
Martin Road Building 5250
Precision Fires Rocket & Missile Sys
ATTN: SFAE-MSLS-PF
Redstone Arsenal, AL 35898-8000
gary.stephens1@us.army.mil

Phone 256-876-1195
Fax 256-955-7958
DSN Phone 746-7958
DSN Fax 645-8820

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 GMLRS is to attack/neutralize/suppress/destroy targets using indirect precision fires. GMLRS provides Field Artillery units with medium and long-range (over 70+ kilometers (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 (HIMARS) mobile launch vehicles. GMLRS uses an Inertial Measuring Unit (IMU) with Global Positioning System (GPS) 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 (RPC) 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). 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 Precision Fires Rocket and Missile Systems (PFRMS) Project Office awarded the GMLRS Full Rate Production (FRP) VII contract for 551 (including 494 United States Army) GMLRS Unitary rocket pods on June 29, 2012. Deliveries begin in the 1st quarter of FY 2014. The firm fixed price contract satisfies FY 2012 hardware requirements for the United States Army, the United States Marine Corps, and international customers. The Army Acquisition Executive (AAE) approved a five year Justification and Approval (J&A) for the PFRMS Project Office to procure GMLRS Unitary rockets through a sole source contract during FY 2013 - 2017. The PFRMS Project Office awarded the GMLRS FRP VIII (FRP VII Option) contract for 374 (including 268 United States Army) GMLRS Unitary rocket pods on December 28, 2012. The modification to the FRP VII contract satisfies the FY 2013 hardware requirements for the United States Army and the United States Marine Corps.

The PFRMS Project Office awarded the GMLRS AW firm fixed price contract for the Engineering and Manufacturing Development (EMD) phase of the program on March 30, 2012. EMD is a 36 month effort valued at \$79.4M. The AAE approved the GMLRS AW Acquisition Strategy on January 7, 2013.

