Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army										DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*				R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*							
COST ($ in Millions)	**FY 2010**	**FY 2011**	**FY 2012 Base**	**FY 2012 OCO**	**FY 2012 Total**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**Cost To Complete**	**Total Cost**
Total Program Element	26.624	51.619	66.641	-	66.641	85.162	90.213	59.279	31.640	Continuing	Continuing
090: *MLRS HIMARS*	1.918	3.367	6.132	-	6.132	6.124	6.221	6.011	4.876	Continuing	Continuing
093: *Multi-Launch Rocket System (MLRS)*	6.350	3.691	15.883	-	15.883	13.236	8.663	0.979	0.993	Continuing	Continuing
784: *GUIDED MLRS*	7.864	2.582	2.543	-	2.543	34.690	44.561	23.176	25.771	Continuing	Continuing
78G: *GMLRS ALTERNATIVE WARHEADS*	10.492	41.979	42.083	-	42.083	31.112	30.768	29.113	-	0.000	185.547

Note

Change Summary Explanation: Funding - FY 2010: Inflation Adjustments; FY 2012: Funds used to develop increased crew survivability for the Multiple Launch Rocket System (093) and other inflation adjustments.

A. Mission Description and Budget Item Justification

The M142 High Mobility Artillery Rocket System (HIMARS) is a full spectrum, combat proven, all weather, 24/7 lethal and responsive, precision strike weapon system that fully supports more deployable, affordable and lethal, Brigade Combat Teams, Fires Brigade, Modular Forces, and Joint Expeditionary Forces. The HIMARS launcher is a C-130 transportable, wheeled, indirect fire, rocket/missile launcher capable of firing all rockets and missiles in the current and future Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM) and Army Tactical Missile System (ATACMS) Family of Munitions (AFOM) engaging targets with precision out to ranges of 300 kilometers. HIMARS satisfies the Army's digitization requirements by interfacing with the Advanced Field Artillery Tactical Data System (AFATDS) fire support command and control system. The HIMARS product improvement program provides funding for research, development, and integration efforts necessary for sustainment, obsolescence mitigation, reliability improvements, incorporation of advanced automotive, armor, armament and system hardware and software technologies, and decreasing the logistics footprint. This effort includes performing technical assessments, concept studies, and risk reduction efforts for incorporation of future requirements. The HIMARS product improvement program maintains compliance with Intra-Army Interoperability and Digital Communications.

The Multiple Launch Rocket and Missile System (MLRS) is a full spectrum, combat proven, all weather, 24/7 lethal and responsive, Precision Strike weapon system that is organic/assigned to Fires Brigades supporting Brigade Combat Teams. The MLRS launcher provides critical missile precision strike, operational shaping fires, counterfire, and close support destructive and suppressive fires. The launcher is complimented by the MLRS Family of Munitions (MFOM) to include the Guided Multiple Launch Rocket System (GMLRS), and the Army Tactical Missile System (ATACMS) Family of Munitions (AFOM), capable of engaging targets up to a range of 300 kilometers. The MLRS product improvement program provides funding for research, development, and integration efforts to the MLRS necessary for sustainment, obsolescence mitigation, reliability improvements, incorporation of advanced automotive, armor, armament and system hardware and software technologies, and decreasing the logistics footprint. This effort includes performing technical assessments, concept studies, and risk reduction efforts for incorporation of future requirements. The MLRS product improvement program maintains compliance with Intra-Army Interoperability and Digital Communications via Joint Variable Message Format.

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army	DATE: February 2011
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Guided Multiple Launch Rocket System (GMLRS) munitions are the Army's primary organic Joint Expeditionary, all-weather, all-terrain, 24/7, tactical precision guided rockets employed by modular Fires Brigades supporting Brigade Combat Teams, Divisions, Joint Special Operations Force, Joint Force Combatant Commanders, and is also a key component of the Marine Corps Future Fighting Effort. GMLRS is the primary munitions for units fielded with the High Mobility Artillery Rocket System (HIMARS) and Multiple Launch Rocket System (MLRS) M270A1 rocket and missile launcher platforms. GMLRS integrates a guidance and control package and an improved rocket motor achieving greater range and precision accuracy requiring fewer rockets to defeat targets, thereby reducing the logistics burden. The two fielded variants are GMLRS with Dual Purpose Improved Conventional Munitions (DPICM /Increment 1) and GMLRS Unitary a 200-pound class high explosive warhead (Increment 2). The GMLRS Unitary is a modification to the GMLRS DPICM integrating a multi-mode fuze and high explosive warhead making it an all-weather, low collateral damage, precision rocket. This modification expands the MLRS target set into urban and complex environments by adding, point, proximity and delay fuzing modes, and supports Troops in Contact (TIC). A third variant of GMLRS, the Alternative Warhead (AW/Increment 3) (currently in Technology Development), is scheduled to enter Engineering Manufacturing Development in 1QFY12; with the Production and Deployment beginning in 2QFY15. The GMLRS AW is being developed to replace DPICM and meet requirements outlined in a 25 JUN 2008 DoD Cluster Munitions Policy, which requires all cluster munitions by 2019 to produce less than 1% Unexploded Ordinance on the battlefield. As of FY10, the AW Program has been managed and funded under project code, 78G.

