

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

## BUDGET ACTIVITY

### 7 - Operational system development

## PE NUMBER AND TITLE

### 0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM

COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	105395	113652	74506	19278	13606	8840	2421	0	779524
090 MLRS HIMARS	6881	10275	16379	4491	8388	2047	0	0	238597
093 MLRS JOINT TECH ARCHITECTURE	8500	1756	3313	4737	4142	4645	0	0	49184
784 GUIDED MLRS	90014	101621	54814	10050	971	0	0	0	491743
787 HIMARS P3I	0	0	0	0	105	2148	2421	0	0

**A. Mission Description and Budget Item Justification:** The High Mobility Artillery Rocket System (HIMARS), M270A1, Guided Multiple Launch Rocket System (GMLRS) and GMLRS Unitary provide precision strike capability.

HIMARS, is a C-130 transportable launcher mounted on a Family of Medium Tactical Vehicles (FMTV) chassis. HIMARS is capable of firing either 6 MLRS Family of Munitions (MFOM) rockets or one Army Tactical Missile (ATACMS) Family of Munitions (AFOM) missile, including precision munitions, to a range of 300KM.

Compliance with the Joint Technical Architecture (JTA) supports HIMARS and M270A1 MLRS Launcher programs, and is required by both Department of the Army and Office of the Secretary of Defense. The M270A1 upgraded MLRS launcher is mounted on a Bradley Fighting Vehicle chassis, and is capable of firing the MFOM and the AFOM, including precision munitions, to a range of 300KM.

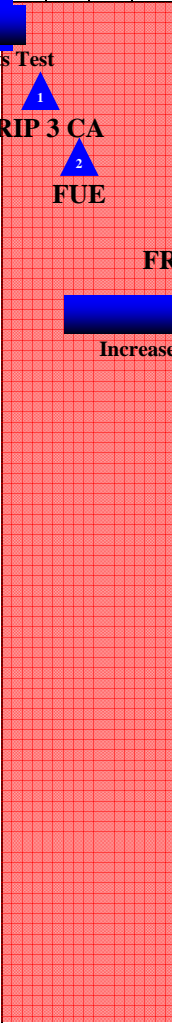







GMLRS is a precision munition providing increased range to 70KM, and Global Positioning System (GPS) accuracy. Fired from M270A1 and HIMARS launchers, GMLRS comes in two variants: Dual Purpose Improved Conventional Munitions (DPICM) contains 414 submunitions, for attacking area targets with improved accuracy and significantly reduced hazardous duds; and GMLRS Unitary has a 200lb High Explosive (HE) warhead for attacking point targets with reduced collateral damage.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)			February 2006
BUDGET ACTIVITY <b>7 - Operational system development</b>		PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>	
<b><u>B. Program Change Summary</u></b>	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2006)	105444	114297	79657
Current BES/President's Budget (FY 2007)	105395	113652	74506
Total Adjustments	-49	-645	-5151
Congressional Program Reductions		-499	
Congressional Rescissions		-1146	
Congressional Increases		1000	
Reprogrammings	-49		
SBIR/STTR Transfer			
Adjustments to Budget Years			-5151
FY 2007 - Realigned (\$5151K) to higher priority requirements.			