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

Threshold Breaches

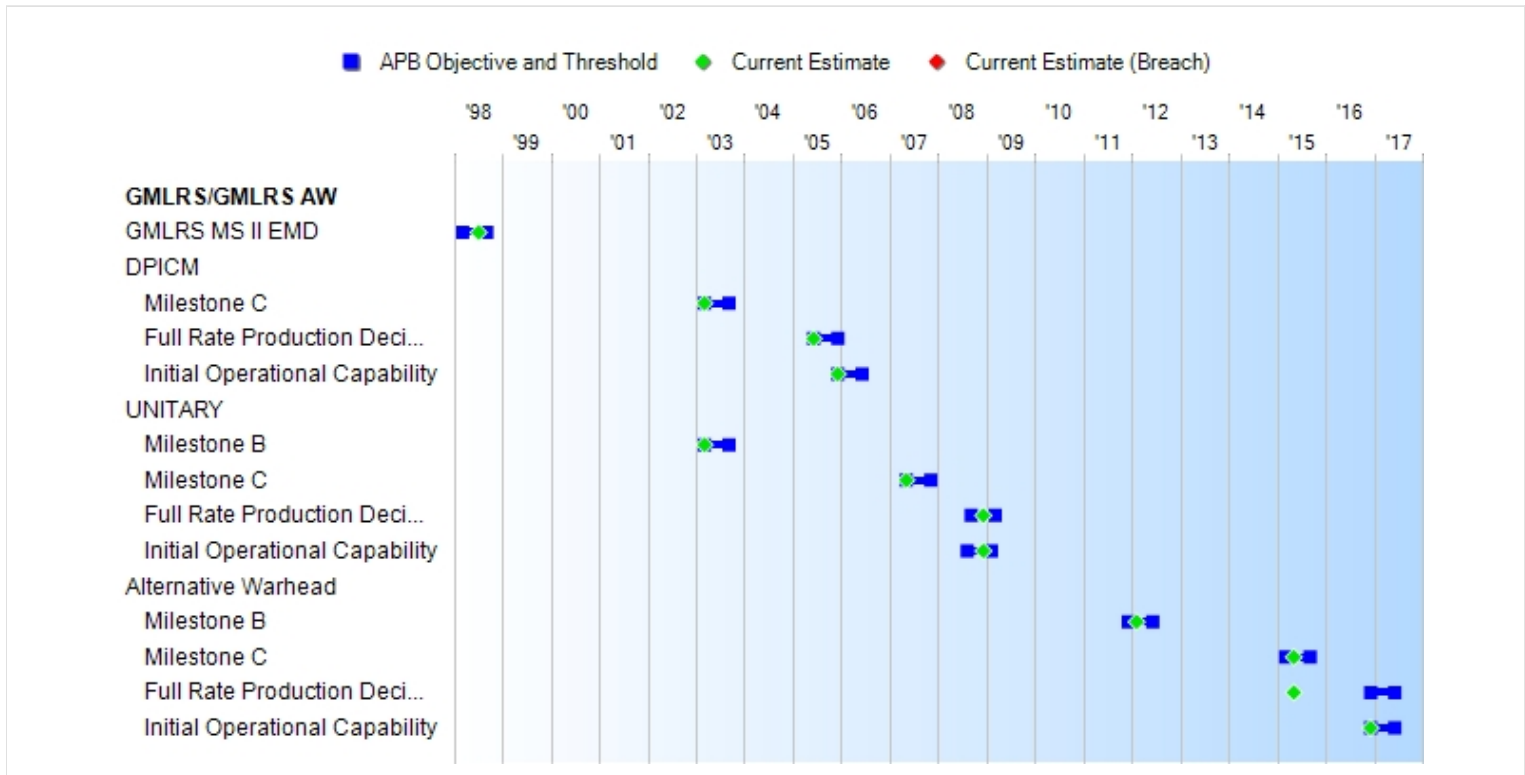
APB Breaches

Schedule		<input type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
O&S Cost		<input type="checkbox"/>
Unit Cost	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	MAY 2015 (Ch-1)
Full Rate Production Decision	N/A	DEC 2016	JUN 2017	MAY 2015 (Ch-1)
Initial Operational Capability	N/A	DEC 2016	JUN 2017	DEC 2016

Acronyms And Abbreviations

DPICM - Dual Purpose Improved Conventional Munition
EMD - Engineering and Manufacturing Development
MS - Milestone

Change Explanations

(Ch-1) The Alternative Warhead (AW) Milestone C changed from March 2015 to May 2015 and Full Rate Production changed from December 2016 to May 2015 due to a combined effort as part of a efficiency approach to the AW program. The approach leverages the AW similarity to Unitary.

Performance

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

Requirements Source: Operational Requirements Document (ORD) dated November 14, 2003 (includes Dual Purpose Improved Conventional Munitions), Multiple Launch Rocket System Guided Unitary Rocket ORD dated May 16, 2007 (in lieu of Capability Production Document (CPD)), and GMLRS System Alternative Warhead Increment III Capability Development Document (CDD) dated November 8, 2011

Acronyms And Abbreviations

DPICM - Dual Purpose Improved Conventional Munitions
 Max Km - Maximum Kilometers
 Min Km - Minimum Kilometers
 N/A - Not Applicable
 TBD - To Be Determined

Change Explanations

None

Memo

The GMLRS Reliability Working Group conducted a GMLRS DPICM Reliability Scoring Conference on February 11, 2010. The GMLRS DPICM Reliability was assessed at 0.87 (108 successes/ 124 attempts). The GMLRS DPICM Operational Requirements Document requirement is 0.92.

Track To Budget**RDT&E**

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

Procurement

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

Item Control Number (ICN) C64400 is the parent line for ICNs C65404 and C65406.

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	771.9	500.5	881.3	881.2
Procurement	9294.8	4321.2	4753.3	4417.1	11348.4	5511.7	5812.7
Flyaway	9274.1	--	--	4386.5	11325.9	--	5777.1
Recurring	9202.5	--	--	4328.1	11247.7	--	5710.4
Non Recurring	71.6	--	--	58.4	78.2	--	66.7
Support	20.7	--	--	30.6	22.5	--	35.6
Other Support	19.1	--	--	28.2	20.8	--	32.5
Initial Spares	1.6	--	--	2.4	1.7	--	3.1
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	5189.0	11848.9	6393.0	6693.9

Confidence Level for Current APB Cost 50% -

The confidence level used in establishing the cost estimate for GMLRS/GMLRS AW is 50% based on standard Department of the Army costing policy.

