

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	110.860	96.424	17.112	-	17.112	76.172	47.942	78.020	108.397	Continuing	Continuing
090: MLRS HIMARS	-	2.817	-	-	-	-	-	-	-	-	-	2.817
093: Multi-Launch Rocket System (MLRS)	-	46.810	40.006	14.118	-	14.118	0.990	1.007	1.020	1.228	Continuing	Continuing
784: Guided MLRS	-	7.640	15.309	-	-	-	-	-	-	-	-	22.949
78G: Gmlrs Alternative Warheads	-	53.593	39.852	-	-	-	-	-	-	-	-	93.445
DX8: HIMARS Product Improvement Program	-	-	1.257	2.994	-	2.994	6.182	6.935	-	-	-	17.368
DZ8: Long Range Precision Fires	-	-	-	-	-	-	69.000	40.000	77.000	107.169	-	293.169

The FY 2015 OCO Request will be submitted at a later date.

Note

Adjustments for FY2013-2014: Funding adjusted to reflect changes to FY2013-2014 activities.

Adjustments for FY2015: GMLRS Alternative Warhead (78G) and Guided MLRS (784) re-aligned to PE 025778A, Projects EG2 and EG3, respectively.

Other Adjustments 1: Reduction in cost due to the completion of mission efforts.

A. Mission Description and Budget Item Justification

Projects 090/DX8. 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 (BCT), Fires Brigades, 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 test, and integration efforts necessary for incorporation of advanced automotive, armor, armament, life cycle enhancements, system hardware and software technologies, including Common Operating Environment (COE) and Network Integrated Evaluation (NIE), obsolescence mitigation, reliability improvements 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 was deployed to Operation Iraqi Freedom (OIF) and is still supporting Operation Enduring Freedom (OEF) with great success by both US Army and Marine Corps units.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army				Date: March 2014		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				
Project 093. 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 BCT. 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 MFOM to include the Guided Multiple Launch Rocket System (GMLRS), engaging targets up to 60 kilometers (km). AFOM munitions are capable of engaging targets up to a range of 300 km. The MLRS product improvement program provides funding for research, development, test and integration efforts necessary for incorporation of advanced automotive, armament and system hardware and software technologies, including COE and NIE, obsolescence mitigation, reliability improvements, 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. Projects 784/78G. GMLRS rockets are surface-to-surface artillery rockets fired from the MLRS and HIMARS launchers. GMLRS rockets provide 24/7, all-weather precision fires to engage both area and point targets at short, medium, and long ranges. The GMLRS Program consists of three separate increments: GMLRS Dual Purpose Improved Conventional Munition (DPICM) cluster munition to engage area or imprecisely located targets; GMLRS Unitary utilizes a 200 lb high explosive warhead to engage point targets with limited collateral damage; and GMLRS Alternative Warhead (AW) is being developed as a non-cluster munition to replace GMLRS DPICM. GMLRS DPICM Production was terminated in response to the June 2008 Department of Defense (DoD) Cluster Munitions Policy. GMLRS Unitary is currently in full rate production. GMLRS AW is currently in the Engineering and Manufacturing Development (EMD) Phase and scheduled to enter full rate production in FY2015. The GMLRS AW rocket is 90% common with the Unitary variant. Project DZ8. The Army G-3/5/7 has directed that GMLRS Increment 4 change its name to Long Range Precision Fires (LRPF) to better reflect the solution as an Army Tactical Missile System (ATACMS) replacement versus a follow-on increment to the GMLRS program. No FY15 funds are requested.						
B. Program Change Summary (\$ in Millions)		FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget		143.005	110.576	90.607	-	90.607
Current President's Budget		110.860	96.424	17.112	-	17.112
Total Adjustments		-32.145	-14.152	-73.495	-	-73.495
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Adjustments to Budget Years		-32.145	-14.152	-55.413	-	-55.413
• Other Adjustments 1		-	-	-18.082	-	-18.082