<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R2a Exhibit)</b>								<b>February 2006</b>	
<b>BUDGET ACTIVITY</b> <b>7 - Operational system development</b>				<b>PE NUMBER AND TITLE</b> <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>				<b>PROJECT</b> <b>090</b>	
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
090 MLRS HIMARS	6881	10275	16379	4491	8388	2047	0	0	238597
<b>A. Mission Description and Budget Item Justification:</b> The High Mobility Artillery Rocket System (HIMARS) fully supports a more deployable, affordable, and lethal Joint Expeditionary Force. It is a light weight, deployable system which provides long range precision strike capability in both early and forced entry scenarios. Mounted on a medium tactical wheeled vehicle chassis, HIMARS is transportable in a C-130 aircraft, and is self-loading and self-locating using Global Positioning System (GPS) technology. It fires the full Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM) and Army TACMS (ATACMS) Family of Munitions (AFOM). Additionally a HIMARS battery requires significantly reduced airlift resources that are required to transport a battery of the tracked M270/M270A1 MLRS. HIMARS, as part of the Fires Brigade, will provide fires that shape, shield and isolate the battle space.									
<b><u>Accomplishments/Planned Program</u></b>						<b><u>FY 2005</u></b>	<b><u>FY 2006</u></b>	<b><u>FY 2007</u></b>	
Continue system design and Production Qualification Testing (PQT), conduct Functional Configuration Audit (FCA), and develop Integrated Logistics Products (ILP); integrate and test Horizontal Technology Insertion (HTI) upgrades including Increased Crew Protection, Enhanced Command and Control, Improved Initialization and Long Range Communication. Perform technical assessments, concept studies, risk reduction and prepare milestone documentation.						6881	10275	16379	
Total						6881	10275	16379	
<b><u>B. Other Program Funding Summary</u></b>									
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
HIMARS Launcher (C02901)	158380	165228	226884	236165	248369	260478	263593	1207433	3020814
HIMARS Modifications (C67501)	3043	7896	9374	10541	11849	12038	9397	90560	156684
HIMARS Modifications: Initial Spares (CA0289)	0	441	1317	1261	1064	1855	1920	31600	39508
Initial Spares, HIMARS (CA0288)	4013	5375	7941	11541	12037	12574	8713	9029	78662
<b>C. Acquisition Strategy</b> The HIMARS program is currently in Full Rate Production (FRP) and awarded (FRP-1) contract December 2005. HIMARS follow-on Horizontal Technology Insertion (HTI) efforts include the Increased Crew Protection, Enhanced Command and Control and Long Range Communication.									

ARMY RDT&E COST ANALYSIS (R3)										February 2006		
BUDGET ACTIVITY				PE NUMBER AND TITLE							PROJECT	
7 - Operational system development				0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM							090	
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Risk Reduction/ Maturation Contract	SS/CPIF & CPAF	LMMFC, Texas	112724	0		0		0		0	112724	0
Path through Operational Test	SS/CPFF	LMMFC, Texas	17489	0		0		0		0	17489	0
Work Directives/ Chassis and Cab	N/A	TACOM (S&S)	4850	425	1-3Q	1057	1-2Q	882		1840	8950	0
Battle Command	SS/CPFF	CECOM, STRICOM, UA Networks, LMMFC, Texas	4040	0	2-3Q	1663	1-3Q	1893		7437	15033	0
Government Support	N/A	AMCOM/ GSA, RSA & TSM	17749	1108	1-4Q	1112	1-4Q	1584		1018	21237	0
Increased Crew Protection	SS/CPFF	LMMFC, Texas	0	2335	2-4Q	3404	1-4Q	5963		2047	12825	0
Subtotal:			156852	3868		7236		10322		12342	188258	0
Remarks: TACOM - Tank Automotive & Armaments Command; AMCOM - Aviation & Missile Command RSA - Redstone Arsenal Alabama; STRICOM - Simulation Training and Instrument Command S&S - Stewart & Stevenson; GSA - General Services Administration LMMFC - Lockheed Martin Missile and Fire Control TSM - TRADOC System Manager; TBD - To Be Determined; N/A - Not Applicable CECOM - US Army Communication - Electronics Command SS - Sole Source; CPIF - Cost Plus Incentive Fee; CPAF - Cost Plus Award Fee CPFF - Cost Plus Fixed Fee; UA - Unit of Action												
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C /CPFF	Camber Research/S3/TMI, Alabama	1836	176	1-4Q	231	1-4Q	232		718	2894	0
Subtotal:			1836	176		231		232		718	2894	0
Remarks: S3 - Systems Studies Simulation, Inc. TMI - Tec Masters Inc												

ARMY RDT&E COST ANALYSIS (R3)									February 2006			
BUDGET ACTIVITY <b>7 - Operational system development</b>			PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>							PROJECT <b>090</b>		
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Test Support	N/A	Fort Hood,ATEC,APG MD,WSMR NM & RTTC RSA	33569	2503	1-4Q	2491	1-4Q	5501		1745	38766	0
Subtotal:			33569	2503		2491		5501		1745	38766	0
Remarks: APG MD - Aberdeen Proving Ground, Maryland WSMR NM - White Sands Missile Range, New Mexico RTTC RSA - Redstone Technical Test Center ATEC - US Army Test and Evaluation Command												
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
In-House Support	N/A	PFRMS Project Office, Redstone Arsenal, AL	7497	334	1-4Q	317	1-4Q	324		1009	8679	0
Subtotal:			7497	334		317		324		1009	8679	0
Remarks: PFRMS - Precision Fires Rocket and Missile Systems												
<b>Project Total Cost:</b>			<b>199754</b>	<b>6881</b>		<b>10275</b>		<b>16379</b>		<b>15814</b>	<b>238597</b>	<b>0</b>