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

Cost and Funding

Funding Summary

Appropriation and Quantity Summary FY2014 President's Budget / December 2012 SAR (TY\$ M)

Appropriation	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
RDT&E	619.5	67.3	69.3	55.4	27.4	7.0	6.9	28.4	881.2
Procurement	2112.3	239.2	237.2	250.0	256.9	334.0	399.2	1983.9	5812.7
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 2014 Total	2731.8	306.5	306.5	305.4	284.3	341.0	406.1	2012.3	6693.9
PB 2013 Total	2733.1	306.5	312.7	304.1	302.8	370.0	426.2	1656.1	6411.5
Delta	-1.3	0.0	-6.2	1.3	-18.5	-29.0	-20.1	356.2	282.4

Program funding and production quantities listed in this SAR are consistent with the FY 2014 President's Budget (PB). The FY 2014 PB did not reflect the enacted DoD appropriation for FY 2013, nor sequestration; it reflected the President's requested amounts for FY 2013.

Quantity	Undistributed	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
Development	376	0	0	0	0	0	0	0	0	376
Production	0	17718	1794	1746	1746	1566	2352	2916	13722	43560
PB 2014 Total	376	17718	1794	1746	1746	1566	2352	2916	13722	43936
PB 2013 Total	376	17748	1794	1812	1806	2028	2862	3402	12108	43936
Delta	0	-30	0	-66	-60	-462	-510	-486	1614	0

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	--	--	--	--	--	--	43.3
2013	--	--	--	--	--	--	67.3
2014	--	--	--	--	--	--	69.3
2015	--	--	--	--	--	--	55.4
2016	--	--	--	--	--	--	27.4
2017	--	--	--	--	--	--	7.0
2018	--	--	--	--	--	--	6.9
2019	--	--	--	--	--	--	7.0
2020	--	--	--	--	--	--	7.1
2021	--	--	--	--	--	--	7.1
2022	--	--	--	--	--	--	7.2
Subtotal	376	--	--	--	--	--	881.2

Annual Funding BY\$

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
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	--	--	--	--	--	--	35.1
2013	--	--	--	--	--	--	53.3
2014	--	--	--	--	--	--	53.4
2015	--	--	--	--	--	--	41.9
2016	--	--	--	--	--	--	20.3
2017	--	--	--	--	--	--	5.1
2018	--	--	--	--	--	--	4.9
2019	--	--	--	--	--	--	4.9
2020	--	--	--	--	--	--	4.9
2021	--	--	--	--	--	--	4.8
2022	--	--	--	--	--	--	4.8
Subtotal	376	--	--	--	--	--	771.9

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	2964	332.8	--	--	332.8	0.4	333.2
2013	1794	238.8	--	--	238.8	0.4	239.2
2014	1746	233.8	--	3.0	236.8	0.4	237.2
2015	1746	246.4	--	3.2	249.6	0.4	250.0
2016	1566	250.0	--	4.6	254.6	2.3	256.9
2017	2352	333.5	--	--	333.5	0.5	334.0
2018	2916	398.7	--	--	398.7	0.5	399.2
2019	3174	428.8	--	--	428.8	0.5	429.3
2020	3258	439.0	--	--	439.0	0.5	439.5
2021	3336	449.5	--	--	449.5	0.5	450.0
2022	3396	460.2	--	--	460.2	0.5	460.7
2023	558	134.2	--	--	134.2	0.5	134.7
2024	--	--	37.5	--	37.5	0.5	38.0
2025	--	--	31.2	--	31.2	0.5	31.7
Subtotal	43560	5641.7	68.7	66.7	5777.1	35.6	5812.7