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	27.549	51.619	54.018	-	54.018
Current President's Budget	26.624	51.619	66.641	-	66.641
Total Adjustments	-0.925	-	12.623	-	12.623
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-0.925	-	12.623	-	12.623

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: February 2011
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COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
090: *MLRS HIMARS*	1.918	3.367	6.132	-	6.132	6.124	6.221	6.011	4.876	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The M142 High Mobility Artillery Rocket System (HIMARS) is a full spectrum, combat proven, all weather, 24/7 lethal and responsive, precision strike weapon system that fully supports more deployable, affordable and lethal, Brigade Combat Teams, Fires Brigade, Modular Forces, and Joint Expeditionary Forces. The HIMARS launcher is a C-130 transportable, wheeled, indirect fire, rocket/missile launcher capable of firing all rockets and missiles in the current and future Multiple Launch Rocket System (MLRS) Family of Munitions (MFOM) and Army Tactical Missile System (ATACMS) Family of Munitions (AFOM) engaging targets with precision out to ranges of 300 kilometers. HIMARS satisfies the Army's digitization requirements by interfacing with the Advanced Field Artillery Tactical Data System (AFATDS) fire support command and control system. The HIMARS product improvement program provides funding for research, development, and integration efforts necessary for sustainment, obsolescence mitigation, reliability improvements, incorporation of advanced automotive, armor, armament and system hardware and software technologies, and decreasing the logistics footprint. This effort includes performing technical assessments, concept studies, and risk reduction efforts for incorporation of future requirements. The HIMARS product improvement program maintains compliance with Intra-Army Interoperability and Digital Communications. HIMARS has been deployed to both Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) with great success by both US Army and Marine Corps units.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: MLRS Production Improvement Program-HIMARS	1.918	3.367	6.132
Articles:	0	0	
Description: Continue system design and Production Qualification Testing, conduct Functional Configuration Audit, and develop Integrated Logistics Products; integrate and test Horizontal Technology Insertion (HTI) upgrades including Increased Crew Protection Cab, Enhanced Command and Control, Improved Initialization, Obsolescence Mitigation, Tactical Fire Control, Embedded Training Launcher Loader Module electric drive, Diagnostics/Prognostics, Alternate Coupling, Situational Awareness, Long Range Communication and future munition integration. Perform technical assessments, concept studies, cost reduction, risk reduction, field issue resolution and required documentation.			
FY 2010 Accomplishments: Development of unique components for Long Range Communications, Driver Vision Enhancement, and Blue Force Tracking was mostly completed. Software updates were developed, tested and certified. Analysis and design for implementation of obsolescent components was conducted for the fire control system including Fire Control Display. Enhanced ballistic transparent armor progressed through development.			
FY 2011 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Complete testing and integration efforts for Long Range Communications, Driver Vision Enhancement, Blue Force Tracking and Fire Control Display. Effort will be required to maintain C4I/Interoperability certification and Network Interoperability certification. Technical assessments and concept studies in the areas of automotive and hardware/software technologies and improved transportability will be conducted to support evolving mission requirements, planning for technology insertion and continued obsolescence mitigation. ***FY 2012 Plans:*** The focus of FY2012 program is execution of development activities for additional improved crew protection against emerging threats and enhancements to communications and battle command. Continued effort will be required to maintain C4I/ Interoperability certification and Network Interoperability certification. Technical assessments and concept studies in the areas of automotive and hardware/software technologies and improved transportability will be conducted to support evolving mission requirements, planning for technology insertion and continued obsolescence mitigation.			
Accomplishments/Planned Programs Subtotals	1.918	3.367	6.132

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• C02901: *HIMARS Launcher*	208.416	211.517	31.674		31.674		0.338	0.344	0.350	0.000	472.866
• C67501: *HIMARS Modifications*	70.890	39.371	11.670		11.670		15.324	15.490	15.731	Continuing	Continuing
• CA0289: *HIMARS Modifications: Initial Spares*	1.786	1.856								0.000	3.642
• CA0288: *Initial Spares, HIMARS*	9.748	9.706	0.937		0.937		1.238	1.260	1.284	1.284	26.676

D. Acquisition Strategy

HIMARS follow-on HTI efforts include the Increased Crew Protection, Enhanced Command and Control, Improved Initialization, and Long Range Communications.