Schedule Profile (R4 Exhibit)																	February 2006																			
BUDGET ACTIVITY					PE NUMBER AND TITLE																	PROJECT														
7 - Operational system development					0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM																	090														
Event Name					FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11							
					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				
IOT Flight Test									 IOT Flts Test				 LRIP 3 CA				 FUE				 FRP 1 CA				 Increased Crew Protection & LFT&E				 Software Blk 2/5				 Enhanced Cmd and Ctrl Dev/Test			
(1) LRIP 3 CA																																				
(2) FUE																																				
(3) Full Rate Production (FRP) Contract Award (CA) 1																																				
Increased Crew Protection Development and Live Fire Test and Evaluation (LFT&E)																																				
Central Technical Support Facility Certification																																				
Enhanced Command and Control development and testing																																				

Schedule Detail (R4a Exhibit)						February 2006	
BUDGET ACTIVITY <b>7 - Operational system development</b>			PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>			PROJECT <b>090</b>	
<u>Schedule Detail</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
IOT Flight Test	1Q						
LRIP 3 Contract Award	1Q						
FUE	2Q						
Full Rate Production (FRP) Contract Award (CA) 1		1Q					
Increased Crew Protection Development and Live Fire Test and Evaluation (LFT&E)	2-4Q	1-4Q	1-4Q				
Central Technical Support Facility Certification			1-4Q	1-4Q	1-4Q	1-2Q	
Enhanced Command and Control			1-4Q	1-4Q	1-4Q	1-4Q	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)								February 2006		
BUDGET ACTIVITY 7 - Operational system development			PE NUMBER AND TITLE 0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM					PROJECT 093		
COST (In Thousands)		FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
093	MLRS JOINT TECH ARCHITECTURE	8500	1756	3313	4737	4142	4645	0	0	49184
<b>A. Mission Description and Budget Item Justification:</b> Compliance with the Joint Technical Architecture (JTA) supports the High Mobility Artillery Rocket System (HIMARS) and M270A1 Multiple Launch Rocket System (MLRS) launcher programs, and is required by both the Department of the Army and Office of the Secretary of Defense (OSD). As required by JTA, Digital Communications (DCOMMS), which incorporates Joint Variable Message Format (JVMF), has been implemented into both the HIMARS and M270A1 launchers. Additionally, JTA provides for the development and integration of Selective Availability/Anti-Spoofing Module (SAASM) and network interoperability, which includes Sensor to Effects (STE) for both the HIMARS and M270A1 launchers. This effort reduces the total number of Executive Processor Circuit Card Assemblies used in the launcher which increases reliability while decreasing cost and mitigating future obsolescence issues. Conduct assessments on long range communications and situational awareness including implementation and prototyping.										
<b><u>Accomplishments/Planned Program</u></b>							<b><u>FY 2005</u></b>	<b><u>FY 2006</u></b>	<b><u>FY 2007</u></b>	
Developed, integrate, and test SAASM and JVMF(DCOMMS).							152	142	0	
Perform developmental testing (software blocking).							0	382	0	
Reduction in Total Ownership Cost/Card Consolidation Development.							6884	356	2029	
Develop anti-jamming hardware (analysis).							498	468	508	
Perform technical assessments, concept studies, and risk reduction.							245	170	487	
Develop, integrate and test to support network interoperability.							721	238	289	
Total							8500	1756	3313	
<b><u>B. Other Program Funding Summary</u></b>		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
MLRS Launcher (C65900)		21102	20514	0	0	0	0	0	0	3020923
MLRS Mods(C67500)		18882	14387	6913	5578	1886	3144	3149	27000	384235
MLRS Initial Spares (CA0257)		3650	0	0	0	0	0	0	0	198622
MLRS Mod Initial Spares (CA0265)		518	3328	521	1043	1048	1048	1049	9000	35407
HIMARS Launcher (C02901)		158380	165228	226884	236165	248369	260478	263593	1207433	3020814
HIMARS Modifications (C67501)		3043	7896	9374	10541	11849	12038	9397	90560	156684
HIMARS Initial Spares (CA0288)		4013	5375	7941	11541	12037	12574	8713	9029	78662
HIMARS Mod Initial Spares (CA0289)		0	441	1317	1261	1064	1855	1920	31600	39508

