

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

BUDGET ACTIVITY

7 - Operational system development

PE NUMBER AND TITLE

0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM

COST (In Thousands)	FY 2004 Actual	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	8350	15444	114297	79657	23907	19815	13560	6357	0	52760
090 MLRS HIMARS	20411	10067	9424	16130	4423	8256	2014	0	0	99501
093 MLRS JOINT TECH ARCHITECTURE	8279	4793	1782	3263	9590	4077	4570	0	0	42777
784 GUIDED MLRS	54360	90584	103091	60264	9894	904	0	0	0	378482
787 HIMARS P3I	0	0	0	0	0	6578	6976	6357	0	0

A. Mission Description and Budget Item Justification: The High Mobility Artillery Rocket System (HIMARS), M27A1, 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 M27A1 MLRS Launcher programs, and is required by both Department of the Army and Office of the Secretary of Defense. The M27A1 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. The M27A1 is capable of firing either 12 MFOM rockets of 2 AFOM missiles from a single launcher.

GMLRS is a precision munition providing increased range to 700KM, and Global Positioning System (GPS) accuracy. Fired from M27A1 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.

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<u>B. Program Change Summary</u>	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2005)	97422	127347	54718
Current Budget (FY 2006/2007 PB)	105444	114297	79657
Total Adjustments	8022	-13050	24939
Net of Program/Database Changes			
Congressional Program Reductions	-1739		
Congressional Rescissions			
Congressional Increases	12750		
Reprogrammings			
SBIR/STTR Transfer	-2989		
Adjustments to Budget Years		-13050	24939

Program Change Explanations:

FY06 - Funds realigned (\$13050K) to higher priority requirements.

FY 07 Increase of \$24939 will fund Improved Crew Protection on HIMARS; perform insensitive munitions upgrade on GMLRS and Selective Availability/Anti Spoofing Module and unit of action networks interoperability for launcher programs through the Joint Technical Architecture (JTA) program.

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COST (In Thousands)	FY 2004 Actual	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
09 MLRS HIMARS	20411	10067	9424	16130	4423	8256	2014	0	0	99501

A. Mission Description and Budget Item Justification: The High Mobility Artillery Rocket System (HIMARS) fully supports a more deployable, affordable, and lethal Joint Expeditionary Force. It provides Multiple Launch Rocket System (MLRS) capability through a lighter weight, more deployable system in both early and forced entry scenarios. Mounted on a medium tactical wheeled vehicle chassis, HIMARS is transportable on a C-130 aircraft, is self-locating and self-loading. It provides full MLRS Family of Munitions (MFOM) and Army TACMS (ATACMS) Family of Munitions (AFOM) capability yet requires significantly reduced airlift resources to transport a HIMARS battery compared to the heavy M27/M27A1 MLRS tracked battery. HIMARS, as part of the Fires Brigade, will provide fires that shape, shield and isolate the battle space.

HIMARS meets Army's modernization goals for the 21st century and was selected by Army strategic planners as one of the Army's core systems of the Unit of Employment (UE).

Accomplishments/Planned Program	FY 2004	FY 2005	FY 2006	FY 2007
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 and Joint Tactical Radio. Perform technical assessments, concept studies, risk reduction and prepare milestone documentation.	10902	10067	9424	16130
Completed Production Qualification Test (PQT); conducted Extended System Integration Test (ESIT), C-130 Demonstrations, Automotive Endurance testing, and Command, Control, Communications, Computers and Intelligence (C4I) evaluations. Integrate Advanced Field Artillery Tactical Data System (AFATDS); conducted ground and completed Joint HIMARS/Guided MLRS Initial Operational Test and Evaluation (Ground and Flight phases).	9509	0	0	0
Totals	20411	10067	9424	16130