E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army		DATE: February 2011
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	Various	PFRMS Project Office:Redstone Arsenal, Alabama	9.016	0.147		0.199		-		0.199	Continuing	Continuing	Continuing
		Subtotal	9.016	0.147		0.199		-		0.199			

Remarks

PFRMS - Precision Fires Rocket and Missile Systems

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Risk Reduction/Maturation Contract	SS/CPIF	LMMFC:Texas	110.202	-		-		-		-	Continuing	Continuing	Continuing
Path through Operational Test	SS/CPFF	LMMFC:Texas	11.455	-		-		-		-	Continuing	Continuing	Continuing
Battle Command	SS/CPFF	CECOM, STRICOM, AMRDEC, Techrizon, LMMFC:Various	12.281	2.516		5.075		-		5.075	Continuing	Continuing	Continuing
Work Directives/ Chassis and Cab	TBD	TACOM (S&S):Warren, Michigan	5.561	-		-		-		-	Continuing	Continuing	Continuing
Other Government Agencies (OGA)	Various	AMCOM/ GSA & RSA:Various	17.025	0.294		0.337		-		0.337	Continuing	Continuing	Continuing
Increased Crew Protection	SS/CPFF	LMMFC:Texas	25.462	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	181.986	2.810		5.412		-		5.412			

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
TBD - To Be Determined; N/A - Not Applicable
CECOM - US Army Communication - Electronics Command
AMRDEC - Aviation and Missile Research Development and Engineering Center

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army			DATE: February 2011
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract

SS - Sole Source; CPIF - Cost Plus Incentive Fee; CPAF - Cost Plus Award Fee
CPFF - Cost Plus Fixed Fee; UA - Unit of Action

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/CPFF	Camber Research, S3, TMI:Various	3.259	0.299		0.311		-		0.311	Continuing	Continuing	Continuing
		Subtotal	3.259	0.299		0.311		-		0.311			

Remarks

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

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	Various	Fort Hood Texas, ATEC, APG MD, WSMR, RTTC RSA.:Various	43.232	0.111		0.210		-		0.210	Continuing	Continuing	Continuing
		Subtotal	43.232	0.111		0.210		-		0.210			

Remarks

APG MD - Aberdeen Proving Ground, Maryland
WSMR NM - White Sands Missile Range, New Mexico
RTTC RSA - Redstone Technical Test Center, Redstone Arsenal, Alabama
ATEC - US Army Test and Evaluation Command

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	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	237.493	3.367		6.132		-		6.132			

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: February 2011
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COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
093: *Multi-Launch Rocket System (MLRS)*	6.350	3.691	15.883	-	15.883	13.236	8.663	0.979	0.993	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Multiple Launch Rocket and Missile System (MLRS) is a full spectrum, combat proven, all weather, 24/7 lethal and responsive, Precision Strike weapon system that is organic/assigned to Fires Brigades supporting Brigade Combat Teams. The MLRS launcher provides critical missile precision strike, operational shaping fires, counterfire, and close support destructive and suppressive fires. The launcher is complimented by the MLRS Family of Munitions (MFOM) to include the Guided Multiple Launch Rocket System (GMLRS), and the Army Tactical Missile System (ATACMS) Family of Munitions (AFOM), capable of engaging targets up to a range of 300 kilometers. The MLRS product improvement program provides funding for research, development, and integration efforts to the MLRS necessary for sustainment, obsolescence mitigation, reliability improvements, incorporation of advanced automotive, armorment and system hardware and software technologies, and decreasing the logistics footprint. This effort includes performing technical assessments, concept studies, and risk reduction efforts for incorporation of future requirements. The MLRS product improvement program maintains compliance with Intra-Army Interoperability and Digital Communications via Joint Variable Message Format.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: MLRS Product Improvement Program	6.350	3.691	15.883
Articles:	0	0	
Description: The MLRS product improvement program ensures compliance as defined in the Department of Defense (DoD) Information Technical Standards. Funding is provided to several Government Agencies/Laboratories each Fiscal Year in support of this program. Support efforts also include Enhanced C2, Interoperability Certifications, obsolescence mitigation, increased crew protection, automotive updates and hardware/software enhancements, and Information Assurance compliance. All efforts are directed toward preservation of platform viability and readiness to accept technology insertion as capability enhancements and obsolescence mitigations are developed. Perform Command, Control, Communications, Computers, and Intelligence (C4I)/Interoperability Certification Tests, Improved Operational Timeline, and Conduct Network Interoperability Testing/Certification. Perform technical assessments, concept studies, obsolescence mitigation, crew protection, automotive and hardware/software enhancements, and risk reduction. ***FY 2010 Accomplishments:*** Executed development efforts for Long Range Communications, Driver Vision Enhancement, and Blue Force Tracker. MLRS Fire Control System Software V7.08C introduced functional updates to improve the communication interface between the M270A1 fire control system and precision guided rocket and missile munitions fired from the launch platform. Software was developed,			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
verified, formally tested, and certified. MLRS Fire Control System Software V7.09 introduced functional updates to load and execute missions with both Guided Unitary rockets and Army TACMS missiles loaded onto a single M270A1, and to interface with an AN/PC-150 (UF) receiver/transmitter. Software suite was developed, verified, formally tested, and certified by the PM. Analysis and design for implementation of obsolescent components was conducted (including fire control system electronic components, Auxiliary Power Unit/Environmental Control Unit update, and mechanical components common with the Bradley vehicle). Concept activities related to crew protection and fire control system updates were executed. ***FY 2011 Plans:*** Continue concept studies supporting product improvement program - including prototyping of new fire control system hardware/ software architecture. Complete analyses supporting definition of requirements for improved crew protection cab. Perform Technical assessments and concept studies in the areas of automotive and hardware/software technologies, to support evolving mission requirements, planning for technology insertion, and continued obsolescence mitigation. ***FY 2012 Plans:*** Execute development activities to improve crew protection with a new cab and enhanced chassis blast protection that includes design activities with formal PDR and CDR. Maintain C4I/Interoperability certification and Network Interoperability certification. Conduct technical assessments and concept studies in the areas of automotive and hardware/software technologies to support evolving mission requirements, planning for technology insertion, and continued obsolescence mitigation.			
Accomplishments/Planned Programs Subtotals	6.350	3.691	15.883