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)		February 2006
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
<b>7 - Operational system development</b>	<b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>	<b>093</b>
<p><b>C. Acquisition Strategy</b> The JTA-Army standards will be implemented for the M270A1 and HIMARS launchers. The JVMF is currently being developed in the Software Engineering Directorate and will be integrated into the launchers using a sole source contracting strategy with Lockheed Martin Missile and Fire Control-Dallas (LMMFC-D). This contracting strategy will also be used for the Card Consolidation, SAASM efforts, and STE. Testing of software blocking upgrades are currently scheduled every 18 months.</p>		

ARMY RDT&E COST ANALYSIS (R3)										February 2006		
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM						PROJECT 093		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Contract (Card Consolidation, and SAASM)	CPFF	LMMFC-D, Dallas, Texas	13695	7634	2Q	667	2Q	2103	2Q	7039	31138	0
Government Support	N/A	AMCOM/GSA, Redstone Arsenal, Alabama	5138	287	1-3Q	251	1-3Q	358	1-3Q	2199	8233	0
Subtotal:			18833	7921		918		2461		9238	39371	0
Remarks: SAASM - Selective Availablity/Anti-Spoofing Module CPFF - Cost Plus Fixed Fee LMMFC-D - Lockheed Martin Missile and Fire Control-Dallas AMCOM - Aviation and Missile Command GSA - General Services Administration												
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	Various		0	0		78	1-3Q	167	1-3Q	1096	1341	0
Subtotal:			0	0		78		167		1096	1341	0
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Test Support	N/A	CTSF, Ft. Hood, Texas	552	0		553	1-3Q	0		2249	3354	0
Test Support	N/A	AMCOM, Redstone Arsenal, Alabama	0	0		0		451	1-3Q	0	451	0
Test Support	N/A	WSMR, New Mexico	299	143	1-3Q	0		0		0	442	0
Subtotal:			851	143		553		451		2249	4247	0
Remarks: CTSF - Central Test Support Facility WSMR - White Sands Missile Range												

ARMY RDT&E COST ANALYSIS (R3)										February 2006		
BUDGET ACTIVITY <b>7 - Operational system development</b>				PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>							PROJECT <b>093</b>	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
In-House Support	N/A	PFRMS Proj Ofc, Redstone Arsenal, Alabama	2407	436	1-4Q	207	1-4Q	234	1-4Q	941	4225	0
Subtotal:			2407	436		207		234		941	4225	0
Remarks: PFRMS - Precision Fires Rocket and Missile Systems												
<b>Project Total Cost:</b>			<b>22091</b>	<b>8500</b>		<b>1756</b>		<b>3313</b>		<b>13524</b>	<b>49184</b>	<b>0</b>

Schedule Profile (R4 Exhibit)																	February 2006															
BUDGET ACTIVITY					PE NUMBER AND TITLE																	PROJECT										
7 - Operational system development					0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM																	093										
Event Name					FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11			
					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
Card Consolidation																																
Network Interoperability																																
SAASM-GPS Upgrades and Military Code Integration																																
DCOMMS, SAASM Black Key Capability Development/Integration																																
Software Blocking/Central Test Support Facility/OT Certification																																
Anti-iamming Hardware																																