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
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	--	17.9	225.8	0.9	226.7
2009	2646	253.6	--	8.6	262.2	0.3	262.5
2010	3228	286.6	--	--	286.6	0.3	286.9
2011	2442	215.8	--	--	215.8	0.3	216.1
2012	2964	266.7	--	--	266.7	0.3	267.0
2013	1794	185.8	--	--	185.8	0.3	186.1
2014	1746	179.4	--	2.3	181.7	0.3	182.0
2015	1746	185.5	--	2.5	188.0	0.3	188.3
2016	1566	184.7	--	3.4	188.1	1.7	189.8
2017	2352	241.9	--	--	241.9	0.3	242.2
2018	2916	283.7	--	--	283.7	0.4	284.1
2019	3174	299.5	--	--	299.5	0.3	299.8
2020	3258	300.9	--	--	300.9	0.3	301.2
2021	3336	302.3	--	--	302.3	0.4	302.7
2022	3396	303.8	--	--	303.8	0.3	304.1
2023	558	86.9	--	--	86.9	0.4	87.3
2024	--	--	23.9	--	23.9	0.3	24.2
2025	--	--	19.5	--	19.5	0.3	19.8
Subtotal	43560	4284.7	43.4	58.4	4386.5	30.6	4417.1

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	3/24/2003	2/19/2012
Approved Quantity	13998	4943
Reference	ADM	ADM
Start Year	2003	2003
End Year	2005	2015

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the summation of 1,961 GMLRS DPICM Rockets plus 2,484 GMLRS Unitary Rockets, and 498 GMLRS AW Rockets.

The GMLRS DPICM Milestone C Acquisition Decision Memorandum (ADM), approved on March 24, 2003, authorized LRIP quantity not to exceed 13,998 rockets. This quantity was based on the Army Acquisition Objective (AAO) of 140,004 rockets. The actual GMLRS DPICM LRIP quantity was 1,961 rockets.

The GMLRS Unitary Milestone C ADM, signed May 2, 2007, authorized the LRIP quantity not to exceed 3,480 rockets based on the total expected Procurement quantity of 34,848. The actual GMLRS LRIP quantity was 2,484 rockets.

The AW Milestone B ADM was signed on February 19, 2012. The LRIP approved quantity of 498 rockets does not exceed 10% of the total planned buy for AW of 6,240 rockets.

The Current Total LRIP reported in the December 31, 2011 SAR was 17,976. This value was the summation of 13,998 GMLRS DPICM, 3,480 GMLRS Unitary, and 480 GMLRS AW. This quantity has been adjusted to 4,943, as explained above, to reflect actual LRIP quantities of GMLRS' three discreet variants (DPICM, Unitary, and AW).

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Memo
Singapore	3/26/2012	72	10.5	Unitary rockets.
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 (US) production line.

The United Kingdom (UK), Germany, France, and Italy are Cooperative Partners and are not FMS customers. The UK has procured 2,844 rockets, of which over 850+ have been successfully fired in a combat environment to support United States (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 has procured 66 rockets under GMLRS FRP VII contract.

Nuclear Cost

None

Unit Cost**Unit Cost Report**

	BY2003 \$M	BY2003 \$M	
Unit Cost	Current UCR Baseline (FEB 2012 APB)	Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	5100.3	5189.0	
Quantity	43936	43936	
Unit Cost	0.116	0.118	+1.72
Average Procurement Unit Cost (APUC)			
Cost	4321.2	4417.1	
Quantity	43560	43560	
Unit Cost	0.099	0.101	+2.02

	BY2003 \$M	BY2003 \$M	
Unit Cost	Revised Original UCR Baseline (JUN 2007 APB)	Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	4578.4	5189.0	
Quantity	43795	43936	
Unit Cost	0.105	0.118	+12.38
Average Procurement Unit Cost (APUC)			
Cost	3966.7	4417.1	
Quantity	43560	43560	
Unit Cost	0.091	0.101	+10.99

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:

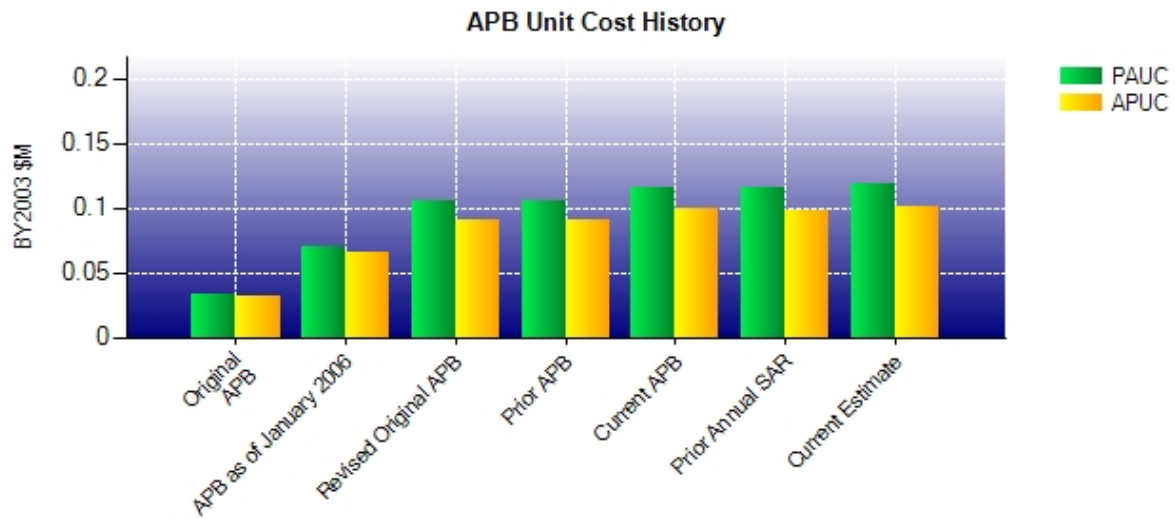
DPICM APUC (\$.133M [BY 03\$]; Qty = 2,472)
 UNITARY APUC (\$.098M [BY 03\$]; Qty = 34,848)
 AW APUC (\$.106M [BY 03\$]; Qty = 6,240)

DPICM PAUC (\$.189M [BY 03\$]; Qty = 2,565)
 UNITARY PAUC (\$.108M [BY 03\$]; Qty = 34,990)

AW PAUC (\$.136M [BY 03\$]; Qty = 6,381)

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
Original APB	MAR 1998	0.034	0.032	0.039	0.037
APB as of January 2006	MAY 2003	0.070	0.066	0.084	0.081
Revised Original APB	JUN 2007	0.105	0.091	0.133	0.119
Prior APB	JUN 2007	0.105	0.091	0.133	0.119
Current APB	FEB 2012	0.116	0.099	0.146	0.127
Prior Annual SAR	DEC 2011	0.115	0.098	0.146	0.127
Current Estimate	DEC 2012	0.118	0.101	0.152	0.133

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	0.014	-0.012	0.032	0.000	0.034	0.000	0.000	0.068	0.152

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	0.014	-0.025	0.032	0.000	0.031	0.000	0.000	0.052	0.133

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	6693.9
Total Quantity	N/A	43182	140239	43936
Prog. Acq. Unit Cost (PAUC)	N/A	0.039	0.084	0.152

The Milestone C and Initial Operational Capability reported above reflect the DPICM variant. Milestone C for the Unitary variant was approved May 2007. Milestone B for the AW variant was approved February 2012.

Cost Variance

Summary Then Year \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	500.5	11348.4	--	11848.9
Previous Changes				
Economic	+8.9	+568.4	--	+577.3
Quantity	+196.0	-8922.7	--	-8726.7
Schedule	+8.7	+1384.7	--	+1393.4
Engineering	--	+10.8	--	+10.8
Estimating	+169.2	+1127.8	--	+1297.0
Other	--	--	--	--
Support	--	+10.8	--	+10.8
Subtotal	+382.8	-5820.2	--	-5437.4
Current Changes				
Economic	+3.7	+44.1	--	+47.8
Quantity	--	--	--	--
Schedule	--	+26.9	--	+26.9
Engineering	--	--	--	--
Estimating	-5.8	+212.6	--	+206.8
Other	--	--	--	--
Support	--	+0.9	--	+0.9
Subtotal	-2.1	+284.5	--	+282.4
Total Changes	+380.7	-5535.7	--	-5155.0
CE - Cost Variance	881.2	5812.7	--	6693.9
CE - Cost & Funding	881.2	5812.7	--	6693.9