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• MLRS Mods (C67500): *MLRS Mods(C67500)*	22.423	8.217	8.236		8.236		32.136	33.158	32.703	Continuing	Continuing
• MLRS Mod Initial Spares (CA0265): *MLRS Mod Initial Spares (CA0265)*	0.200	1.014	1.031		1.031		1.069	1.072	1.062	Continuing	Continuing

D. Acquisition Strategy

The MLRS product improvement program is currently conducting concept studies and development efforts including Enhanced C2, Interoperability Certifications, obsolescence mitigation, increased crew protection, automotive updates and hardware/software enhancements, and Information Assurance compliance.

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E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army		DATE: February 2011
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	SS/FP	PFRMS Proj Ofc, Redstone Arsenal, Alabama:Redstone Arsenal, Alabama	3.740	0.340		0.340		-		0.340	Continuing	Continuing	Continuing
		Subtotal	3.740	0.340		0.340		-		0.340			

Remarks

PFRMS - Precision Fires Rocket and Missile Systems
SS/FP Sole Source Fixed Price

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract	SS/FP	LMMFC-D:Texas	22.670	-		-		-		-	Continuing	Continuing	Continuing
Other Government Agencies OGA	SS/FP	FT SILL OK, CECOM-NJAMRDEC-RSA AL,:various	11.297	2.126		0.500		-		0.500	Continuing	Continuing	Continuing
MLRS Improvement Contract	TBD	TBD:TBD	-	-		14.436		-		14.436	0.000	14.436	0.000
		Subtotal	33.967	2.126		14.936		-		14.936			

Remarks

SS/FP - Sole Source Fixed Price LMMFC-D - Lockheed Martin Missile and Fire Control-Dallas
TBD - To Be Determined
N/A - Not Applicable AMRDEC - United States Army Research, Development, and Engineering Command
RSA AL - Redstone Arsenal, Alabama OK - Oklahoma
CECOM - United States Army Communication - Electronics Command

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	Various	Multiple:Multiple	2.128	0.725		0.457		-		0.457	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army		DATE: February 2011
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	2.128	0.725		0.457		-		0.457			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support, Joint Interoperability Test Certificate	SS/FP	CTSF, Ft. Hood:Texas	1.737	0.500		0.150		-		0.150	Continuing	Continuing	Continuing
Test Support	SS/FP	AMCOM, RTTC, Redstone Arsenal, Alabama:Redstone Arsenal, Alabama	1.033	-		-		-		-	Continuing	Continuing	Continuing
Test Support	SS/FP	WSMR, New Mexico:New Mexico	0.442	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	3.212	0.500		0.150		-		0.150			

Remarks

CTSF - Central Test Support Facility
AMCOM - Army Missile Command
RTTC-Redstone Technical Test Center
WSMR - White Sands Missile Range
SS/FP Sole Source Fixed Price

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	43.047	3.691		15.883		-		15.883			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army		DATE: February 2011
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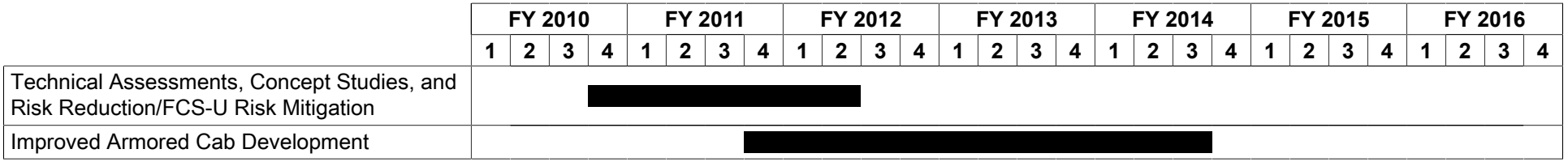