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B. Other Program Funding Summary	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
HIMARS Launcher (C02901)	121747	168596	174929	226887	235323	247398	258865	261380	2366883	4195629
HIMARS Modifications (C67501)	1986	472	8001	9238	10387	11675	11855	9246	90560	153420
HIMARS Modifications: Initial Spares (CA0289)	69	71	681	1285	1233	1040	1813	1862	31600	39654
Initial Spares, HIMARS (CA0288)	6571	4016	8363	7742	11278	11762	12289	8447	127808	198276

C. Acquisition Strategy: The HIMARS program is currently in Low Rate Initial Production (LRIP) and awarded the last contract (LRIP-3) in December 2004. The Full Rate Production (FRP) Decision Review will be conducted in 3QFY05 and the program will award FRP-1 in FY06. HIMARS follow-on Horizontal Technology Insertion (HTI) efforts include the Increased Crew Protection and Joint Tactical Radio Systems (JTRS) integration.

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM					PROJECT 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
a . Risk Reduction/ Maturation Contract	SS/CPIF & CPAF	LMMFC, Texas	112724	0		0		0		0	112724	0
b . Path through Operational Test	SS/CPFF	LMMFC, Texas	19607	0		0		0		0	19607	0
c . Work Directives/ Chassis and Cab	N/A	TACOM (S&S)	4701	6455	1-2Q	1057	1-2Q	882		1840	14935	0
d . Battle Command	SS/CPFF	CECOM, STRICOM, UA Networks, LMMFC, Texas	4040	0	2-3Q	1663	1-3Q	1893		7437	15033	0
e . Government Support	N/A	AMCOM/ GSA, RSA, TSM & PM	16425	1216	1-4Q	1112	1-4Q	1584		1018	21355	0
f . Increased Crew Protection	SS/CPFF	LMMFC, Texas	0	521	1-4Q	2028	1-4Q	2199		926	5674	0
Subtotal:			157497	8192		5860		6558		11221	189328	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 Network JTRS - Joint Tactical Radio Systems												

ARMY RDT&E COST ANALYSIS(R3)

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II. Support Cost	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
a . Support Contract	C /CPFF	Camber Research/S3/TMI, Alabama	1537	522	1-4Q	551	1-4Q	581		718	3909	0
Subtotal:			1537	522		551		581		718	3909	0

Remarks: S3 - Systems Studies Simulation, Inc.
TMI - Tec Masters Inc

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
a . Test Support	N/A	Fort Hood,ATEC,APG MD,WSMR NM & RTTC RSA	26526	1076	1-4Q	2696	1-4Q	8667		1745	40710	0
Subtotal:			26526	1076		2696		8667		1745	40710	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

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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
a . In-House Support	N/A	PFRMS Project Office, Redstone Arsenal, AL	6695	277	1-4Q	317	1-4Q	324		1009	8622	0
Subtotal:			6695	277		317		324		1009	8622	0
Remarks: PFRMS - Precision Fires Rocket and Missile Systems												
Project Total Cost:			192255	10067		9424		16130		14693	242569	0