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 090 / MLRS HIMARS			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
090: MLRS HIMARS	-	2.817	-	-	-	-	-	-	-	-	-	2.817
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
Funds realigned to new Project DX8 HIMARS Product Improvement Program.												
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 Brigades, 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, test and integration efforts necessary for sustainment, obsolescence mitigation, reliability improvements, incorporation of advanced automotive, armor, armament and system hardware and software technologies including Common Operating Environment (COE) and Network Integrated Evaluation (NIE) 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 was deployed to Operation Iraqi Freedom (OIF) and is still supporting 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 2013	FY 2014	FY 2015	
Title: MLRS Production Improvement Program-HIMARS									2.817	-	-	
									Articles: -	-	-	
Description: Improve system design and develop hardware and software integration with upcoming command and control initiatives to include the COE and the NIE. Perform technical assessments, concept studies, cost reduction, risk reduction, field issue resolution and required documentation concerning upgrades to enhanced command and control (C2), improved initialization, hardware and software obsolescence mitigation, tactical fire control, embedded training, launcher loader module electric drive, diagnostics/prognostics, alternate coupling, situational awareness, long range communication, automotive chassis life cycle enhancements and future munitions integration.												
FY 2013 Accomplishments:												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 090 / MLRS HIMARS				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2013	FY 2014	FY 2015
The focus of the FY2013 program was execution of enhancements to the fire control system and associated trainer updates as well as communications and battle command systems. Continued effort was required to maintain C4I/interoperability certification and network interoperability certification. Continued technical assessments and concept studies in the areas of automotive chassis life cycle enhancements, hardware/software technologies and improved transportability to support evolving mission requirements, technology insertion planning and obsolescence mitigation. Improved system design and developed hardware and software integration with upcoming command and control initiatives to include the COE and the NIE.												
Accomplishments/Planned Programs Subtotals										2.817	-	-
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
• C03000000: <i>HIMARS Launcher</i>	12.051	-	-	-	-	-	-	-	-	-	12.051	
• C67501000: <i>HIMARS Modifications</i>	6.068	6.105	6.073	-	6.073	3.318	2.621	3.411	6.495	Continuing	Continuing	
• 0603778A-DX8: <i>HIMARS Product Improvement Program</i>	-	1.258	3.046	-	3.046	6.278	7.032	-	0.003	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
HIMARS follow-on horizontal technology insertion efforts include automotive chassis life cycle enhancements, increased crew protection, enhanced C2, improved initialization, long range communications, fire control system obsolescence mitigation and associated enhancements to training devices.												
E. Performance Metrics												
N/A												

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM						Project (Number/Name) 090 / MLRS HIMARS			
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	Various	PFRMS Project Office : Redstone Arsenal, Alabama	9.470	0.102	Oct 2012	-		-		-		-	-	9.572	-
Subtotal			9.470	0.102		-		-		-		-	-	9.572	-
Remarks PFRMS - Precision Fires Rocket and Missile Systems															
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Battle Command	SS/CPFF	CECOM, PEO STRI, AMRDEC, Techrizon, LMMFC : Various	20.629	2.077	Feb 2013	-		-		-		-	-	22.706	-
Other Government Agencies (OGA)	Various	AMCOM, GSA, RSA : Various	17.902	0.206	Feb 2013	-		-		-		-	-	18.108	-
Subtotal			38.531	2.283		-		-		-		-	-	40.814	-
Remarks SS - Sole Source; CPFF - Cost Plus Fixed Fee; CECOM - US Army Communications Electronics Command; PEO STRI - Program Executive Office for Simulation, Training and Instrumentation; AMRDEC - Aviation and Missile Research, Development and Engineering Center; LMMFC - Lockheed Martin Missiles and Fire Control; AMCOM - US Army Aviation & Missile Life Cycle Management Command; GSA - General Services Administration; RSA - Redstone Arsenal Alabama															
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/CPFF	Camber Research, S3, TMI : Various	4.144	0.158	Feb 2013	-		-		-		-	-	4.302	-
Subtotal			4.144	0.158		-		-		-		-	-	4.302	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army													Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM					Project (Number/Name) 090 / MLRS HIMARS					
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks C/CPFF - Competitive Cost-Plus Fixed-Fee, S3 - Systems, Studies, Simulation, Incorporated; TMI - Tec Masters, Incorporated															
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	Various	Fort Hood TX, ATEC, APG MD, WSMR, RTC RSA. : Various	43.777	0.274	Feb 2013	-		-		-		-	-	44.051	-
Subtotal			43.777	0.274		-		-		-		-	-	44.051	-
Remarks ATEC - US Army Test and Evaluation Command; APG MD - Aberdeen Proving Grounds, Maryland; WSMR - White Sands Missile Range; RTC RSA - Redstone Test Center, Redstone Arsenal, Alabama															
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			95.922	2.817		-		-		-		-	-	98.739	-
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army																Date: March 2014			
Appropriation/Budget Activity 2040 / 7								R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM								Project (Number/Name) 090 / MLRS HIMARS			