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	**PROJECT** 093: *Multi-Launch Rocket System (MLRS)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Technical Assessments, Concept Studies, and Risk Reduction/FCS-U Risk Mitigation	4	2010	2	2012
Improved Armored Cab Development	4	2011	3	2014

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 784: *GUIDED MLRS*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
784: *GUIDED MLRS*	7.864	2.582	2.543	-	2.543	34.690	44.561	23.176	25.771	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Guided Multiple Launch Rocket System (GMLRS) munitions are the Army's primary organic Joint Expeditionary, all-weather, 24/7, tactical precision guided rockets employed by modular Fires Brigades supporting Brigade Combat Teams, Divisions, Joint Special Operations Force, and Joint Force combatant commanders and is also a key component of the Marine Corps Future Fighting Effort. GMLRS is the primary munitions for units fielded with the High Mobility Artillery Rocket System (HIMARS) and Multiple Launch Rocket System (MLRS) M270A1 rocket and missile launcher platforms. GMLRS provides close, medium, and long range precision and area fires to destroy, suppress, and shape threat forces and protect friendly forces against the following: cannon, mortar, rocket and missile artillery, light materiel and armor, personnel, command and control, and air defense surface targets. GMLRS integrates guidance and control packages and an improved rocket motor achieving greater range and precision accuracy, requiring fewer rockets to defeat targets, thereby reducing the logistics burden. The two fielded variants are GMLRS with Dual Purpose Improved Conventional Munitions (DPICM/Increment 1) and GMLS Unitary (U/Increment 2), a 200-pound class high explosive warhead. The GMLRS-U is the only variant currently in production, integrating a multi-mode fuze and high explosive warhead making it an all-weather, low collateral damage, precision strike rocket. GMLRS-U expands the MLRS target set into urban and complex environments by adding, point, proximity and delay fuzing modes. With over 1900 rockets fired in support of Overseas Contingency Operations (OCO), the GMLRS-U rocket has demonstrated high effectiveness and low collateral damage while supporting Troops in Contact (TIC). A third variant of GMLRS, the Alternative Warhead (AW/Increment 3), is being developed to replace DPICM and meet requirements outlined in a 25 JUN 2008 Cluster Munitions Policy, which requires all cluster munitions by 2019 to produce less than 1% Unexploded Ordinance (UXO) on the battlefield. Enhanced GMLRS technology improvements will provide the following: (1) enhanced operational capability and flexibility across the target set, (2) potential cost savings across weapon system life cycle through obsolescence initiatives, (3) test equipment commonality and reduced user effort for sustainment operations with enhancements to the MLRS Common Test Equipment (MCTE), (4) future insensitive munitions (IM) technology studies, and (5) optimize and extend ranges and scalable effects to reduce collateral damage, as per emerging requirements currently in the Joint Capability Integration and Development System (JCIDS) process.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Assess and improve GMLRS rockets.	1.552	1.734	1.526
Articles:	0	0	
Description: Funding is provided for the following effort			
FY 2010 Accomplishments: Assess rocket design/seek improvements in reliability.			
FY 2011 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 784: *GUIDED MLRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Continue to assess GMLRS rocket design and seek improvements in reliability as necessary. ***FY 2012 Plans:*** Continue to assess and improve GMLRS rockets.			
Title: Conduct development engineering for IM program. ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Testing of IM motors. ***FY 2012 Plans:*** Additional IM improvements investigation.	3.281 0	-	0.381
Title: Investigate obsolescense/cost reduction opportunities/second source suppliers. ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Conducted development engineering; perform integration and test of multi-mode fuzes and potential alternate warhead solutions while monitoring the industry to mitigate obsolescense and investigate cost reductions through alternate sources of procurement. ***FY 2011 Plans:*** Conduct development engineering; perform integration and test of multi-mode fuzes and potential alternate warhead solutions while monitoring the industry to mitigate obsolescense and investigate cost reductions through alternate sources of procurement. ***FY 2012 Plans:*** Continue the development engineering; performing integration of multi-mode fuzes and potential alternate warhead solutions while assessing the industry to mitigate obsolescense and investigate cost reductions through alternate sources of procurement.	0.853 0	0.848 0	0.636
Title: Testing ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:***	2.178 0	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 784: *GUIDED MLRS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Conduct test support and evaluation activities.			
Accomplishments/Planned Programs Subtotals	7.864	2.582	2.543

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• GMLRS: *GMLRS*	353.311	291.041	314.167		314.167		337.058	336.733	373.181	Continuing	Continuing

D. Acquisition Strategy

The MLRS Product Improvement Program project is intended to support streamlined product improvement initiatives as they are identified by the material developer or combat developer. This project also supports insensitive munition (IM) activities to improve the overall posture of the system all the way down to component level. The product office also leverages this project to investigate and develop alternative material changes to improve the GMLRS family of munitions. Future initiatives could include a service life extension program to extend the shelf life of the GMLRS rocket.