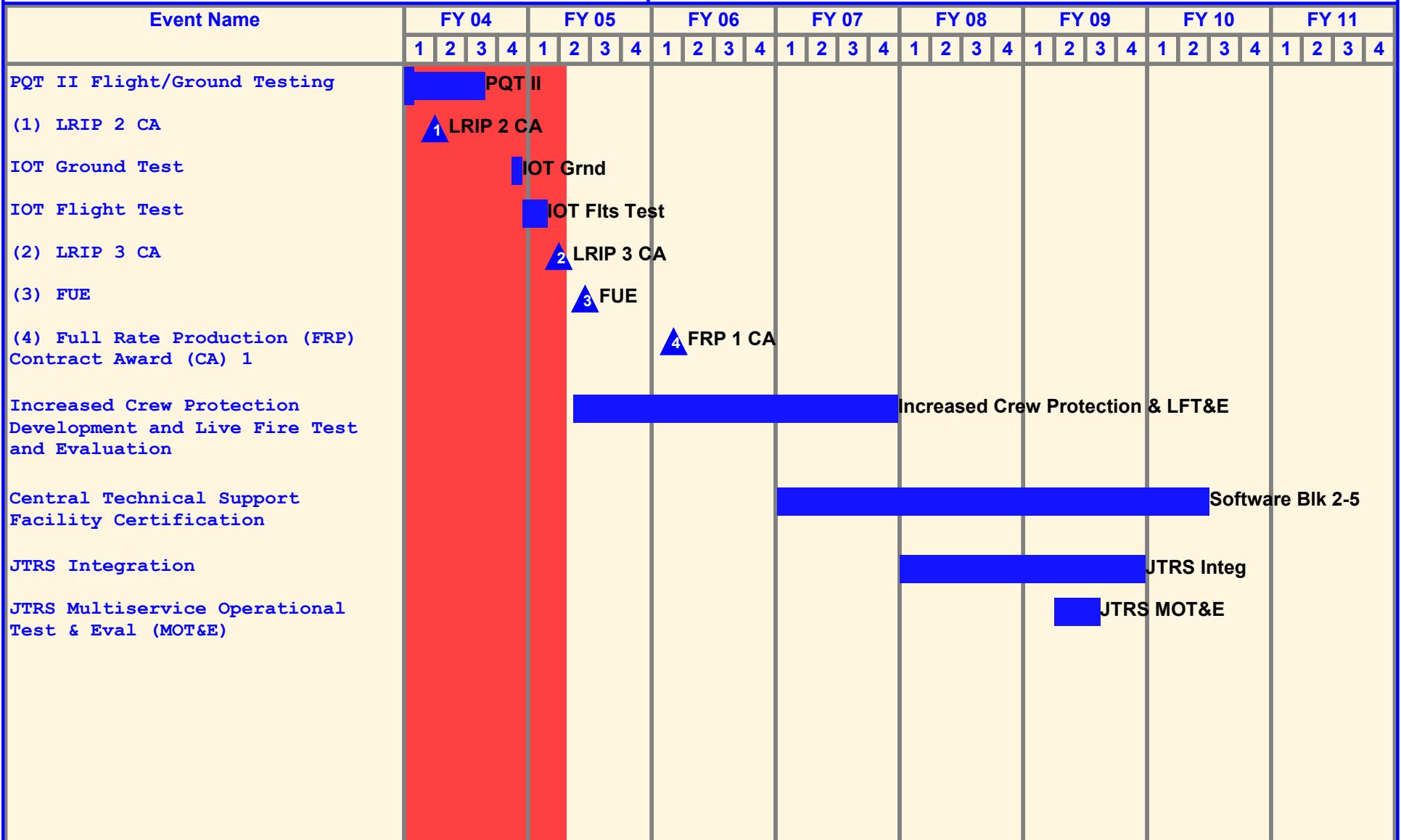
Schedule Profile (R4 Exhibit)

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Schedule Detail (R4a Exhibit)

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<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
PQT II Flight/Ground Testing	1-3Q							
LRIP 2 CA	1Q							
IOT Ground Test	4Q							
IOT Flight Test	4Q	1Q						
LRIP 3 CA		1Q						
FUE		2Q						
Full Rate Production (FRP) Contract Award (CA) 1			1Q					
Increased Crew Protection Development and Live Fire Test and Evaluation		2-4Q	1-4Q	1-4Q				
Central Technical Support Facility Certification				1-4Q	1-4Q	1-4Q	1-2Q	
JTRS Integration					1-4Q	1-4Q		
JTRS Multiservice Operational Test & Eval (MOT&E)						2-3Q		