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / <i>MLRS PRODUCT IMPROVEMENT PROGRAM</i>	Project (Number/Name) 090 / <i>MLRS HIMARS</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Central Technical Support Facility Certification	1	2006	4	2013
Enhanced Command and Control Development and Testing	1	2006	4	2013

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 093 / Multi-Launch Rocket System (MLRS)			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
093: Multi-Launch Rocket System (MLRS)	-	46.810	40.006	14.118	-	14.118	0.990	1.007	1.020	1.228	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
The Multiple Launch Rocket 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 complemented 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, test, and integration efforts necessary for incorporation of advanced automotive armament, and system hardware and software technologies, including Common Operating Environment (COE) and Network Integrated Evaluation (NIE), obsolescence mitigation, reliability improvements, 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 2013	FY 2014	FY 2015	
Title: MLRS Product Improvement Program									46.810	40.006	14.118	
									Articles: -	-	-	
Description: The MLRS product improvement program ensures compliance as defined in the Department of Defense (DoD) Information Technology Standards. Funding is provided to several government agency laboratories each fiscal year in support of this program. Support efforts also include Enhanced Command and Control (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, improve 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 2013 Accomplishments:												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army							Date: March 2014				
Appropriation/Budget Activity 2040 / 7			R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM			Project (Number/Name) 093 / Multi-Launch Rocket System (MLRS)					
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2013	FY 2014	FY 2015		
Continued execution of Improved Armored Cab (IAC) for crew protection effort through Critical Design Review (CDR). Initiated modification to fire control system to alleviate obsolescence issues, including Preliminary Design Review (PDR) of modified design. Continued to maintain C4I/interoperability certification and network interoperability certification. Continued to 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. Improved system design and developed hardware and software integration with upcoming C2 initiatives to include the COE and the NIE. FY 2014 Plans: Increase crew protection and Fire Control System Update (FCS-U) activities. Continue execution of development and qualification of the IAC for crew protection and blast protection. Conduct CDR and continue development and begin qualification test activities for the FCS-U effort to mitigate obsolescence. Additional activities include the continuation to maintain C4I/interoperability certification and network interoperability certification. Continue to improve system design and development hardware and software integration with upcoming C2 initiatives to include the COE and the NIE. FY 2015 Plans: Continue IAC and FCS-U activities. Close out all development tasks for IAC. Additional activities include FCS-U qualification tests, C4I/interoperability and network interoperability certification and maintenance. Redesign subsystems as required to mitigate obsolescence. Continue to improve system design and development hardware and software integration with upcoming C2 initiatives to include the COE and the NIE.											
Accomplishments/Planned Programs Subtotals							46.810	40.006	14.118		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• C67500000: MLRS Mods	2.466	11.571	10.494	-	10.494	23.500	37.889	38.200	37.718	Continuing	Continuing
• CA0265000: MLRS Mod Initial Spares (CA0265)	1.064	1.083	1.087	-	1.087	1.076	1.095	1.108	1.122	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The MLRS product improvement program conducts concept studies to support obsolescence mitigation, automotive updates, and hardware/software enhancements. Development efforts underway include Enhanced C2 and efforts supporting interoperability certifications, information assurance compliance, IAC, and mitigating obsolescence of the Fire Control System through the FCS-U effort. The IAC effort enhances the level of crew protection. A contract was awarded following a competitive bid process (full and open competition) to ensure best value for the government. The FCS-U is driven by the need to mitigate obsolete electronic components that are											