E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 784: *GUIDED MLRS*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	TBD	PFRMS Project Office,:RSA	26.498	0.599		-		-		-	Continuing	Continuing	Continuing
		Subtotal	26.498	0.599		-		-		-			

Remarks

TBD-To Be Determined; Cont.-Continuing; PFRMS - Precision Fires Rocket and Missile Systems; RSA-Redstone Arsenal, Alabama

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EMD DPICM Contract	SS/CPAF	LMMFCS:Dallas, TX	91.194	-		-		-		-	Continuing	Continuing	Continuing
Other Government Agencies	TBD	AMCOM/ AMRDEC,:RSA	76.086	0.338		-		-		-	Continuing	Continuing	Continuing
EMD Unitary Contract/Multiple	SS/CPFF	LMMFCS:Dallas, TX	270.525	1.388		2.282		-		2.282	Continuing	Continuing	Continuing
		Subtotal	437.805	1.726		2.282		-		2.282			

Remarks

EMD-Engineering and Maunfacturing Development; DPICM - Dual Purpose Improved Conventional Munitions; SS/CPAF-Sole Source/Cost Plus Award Fee; SS/CPFF-Sole Source/ Cost Plus Fixed Fee; Cont.-Continuing; LMMFCS - Lockheed Martin Missile and Fire Control System; TX - Texas; AMCOM-Aviation and Missile Command; TBD-To Be Determined; AMRDEC - U.S. Army Research, Development and Engineering Command; RSA - Redstone Arsenal, Alabama

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/CPFF	Camber Research/S3/ TMI,:Alabama	20.196	0.257		0.261		-		0.261	Continuing	Continuing	Continuing
		Subtotal	20.196	0.257		0.261		-		0.261			

Remarks

C/CPFF-Cost/Cost Plus Fixed Fee; Cont.-Continuing; S3-Systems Studies Simulation, Inc.; TMI-Tec Masters, Inc.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 784: *GUIDED MLRS*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	TBD	WSMR,:NM	106.683	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	106.683	-		-		-		-			

Remarks

TBD-To Be Determined; Cont.-Continuing; WSMR, NM - White Sands Missile Range, New Mexico

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	591.182	2.582		2.543		-		2.543			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	**PROJECT** 784: *GUIDED MLRS*

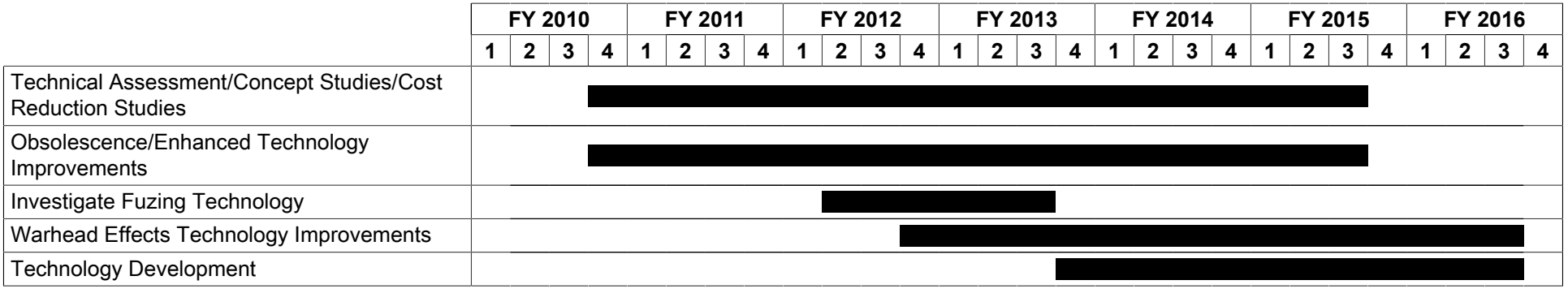

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	**PROJECT** 784: *GUIDED MLRS*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Technical Assessment/Concept Studies/Cost Reduction Studies	4	2010	3	2015
Obsolescence/Enhanced Technology Improvements	4	2010	3	2015
Investigate Fuzing Technology	2	2012	3	2013
Warhead Effects Technology Improvements	4	2012	3	2016
Technology Development	4	2013	3	2016

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 78G: *GMLRS ALTERNATIVE WARHEADS*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
78G: *GMLRS ALTERNATIVE WARHEADS*	10.492	41.979	42.083	-	42.083	31.112	30.768	29.113	-	0.000	185.547
Quantity of RDT&E Articles											

Note

Not applicable at this time.