Summary Base Year 2003 \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	485.4	9294.8	--	9780.2
Previous Changes				
Economic	--	--	--	--
Quantity	+159.0	-5929.7	--	-5770.7
Schedule	+8.2	+241.7	--	+249.9
Engineering	--	+8.5	--	+8.5
Estimating	+124.0	+643.2	--	+767.2
Other	--	--	--	--
Support	--	+9.6	--	+9.6
Subtotal	+291.2	-5026.7	--	-4735.5
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-4.7	+148.7	--	+144.0
Other	--	--	--	--
Support	--	+0.3	--	+0.3
Subtotal	-4.7	+149.0	--	+144.3
Total Changes	+286.5	-4877.7	--	-4591.2
CE - Cost Variance	771.9	4417.1	--	5189.0
CE - Cost & Funding	771.9	4417.1	--	5189.0

Previous Estimate: December 2011

RDT&E	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	+3.7
Revised estimate for obsolescence due to Army budget changes. (Estimating)	-4.3	-5.3
Adjustment for current and prior escalation. (Estimating)	-0.4	-0.5
RDT&E Subtotal	-4.7	-2.1

Procurement	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	+44.1
Stretch-out of procurement buy profile due to budget and cost changes from FY 2012 - FY 2023. (Schedule)	0.0	+26.9
Adjustment for current and prior escalation. (Estimating)	-4.0	-5.1
Additional tooling for Alternative Warhead (AW). (Estimating)	+2.3	+3.1
Revised estimate for Rocket Motor. (Estimating)	+3.8	+5.2
Added AW Depot Maintenance and Plant Equipment. (Estimating)	+0.2	+0.3
Revised estimate for Download/Demate. (Estimating)	+4.5	+5.9
Revised production cost for Improved Rocket Motor. (Estimating)	+101.8	+141.5
Corrected Rate Factor on Electronic Safe Arm Fuze Work Breakdown Structure. (Estimating)	+2.2	+3.3
Revised learning curve assumptions for the AW. (Estimating)	+3.0	+4.6
Revised estimate to System Test and Evaluation for one additional year of production. (Estimating)	+2.9	+4.6
Revised estimate to Systems Engineering Program Management for level of effort and one additional year of production. (Estimating)	+23.0	+35.4
Revised estimate to Industrial Engineering Services for level of effort and one additional year of production. (Estimating)	+9.0	+13.8
Adjustment for current and prior escalation. (Support)	-0.1	0.0
Increase in Other Support due to updated flight test cost. (Support)	+0.1	+0.5
Increase in Initial Spares due to added AW depot spares. (Support)	+0.3	+0.4
Procurement Subtotal	+149.0	+284.5

Contracts

Appropriation: Procurement

Contract Name	GMLRS FRP I
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	175.2	N/A	1772	175.2	175.2

Cost And Schedule Variance Explanations

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

General Contract Variance Explanation

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 \$0.530M.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the fact that the initial contract price target and current contract price target experienced 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 contract is more than 90% complete; therefore, this is the final report for this contract.

Appropriation: Procurement

Contract Name	GMLRS FRP II
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	252.8	N/A	2298	252.8	252.8

Cost And Schedule Variance Explanations

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

General Contract Variance Explanation

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 \$2.939M.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the fact that the 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 contract is more than 90% complete; therefore, this is the final report for this contract.

Appropriation: Procurement

Contract Name	GMLRS FRP III
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	435.8	N/A	4268	435.8	435.8

Cost And Schedule Variance Explanations

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

General Contract Variance Explanation

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 \$12.837M.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the fact that the 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 contract is more than 90% complete; therefore, this is the final report for this contract.

Appropriation: Procurement

Contract Name	GMLRS FRP IV
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.

General Contract Variance Explanation

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 \$11.347M.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the fact that the 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 contract is more than 90% complete; therefore, this is the final report for this contract.

Appropriation: Procurement

Contract Name	GMLRS FRP V
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	464.7	N/A	4566	464.7	464.7

Cost And Schedule Variance Explanations

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

General Contract Variance Explanation

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 \$17.673M.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the fact that the 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.