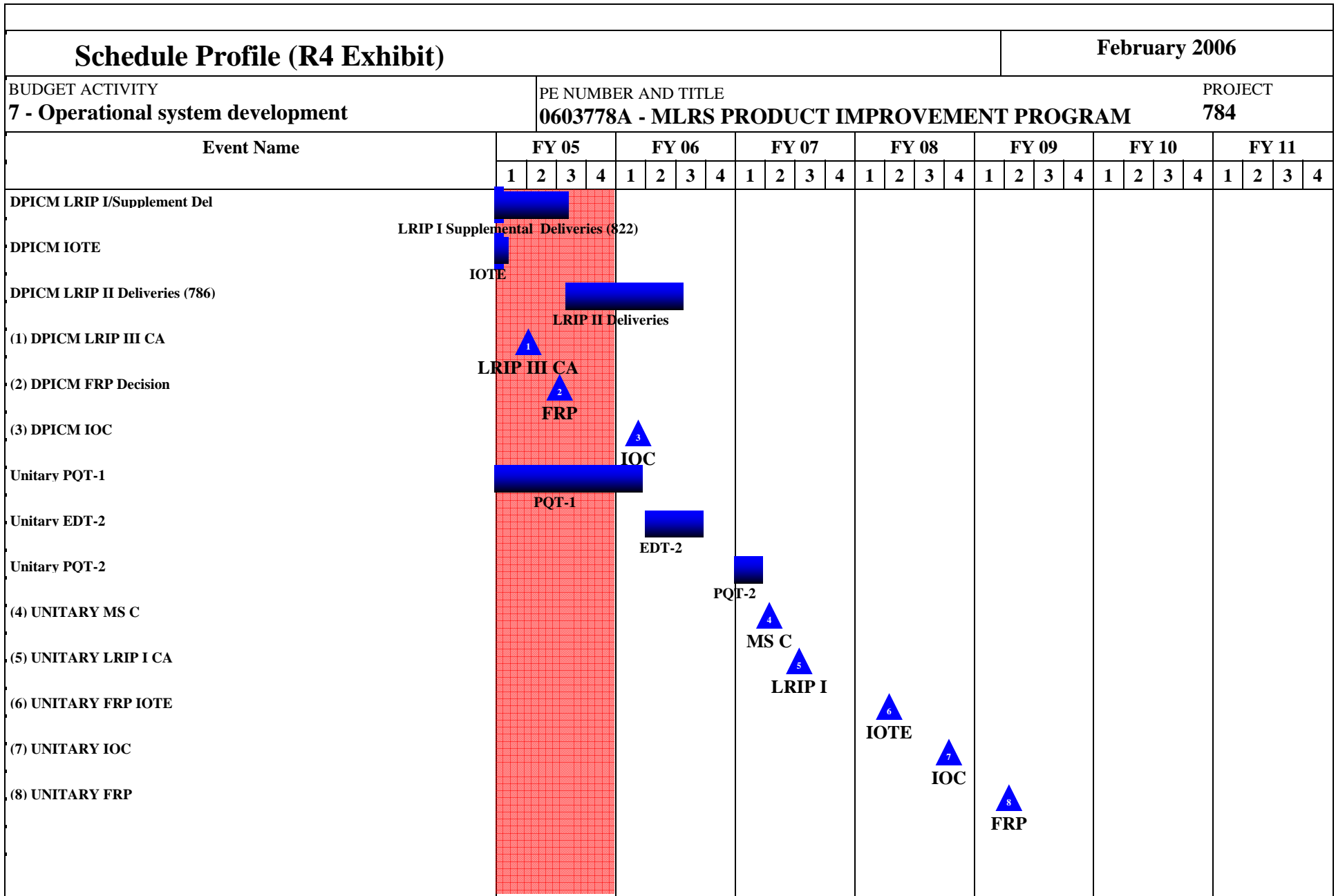
Schedule Detail (R4a Exhibit)					February 2006		
BUDGET ACTIVITY <b>7 - Operational system development</b>		PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>				PROJECT <b>093</b>	
<u><b>Schedule Detail</b></u>	<u><b>FY 2005</b></u>	<u><b>FY 2006</b></u>	<u><b>FY 2007</b></u>	<u><b>FY 2008</b></u>	<u><b>FY 2009</b></u>	<u><b>FY 2010</b></u>	<u><b>FY 2011</b></u>
Card Consolidation	1-4Q	1-4Q	1-4Q				
Network Interoperability	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
SAASM-GPS Upgrades and Military Code Integration				1-4Q	1-4Q	1-4Q	
DCOMMS, SAASM Black Key Capability Development/Integration	1-4Q	1-4Q					
Software Blocking /Central Test Support Facility/Operational Test Certification		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
Anti-jamming Hardware	1-4Q	1-4Q	1-4Q	1-4Q			