A. Mission Description and Budget Item Justification

Guided Multiple Launch Rocket System (GMLRS) munitions are the Army's primary organic Joint Expeditionary, all-weather, 24/7, tactical precision guided rockets employed by modular Fires Brigades supporting Brigade Combat Teams, Divisions, Joint Special Operations Force, and Joint Force combatant commanders and is also a key component of the Marine Corps Future Fighting Effort. GMLRS is the primary munitions for units fielded with the High Mobility Artillery Rocket System (HIMARS) and Multiple Launch Rocket System (MLRS) M270A1 rocket and missile launcher platforms. GMLRS provides close, medium, and long range precision and area fires to destroy, suppress, and shape threat forces and protect friendly forces against the following: cannon, mortar, rocket and missile artillery, light materiel and armor, personnel, command and control, and air defense surface targets. GMLRS integrates guidance and control packages and an improved rocket motor achieving greater range and precision accuracy, requiring fewer rockets to defeat targets, thereby reducing the logistics burden. The two fielded variants are GMLRS with Dual Purpose Improved Conventional Munitions (DPICM/Increment 1) and GMLRS Unitary (U/Increment 2), a 200-pound class high explosive warhead. A third variant of GMLRS, the Alternative Warhead (AW/Increment 3) (currently in the Technology and Development (TD) Phase) is being developed to replace DPICM and meet requirements outlined in a 25 JUN 2008 DoD Cluster Munitions Policy, which requires all cluster munitions to produce less than 1% Unexploded Ordinance (UXO) on the battlefield by 2019. Increment 3 will fill a Warfighting Capability Gap left by the future removal of current cluster munitions from the battlefield. This effort includes development, integration, and test activities to evaluate payload performance against validated models/simulations. Following the TD Phase and successful Milestone B, the Army will down-select to a single warhead design to carry into Engineering and Manufacturing Development (1QFY12); with Production and Deployment beginning in 2QFY15. Enhanced GMLRS technology improvements will provide the following: (1) enhanced operational capability and flexibility across the target set, (2) potential cost savings across weapon system life cycle through obsolescence initiatives, (3) test equipment commonality and reduced user effort for sustainment operations with enhancements to the MLRS Common Test Equipment (MCTE), (4) future insensitive munitions (IM) technology studies, and (5) optimize and extend ranges and scalable effects to reduce collateral damage, as per emerging requirements currently in the Joint Capability Integration and Development System (JCIDS) process.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Conduct Development Engineering, Design Component Testing, and Performance Analysis.	2.609	22.938	21.587
Articles:	0	0	
Description: Funding is provided for the following effort			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 78G: *GMLRS ALTERNATIVE WARHEADS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
FY 2010 Accomplishments: Assemble and integrate warhead prototypes. ***FY 2011 Plans:*** Preliminary Design Review (PDR) in support of MS B. ***FY 2012 Plans:*** Design optimization and analysis, System Readiness Review (SRR) and Initial Design Review (IDR) in EMD Phase.			
Title: Perform technical assessments and concept studies. ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Begin Analysis of Alternatives for Milestone B. ***FY 2011 Plans:*** Complete Analysis of Alternatives for Milestone B/Technical Assessments/Model/Simulation. ***FY 2012 Plans:*** Evaluate SRR and IDR in EMD.	1.663 0	10.967 0	6.214
Title: Prepare Milestone Documentation, Risk Reduction, and Program Reviews. ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Statutory/Regulatory milestone documentation support for MS B. ***FY 2011 Plans:*** Capabilities Development Document (CDD), Statutory/Regulatory documentation support for MS B. ***FY 2012 Plans:*** Design optimization and analysis in EMD Phase.	1.962 0	3.148 0	1.657
Title: Conduct System Test and Evaluation Activities. ***Articles:***	4.258 0	4.926 0	12.625

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 78G: *GMLRS ALTERNATIVE WARHEADS*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Description: Funding is provided for the following effort ***FY 2010 Accomplishments:*** Flyoff testing of warhead candidates. ***FY 2011 Plans:*** Test flight data analysis. ***FY 2012 Plans:*** Test planning in support of MS C.			
Accomplishments/Planned Programs Subtotals	10.492	41.979	42.083

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

The GMLRS AW rocket will be a product improved version of the current GMLRS DPICM rocket. The GMLRS Program strategy relative to design technology is to competitvely evaluate leading technologies, offerors, and hardware through an open competition between three potential warheads and develop the most promising solution for system procurement. At the conclusion of the Technology Demonstration (TD) Phase, the government will make a downselect to one technology to be fully developed and integrated during Engineering and Manufacturing Development Phase.