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BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM				PROJECT 093		
COST (In Thousands)	FY 2004 Actual	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	8279	4793	1782	3263	9590	4077	4570	0	0	42777
<p><u>A. Mission Description and Budget Item Justification:</u> 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 Unit of Action (UoA) 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, decreases unit cost, and mitigates future obsolescence issues.</p>										
<u>Accomplishments/Planned Program</u>							FY 2004	FY 2005	FY 2006	FY 2007
Developed platform infrastructure requirements to support situational awareness.							2421	0	0	0
Developed, integrate, and test SAASM and JVMF (DCOMMS).							567	151	142	0
Perform developmental testing (software blocking).							203	0	382	0
Reduction in Total Ownership Cost/Card Consolidation Development.							4168	3687	356	2029
Develop anti-jamming hardware (analysis).							423	498	468	508
Perform technical assessments, concept studies, and risk reduction.							497	246	196	444
Develop, integrate and test to support UoA network interoperability.							0	211	238	282
Totals							8279	4793	1782	3263

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B. Other Program Funding Summary	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
MLRS Launcher (C65900)	37619	21118	20787	0	0	0	0	0	0	3020873
MLRS Mods (C67500)	19770	18897	14579	6813	5497	1858	3096	3098	27000	389279
MLRS Initial Spares (CA0257)	6473	6350	0	0	0	0	0	0	0	200625
MLRS Mod Initial Spares (CA0265)	1260	5036	5174	508	1019	1024	1024	1017	9000	41686
HIMARS Launcher (C02901)	121747	168596	174929	226887	235323	247398	258865	261380	2366883	4195629
HIMARS Modifications (C67501)	1986	472	8001	9238	10387	11675	11855	9246	90560	153420
HIMARS Initial Spares (CA0288)	6571	4016	8363	7742	11278	11762	12289	8447	127808	198276
HIMARS Mod Initial Spares (CA0289)	69	71	681	1285	1233	1040	1813	1862	31600	39654

C. Acquisition Strategy: The JTA-Army standards will be implemented for the M27 A1 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.

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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
a . Contract Card Consolidation, SAASM, and STE)	CPFF	LMMFC-D, Dallas, Texas	14161	3930	2Q	667	2Q	2103	2Q	11995	32856	0
b . Government Support	N/A	AMCOM/GSA, Redstone Arsenal, Alabama	5138	284	1-3Q	251	1-3Q	351	1-3Q	2199	8223	0
Subtotal:			19299	4214		918		2454		14194	41079	0
Remarks: SAASM - Selective Availability/Anti-Spoofing Module STE - Sensor to Effects 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 Cost	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
a . Support Contract	Various		0	0		78	1-3Q	124	1-3Q	853	1055	0
Subtotal:			0	0		78		124		853	1055	0

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BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM					PROJECT 093		
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
a . Test Support	N/A	CTSF, Ft. Hood, Texas	552	0		553	1-3Q	0		2249	3354	0
b . Test Support		AMCOM, Redstone Arsenal, Alabama	0	0		0		451	1-3Q	0	451	0
c . Test Support		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												
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
a . In-House Support	N/A	PFRMS Proj Ofc, Redstone Arsenal, Alabama	2407	436	1-4Q	233	1-4Q	234	1-4Q	941	4251	0
Subtotal:			2407	436		233		234		941	4251	0
Remarks: PFRMS - Precision Fires Rocket and Missile Systems												
Project Total Cost:			22557	4793		1782		3263		18237	50632	0

Schedule Profile (R4 Exhibit)																				February 2005												
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Event Name	FY 04				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	1	2	3	4
Card Consolidation																																
Sensor to Effects (STE)																																
SAASM-GPS Upgrades and Military Code Integration																																
DCOMMS, SAASM Black Key Capability Development/Integration																																
Software Blocking/Central Test Support Facility/OT Certification																																
Anti-jamming Hardware																																