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BUDGET ACTIVITY <b>7 - Operational system development</b>				PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>				PROJECT <b>784</b>	
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
784 GUIDED MLRS	90014	101621	54814	10050	971	0	0	0	491743
<p><b>A. Mission Description and Budget Item Justification:</b> Guided Multiple Launch Rocket Systems (GMLRS) munitions are the Army's primary organic Joint Expeditionary, all-weather, all-terrain, 24/7, tactical range precision guided rockets employed by modular Fires Brigades supporting Brigade Combat Teams (BCT), Divisions, Corps, and Joint Special Operations Force (JSOF) combatant commanders. GMLRS are the primary munitions for units fielded with the High Mobility Artillery Rocket System (HIMARS) and MLRS M270A1 rocket and missile launcher platforms. GMLRS provides close, medium and long range pin point precision and massed fires to Destroy, Suppress and Shape threat forces and protect friendly forces against: cannon, mortar, rocket and missile artillery; light materiel and armor; personnel; command and control; and air defense surface targets. GMLRS is a major upgrade/replacement for the aging M26A1/A2 rocket inventory. GMLRS integrates a guidance and control package and a new rocket motor achieving greater range and precision accuracy requiring fewer rockets to defeat targets than current artillery rockets, thereby reducing the logistics burden. There are two variants of GMLRS—GMLRS with Dual Purpose Improved Conventional Munitions (DPICM) and GMLRS with a 200-pound class high explosive warhead (Unitary). The GMLRS DPICM is a five nation cooperative program among France, Germany, Italy, United Kingdom and the United States. The GMLRS Unitary is a modification to the GMLRS DPICM integrating a multi-mode fuze and high explosive insensitive munition (IM) warhead making it an all-weather, low collateral damage, precision rocket. This expands the MLRS target set into urban and complex environments and adds point targets. To meet a Central Command Urgent Need Statement, a quantity of 486 limited capability GMLRS Unitary rockets were accelerated and fielded in Iraq between June and December 2005. In missions in which it has been deployed, GMLRS Unitary has demonstrated both very high accuracy and low collateral damage. The Army has directed continued production of GMLRS Unitary to maintain an operational inventory of these precision, low collateral damage munitions. Continued GMLRS Unitary development efforts will qualify an IM rocket motor for all GMLRS production. Additional spiral development and technology insertions will provide operational flexibility, and capability against an expanded target set including enclosed structures and a reduced hazardous dud rate for the GMLRS DPICM. GMLRS is also a key component of the Marine Corps Future Fighting Effort.</p>									
<b><u>Accomplishments/Planned Program</u></b>						<b><u>FY 2005</u></b>	<b><u>FY 2006</u></b>	<b><u>FY 2007</u></b>	
Developed Advanced Field Artillery Tactical Data System (AFATDS) Interface						204	0	0	
Conducted system test and evaluation activities to include Initial Operational Test (IOT), Ground and Flight Test.						3813	0	0	
Perform technical assessments, concept studies, prepare milestone documentation and risk reduction						105	249	152	
Conduct Development and Engineering for Insensitive Munitions (IM) Program						2326	9096	2341	
Conduct Development Engineering; Design and Develop Alternate Warheads and Multi Mode Fuzes						26608	18049	5852	
Initiate Initial Common Hardware Buy for Test Activities for Unitary (123 test articles for Engineering Development Testing (EDT), Production Qualification Testing (PQT), Cold Region Testing, & Initial Operational Test & Evaluation (IOT&E))						5589	18293	10747	
Perform Anti-Jamming Analysis and System Engineering/Integration						3002	3939	4533	
Conduct EDT Flight Test, PQT Ground and Flight Tests, Test Analysis						33025	18187	5321	
Conduct Functional Configuration Audit, Final PDDP, and System Integration Test						8125	8622	3572	

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Perform Integration and Test of Alternative Warheads and Multi-Mode Fuzes					3111	3307	3482		
Conduct system test and evaluation activities					4106	21879	18814		
Total					90014	101621	54814		
<b><u>B. Other Program Funding Summary</u></b>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
Missile Procurement Army - GMLRS (C64400)	111290	123174	147795	295041	378757	528860	669100	10872800	13126817
<p><b><u>C. Acquisition Strategy</u></b> The Guided Multiple Launch Rocket System (GMLRS) Dual Purpose Improved Conventional Munitions (DPICM) is currently in Full Rate Production (FRP). The primary objective of the GMLRS DPICM System Development and Demonstration (SDD) was to develop a rocket with greater range and significantly enhanced accuracy with minimum impact on existing MLRS companion hardware and software. Other GMLRS development efforts include an improved mechanical fuze; a self-destruct fuze; desired new rocket motor capabilities related to insensitive munition compliance; design, evaluation, and test of alternative warhead technologies; and increased range.</p> <p>The GMLRS Unitary Acquisition Strategy is a streamlined product improvement program employing a spiral development approach. Initial configuration hardware will maximize commonality with GMLRS DPICM and incorporate a new warhead and multi-mode fuze (point detonation, airburst and delay). The European Cooperative Development Partners for GMLRS have expressed a desire to join the GMLRS Unitary development program during the Follow-On configuration effort that will include an insensitive munition rocket motor and other technology opportunities (e.g., warhead, payloads, trajectory shaping, guidance, Cost As an Independent Variable (CAIV) initiatives). In FY05, Congress encouraged the Army to accelerate the GMLRS Unitary program to field a quantity of not less than 450 rockets with limited capability no later than fourth quarter FY06. In December 2004, the Army received an urgent need statement from Central Command requesting limited capability GMLRS Unitary rockets by fourth quarter FY06. The first 72 limited capability GMLRS Unitary Rockets were fielded in theater during June 05.</p>									