E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 78G: *GMLRS ALTERNATIVE WARHEADS*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	TBD	PFRMS Project Office,:RSA	-	3.615		4.481		-		4.481	Continuing	Continuing	Continuing
		Subtotal	-	3.615		4.481		-		4.481			

Remarks

TBD-To Be Determined; Cont.-Continuing; PFRMS-Precision Fires Rocket and Missile Systems; RSA-Redstone Arsenal, Alabama

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AWP Contracts (Multiple)	Various	GD-OTS (Niceville, FL); ATK (Plymouth, MN); OR Aerojet (Sacramento, CA); single vendor:LMMFCS (Dallas, TX), Systems Integrator	-	30.584		28.782		-		28.782	Continuing	Continuing	Continuing
Other Government Agencies	TBD	AMCOM/ AMRDEC,:RSA	-	2.404		2.605		-		2.605	Continuing	Continuing	Continuing
		Subtotal	-	32.988		31.387		-		31.387			

Remarks

AWP-Alternative Warhead Program; Various-Competitive/Firm Fixed Price/Sole Source/Cost Plus Fixed Fee; TBD-To Be Determined; Cont.-Continuing; AMCOM-Army Materiel Command; AMRDEC-U.S. Army Research, Development and Engineering Command; RSA-Redstone Arsenal, Alabama; GD-OTS-General Dynamics-Ordnance and Tactical Systems; FL-Florida; ATK-Alliant Techsystems, Inc.; MN-Minnesota; LMMFCS-Lockheed Martin Missile and Fire Control System; TX-Texas

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/CPFF	Camber Research/S3/ TMI,:Alabama	-	1.029		1.044		-		1.044	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	PROJECT 78G: *GMLRS ALTERNATIVE WARHEADS*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	1.029		1.044		-		1.044			

Remarks

C/CPFF-Competitive/Cost Plus Fixed Fee; Cont.-Continuing; S3-Systems Studies Simulation, Inc.; TMI-Tec Master, Inc.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	TBD	WSMR,:NM	-	4.347		5.171		-		5.171	Continuing	Continuing	Continuing
		Subtotal	-	4.347		5.171		-		5.171			

Remarks

TBD-To Be Determined; Cont.-Continuing; WSMR,NM-White Sands Missile Range, New Mexico

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	41.979		42.083		-		42.083			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	**PROJECT** 78G: *GMLRS ALTERNATIVE WARHEADS*

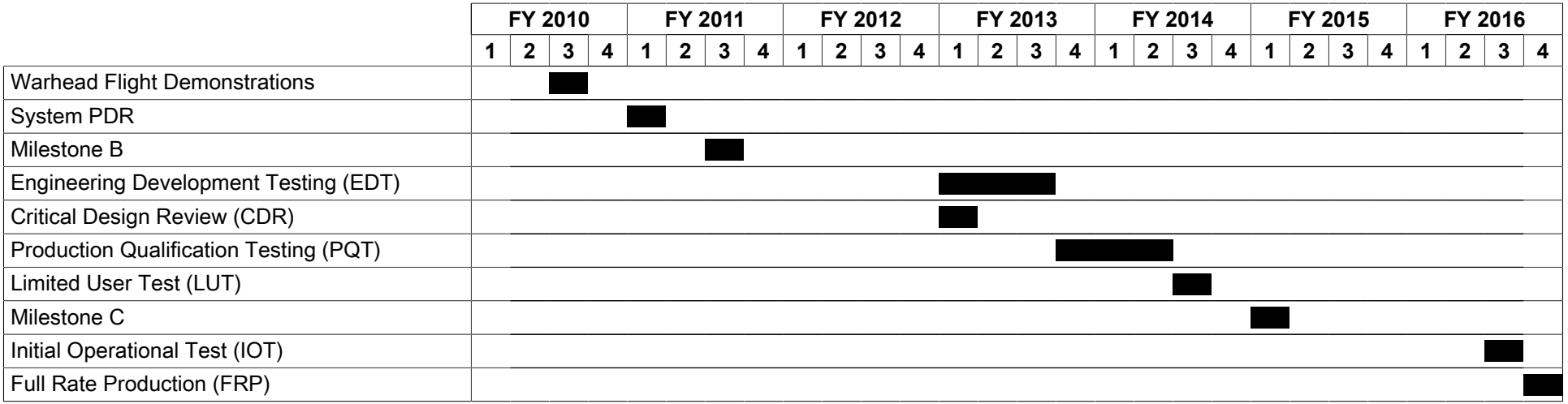

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0603778A: *MLRS PRODUCT IMPROVEMENT PROGRAM*	**PROJECT** 78G: *GMLRS ALTERNATIVE WARHEADS*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Warhead Flight Demonstrations	3	2010	3	2010
System PDR	1	2011	1	2011
Milestone B	3	2011	3	2011
Engineering Development Testing (EDT)	1	2013	3	2013
Critical Design Review (CDR)	1	2013	1	2013
Production Qualification Testing (PQT)	4	2013	2	2014
Limited User Test (LUT)	3	2014	3	2014
Milestone C	1	2015	1	2015
Initial Operational Test (IOT)	3	2016	3	2016
Full Rate Production (FRP)	4	2016	4	2016