Appropriation: Procurement

Contract Name	GMLRS FRP VI
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	483.7	N/A	8764	483.7	483.7

Cost And Schedule Variance Explanations

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

General Contract Variance Explanation

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 \$9.599M.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the fact that the 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.

Appropriation: Procurement

Contract Name	GMLRS FRP VII
Contractor	LMMFC-D
Contractor Location	Grand Prairie, TX 75051-0000
Contract Number, Type	W31P4Q-12-C-0151, FFP/CPFF
Award Date	June 29, 2012
Definitization Date	June 29, 2012

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
353.2	N/A	6552	547.7	N/A	11028	547.7	547.7

Cost And Schedule Variance Explanations

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

General Contract Variance Explanation

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 \$9.193M.

Contract Comments

This is the first time this contract is being reported.

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the fact that the 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.

FRP VIII is an option modification to FRP VII, which was awarded December 2012.

Appropriation: RDT&E

Contract Name	AW EMD
Contractor	LMMFC-D
Contractor Location	Grand Prairie, TX 75051-0000
Contract Number, Type	W31P4Q-12-C-0121, FFP
Award Date	March 30, 2012
Definitization Date	March 30, 2012

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
25.0	N/A	N/A	48.0	N/A	N/A	89.0	89.0

Cost And Schedule Variance Explanations

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

Contract Comments

This is the first time this contract is being reported.

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the fact that the 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.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	376	235	376	62.50%
Production	14046	14046	43560	32.25%
Total Program Quantities Delivered	14422	14281	43936	32.50%

Expenditures and Appropriations (TY \$M)			
Total Acquisition Cost	6693.9	Years Appropriated	16
Expenditures To Date	2415.9	Percent Years Appropriated	57.14%
Percent Expended	36.09%	Appropriated to Date	3038.3
Total Funding Years	28	Percent Appropriated	45.39%

The above data is current as of 4/9/2013.

Operating and Support Cost

GMLRS/GMLRS AW

Assumptions and Ground Rules

Cost Estimate Reference:

Alternative Warhead Milestone B Army Cost Position (Cost Review Board, December 2011).

Sustainment Strategy:

The Sustainment Strategy is two level maintenance - field and sustainment. An organic depot capability was established for GMLRS DPICM and Unitary variants in 2nd quarter of FY 2009; and this capability will be upgraded to incorporate GMLRS AW in 1st quarter of FY 2016.

The Unitized O&S Costs include all variants (DPICM, Unitary, and AW). The rocket pod refers to the Rocket Pod Container (RPC) that consists of six guided rockets with an expected service life of 10 years and procurement of 7,260 rocket pods.

Antecedent Information:

None.

Unitized O&S Costs BY2003 \$K		
Cost Element	GMLRS/GMLRS AW Avg Annual Cost per Rocket Pod	No GMLRS Antecedent (Antecedent) N/A
Unit-Level Manpower	0.000	0.000
Unit Operations	0.000	0.000
Maintenance	1.019	0.000
Sustaining Support	0.978	0.000
Continuing System Improvements	0.193	0.000
Indirect Support	0.000	0.000
Other	0.000	0.000
Total	2.190	--

Unitized Cost Comments:

The Cost Element, Sustaining Support, includes Missile Stockpile Reliability Certification, Base Operations, Second Destination Transportation, System Engineering Program Management (SEPM), and training. The Continuing System Improvements consists of software maintenance.

	Total O&S Cost \$M			
	Current Production APB Objective/Threshold		Current Estimate	
	GMLRS/GMLRS AW		GMLRS/GMLRS AW	No GMLRS Antecedent (Antecedent)
Base Year	169.5	186.5	158.2	N/A
Then Year	252.9	N/A	249.6	N/A

Total O&S Costs Comments:

For the 2012 Weapons System Review, the reference cost estimate was updated changing the buy quantities impacting on hand inventory, updating the repair quantities to reflect historical failures and returns, and updating the bulk requirements per the actual historical cost of spare parts. This update resulted in a reduction in overall cost.

Disposal Costs

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).