Schedule Detail (R4a Exhibit)							February 2005	
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<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Card Consolidation	1-4Q	1-4Q	1-4Q	1-4Q				
Sensor to Effects (STE)		1-4Q	1-4Q					
SAASM-GPS Upgrades and Military Code Integration					1-4Q	1-4Q	1-4Q	1-4Q
DCOMMS, SAASM Black Key Capability Development/Integration	2-4Q	1-4Q	1-4Q					
Software Blocking /Central Test Support Facility/Operational Test Certification			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Anti-jamming Hardware	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q			

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COST (In Thousands)	FY 2004 Actual	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	54360	90584	103091	60264	9894	904	0	0	0	378482

A. Mission Description and Budget Item Justification: The Guided Multiple Launch Rocket System (GMLRS) is the Army's primary precision strike, artillery rocket system. Coupled with the High Mobility Artillery rocket System (HIMARS) launcher platform, the GMLRS provides the joint warfighter with unprecedented expeditionary capability as a highly mobile, rapidly deployable, precision guided munition with a reduced logistics burden effective against: cannon, mortar, rocket and missile artillery; air defense; light materiel; personnel; and point surface targets with predictable collateral damage. GMLRS is a major upgrade/replacement for the aging M26A1/A2 inventory. GMLRS integrates a guidance and control package and a new rocket motor that has achieved greater range and precision accuracy requiring fewer rockets to defeat targets than current artillery rockets, thereby reducing the logistics burden. In addition to HIMARS, the GMLRS will also be the primary precision strike munition for artillery units fielded with the M270A1 launcher. There are two variants of GMLRS--GMLRS with Dual Purpose Improved Conventional Munitions (DPICM) and GMLRS with a 2,000-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 warhead making it an all weather, low collateral damage, precision rocket. This added capability expands the Multiple Launch Rocket System (MLRS) target set to include point targets within urban and complex environments. GMLRS Unitary satisfies a validated user requirement and will be fielded to support early entry forces, Stryker brigades and Brigade Combat Teams in the Modular Force. GMLRS Unitary development efforts will also provide an insensitive munition (IM) rocket motor that will be cut into all GMLRS production once it is qualified. Continued assessments of future technologies and munitions will be performed to better satisfy validated user requirements. Additionally, appropriate spiral development and technology insertions into the GMLRS program will provide operational flexibility and capability against an expanded target set including moving targets. The system includes training devices for tactical training, classroom training and handling exercises. GMLRS is also a key component of the Marine Corps Future Fighting Effort.

Accomplishments/Planned Program	FY 2004	FY 2005	FY 2006	FY 2007
Conducted Development Engineering, Functional Configuration Audit, Final Product Definition Data Package (FPDDP), and System Integration Test	101	0	0	0
Performed Integration and Test of Alternative Self Destruct Fuze and Improved Mechanical Fuze	3421	0	0	0
Develop Advanced Field Artillery Tactical Data System (AFATDS) Interface	201	204	0	0
Conduct system test and evaluation activities to include Initial Operational Test (IOT), Ground and Flight Test.	1489	3813	0	0
Perform technical assessments, concept studies, prepare milestone documentation and risk reduction	103	105	249	152

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Accomplishments/Planned Program (continued)

	FY 2004	FY 2005	FY 2006	FY 2007
Conduct Development and Engineering for Insensitive Munitions (IM) Program	96	2326	6096	2341
Conduct Development Engineering, Design and Develop Warheads and Multi Mode Fuzes for Unitary	18491	26608	18049	9852
Initiate Initial Common Hardware Buy for Test Activities for Unitary (23 test articles for Engineering Development Testing (EDT), Production Qualification Testing (PQT), Cold Region Testing, & Initial Operational Test & Evaluation (OT&E))	0	5589	29293	6747
Perform Anti-Jamming Analysis and System Engineering/Integration for DPICM and Unitary	4013	3002	3939	4533
Conduct EDT Flight Test, PQT Ground and Flight Tests, Test Analysis for Unitary	13949	33595	10187	5321
Conduct Functional Configuration Audit, Final PDDP, and System Integration Test for Unitary	6046	8125	3622	3571
Perform Integration and Test of Alternative Multi-Mode Fuze for Risk Reduction for Unitary	3002	3111	3307	2681
Conduct system test and evaluation activities for Unitary	3448	4106	28349	25066
Totals	54360	90584	103091	60264