ARMY RDT&E COST ANALYSIS (R3)										February 2006		
BUDGET ACTIVITY <b>7 - Operational system development</b>				PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>						PROJECT <b>784</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
SDD DPICM Contract	SS/CPAF	LMMFCS Dallas, TX	100909	96	1-2Q	0		0		0	101005	0
SDD Unitary Contract	SS/CPFF	LMMFCS Dallas, TX	58631	61129	1Q	43683	2Q	10355	1Q	1578	175376	0
Government Support	N/A	AMCOM/AMRDEC, RSA	32617	3931	1-4Q	3514	1-4Q	2540	1-4Q	0	42602	0
Subtotal:			192157	65156		47197		12895		1578	318983	0
Remarks: DPICM - Dual Purpose Improved Conventional Munitions; SS/CPAF - Sole Source/Cost Plus Award Fee; SS/CPFF - Sole Source/Cost Plus Fixed Fee; LMMFCS - Lockheed Martin Missile and Fire Control System; TX - Texas; AMCOM-Aviation & Missile Command; AMRDEC - U.S. Army Research, Development & Engineering Command; RSA - Redstone Arsenal, Alabama												
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/CPFF	Camber Research/S3/TMI, Alabama	6030	4154	1-3Q	4510	1-3Q	3513	1-3Q	229	18436	0
Subtotal:			6030	4154		4510		3513		229	18436	0
Remarks: C/CPFF-Cost/Cost Plus Fixed Fee S3-Systems Studies Simulation, Inc. TMI-Tec Masters, Inc. AMRDEC-U.S. Army Research, Development & Engineering Command												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Test Support	N/A	WSMR, NM	19818	14269	1-4Q	41544	1-4Q	33790	1-4Q	7742	117163	0
Subtotal:			19818	14269		41544		33790		7742	117163	0
Remarks: WSMR, NM - White Sands Missile Range, New Mexico												

ARMY RDT&E COST ANALYSIS (R3)										February 2006		
BUDGET ACTIVITY <b>7 - Operational system development</b>				PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>							PROJECT <b>784</b>	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
In-House Support	N/A	PFRMS Proj Ofc, RSA	16268	6435	1-4Q	8370	1-4Q	4616	1-4Q	1472	37161	0
Subtotal:			16268	6435		8370		4616		1472	37161	0
Remarks: PFRMS - Precision Fires Rocket and Missile Systems RSA - Redstone Arsenal, Alabama												
<b>Project Total Cost:</b>			<b>234273</b>	<b>90014</b>		<b>101621</b>		<b>54814</b>		<b>11021</b>	<b>491743</b>	<b>0</b>



Schedule Detail (R4a Exhibit)						February 2006	
BUDGET ACTIVITY <b>7 - Operational system development</b>			PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>			PROJECT <b>784</b>	
<u>Schedule Detail</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
DPICM IOTE	1Q						
DPICM LRIP III C A	2Q						
Unitary Configuration EDT, PQT Grnd and Flight Tests	2-3Q	3Q	1Q				
Unitary MS C			2Q				
Unitary LRIP I CA			3Q				
Unitary IOTE				2Q			
Unitary IOC				4Q			
Unitary FRP					2Q		

<b>Termination Liability Funding For Major Defense Acquisition Programs, RDT&amp;E Funding (R5)</b>					<b>February 2006</b>			
BUDGET ACTIVITY <b>7 - Operational system development</b>		PE NUMBER AND TITLE <b>0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM</b>				PROJECT <b>784</b>		
Funding in \$000								
<b>Program</b>		<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
Guided MLRS		3247	3348	3150				
<b>Total Termination Liability Funding:</b>		3247	3348	3150				
<b>Remarks:</b> In the event of termination, available funding within the contract will be utilized to pay termination costs.								