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B. Other Program Funding Summary	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
Missile Procurement Army - GMLRS (C64400)	106767	111868	124814	210116	377288	461756	569232	709367	10369823	13041031

C. Acquisition Strategy: The GMLRS DPICM is currently in Low Rate Initial Production (LRIP) and preparing for a Full Rate Production (FRP) decision third quarter FY05. 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 and desired new rocket motor capabilities related to insensitive munition compliance and increased range.

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, Global Positioning System (GPS) Anti-Jam capability and other technology opportunities (e.g., payloads, trajectory shaping, guidance, Cost As An Independent Variable (CAIV) initiatives). In FY05 Congress encouraged the Army to accelerate the GMLRS Unitary program and 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 (CENTCOM) requesting GMLRS Unitary rockets by fourth quarter FY06. Headquarters, Department of Army, validated the CENTCOM's urgent need statement on 6 January 2005 and authorized the Program to accelerate the GMLRS Unitary program.

ARMY RDT&E COST ANALYSIS(R3)

February 2005

BUDGET ACTIVITY

7 - Operational system development

PE NUMBER AND TITLE

0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM

PROJECT

784

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
a . SDD DPICM Contract	SS/CPAF	LMMFCS Dallas, TX	100909	1336	1-2Q	1263	2Q	1152	1-2Q	0	104660	0
b . SDD Unitary Contract	SS/CPFF	LMMFCS Dallas, TX	58631	64687	1Q	41358	1Q	13019	1Q	1578	179273	0
c . Government Support	N/A	AMCOM/AMRDEC, RSA	32617	2906	1-4Q	3514	1-4Q	2540	1-4Q	743	42320	0
Subtotal:			192157	68929		46135		16711		2321	326253	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 Cost	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
a . Support Contract	C/CPFF	Camber Research/S3/TMI, Alabama	6030	2040	1-3Q	4510	1-3Q	3513	1-3Q	397	16490	0
Subtotal:			6030	2040		4510		3513		397	16490	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

ARMY RDT&E COST ANALYSIS(R3)										February 2005		
BUDGET ACTIVITY 7 - Operational system development					PE NUMBER AND TITLE 0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM					PROJECT 784		
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
a . Test Support	N/A	WSMR, NM	19818	12082	1-4Q	44076	1-4Q	35424	1-4Q	6132	117532	0
Subtotal:			19818	12082		44076		35424		6132	117532	0
Remarks: WSMR, NM - White Sands Missile Range, New Mexico												
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
a . In-House Support	N/A	PFRMS Proj Ofc, RSA	16268	7533	1-4Q	8370	1-4Q	4616	1-4Q	1948	38735	0
Subtotal:			16268	7533		8370		4616		1948	38735	0
Remarks: PFRMS - Precision Fires Rocket and Missile Systems RSA - Redstone Arsenal, Alabama												
Project Total Cost:			234273	90584		103091		60264		10798	499010	0

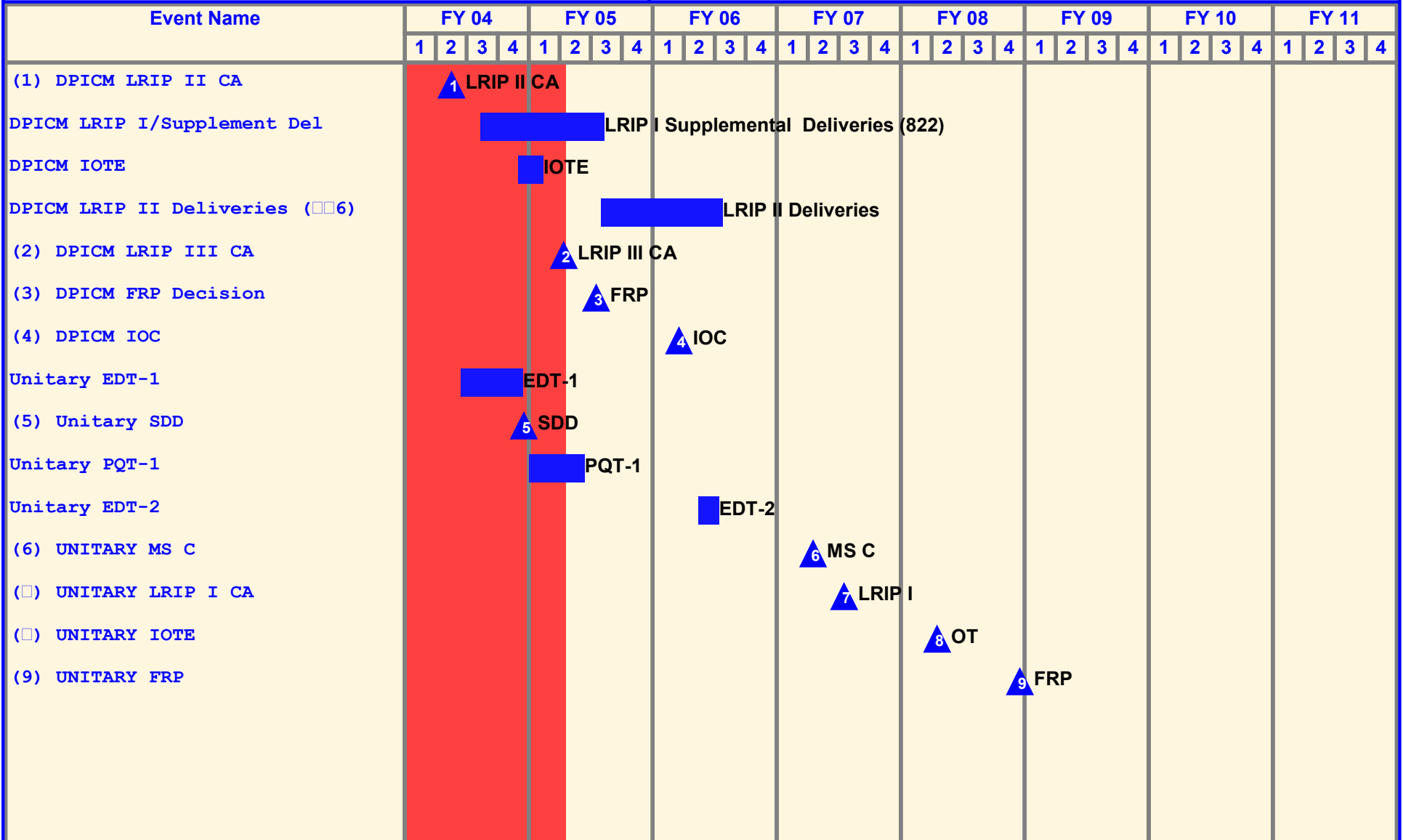
Schedule Profile (R4 Exhibit)

February 2005

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM

PROJECT
784



Schedule Detail (R4a Exhibit)							February 2005	
BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0603778A - MLRS PRODUCT IMPROVEMENT PROGRAM				PROJECT 784
<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
DPICM LRIP II CA	2Q							
DPICM IOTE	4Q	1Q						
DPICM LRIP III C A		2Q						
Unitary Configuration EDT, PQT Grnd and Flight Tests	3-4Q	2-3Q	3Q					
Unitary MS C				2Q				
Unitary LRIP I CA				3Q				
Unitary IOTE					2Q			
Unitary FRP					4Q			