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / <i>MLRS PRODUCT IMPROVEMENT PROGRAM</i>	Project (Number/Name) 093 / <i>Multi-Launch Rocket System (MLRS)</i>
being sustained through life of type purchases. These purchased components will be exhausted, thus requiring an update to the design. This update to the design will preserve current and future capability of firing the complete set of MLRS family of munitions per the Operational Requirements Document (ORD). The FCS-U development effort began in FY13, utilizing the industrial Engineering Services contract that was previously sole source awarded. Contract efforts include finalizing design, testing, and qualification of the FCS-U with scheduled completion in FY15. Government activities to close out government efforts to continue in FY16. PDR occurred in FY13 and CDR will occur in 4Q FY14. <u>E. Performance Metrics</u> N/A		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 093 / Multi-Launch Rocket System (MLRS)					
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	Various	PFRMS Proj Ofc, Redstone Arsenal, Alabama : Redstone Arsenal, Alabama	6.581	0.468	Oct 2012	1.200		0.706	Oct 2014	-		0.706	Continuing	Continuing	Continuing
Subtotal			6.581	0.468		1.200		0.706		-		0.706	-	-	-
Remarks PFRMS - Precision Fires Rocket and Missile Systems															
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Government Agencies OGA	MIPR	FT SILL OK, CECOM-NJ AMRDEC-RSA AL, : various	16.245	-		-		-		-		-	Continuing	Continuing	Continuing
MLRS IAC	C/CPFF	Lockheed Martin : Grand Praire, TX	13.950	8.627	Nov 2012	5.761		2.160	Oct 2014	-		2.160	Continuing	Continuing	Continuing
MLRS FCS Development	SS/CR	Lockheed Martin : Grand Praire, TX	0.000	36.779	Mar 2013	26.244		9.840	Oct 2014	-		9.840	Continuing	Continuing	Continuing
Subtotal			30.195	45.406		32.005		12.000		-		12.000	-	-	-
Remarks C CPFF - Competitive Cost-Plus Fixed-Fee SS CR - Sole Source Cost AMRDEC - United States Army Aviation and Missile Research, Development, and Engineering Center RSA AL - Redstone Arsenal, Alabama Ft Sill OK - Oklahoma CECOM - United States Army Communication - Electronics Command MIPR - Military Interdepartmental Purchase Request LM - Lockheed Martin, Grand Praire, Texas															

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 093 / Multi-Launch Rocket System (MLRS)							
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	Various	Multiple : Multiple	4.010	-		0.400		0.424	Dec 2014	-		0.424	Continuing	Continuing	Continuing
Subtotal			4.010	-		0.400		0.424		-		0.424	-	-	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support, Joint Interoperability Test Certificate	MIPR	CTSF, Ft. Hood : Texas	2.387	0.936	Dec 2012	6.401		0.988	Dec 2014	-		0.988	Continuing	Continuing	Continuing
Subtotal			2.387	0.936		6.401		0.988		-		0.988	-	-	-
Remarks															
CTSF - Central Technical Support Facility MIPR - Military Interdepartmental Purchase Request															
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			43.173	46.810		40.006		14.118		-		14.118	-	-	-
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM			Project (Number/Name) 093 / Multi-Launch Rocket System (MLRS)

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Comd, Cntrl, Com, Comp, and Intell (C4I)/ Interop Cert Tests, Imp Oper Timeline																												
Software Interoperability Testing/Network Interoperability Testing/Certification																												
FCS-U Development																												
Fire Control System Update Production - Award 2Q FY16; 1st Del/install 2Q/FY17																												
Improved Armored Cab Development Award 3Q FY12; Testing Complete 3QFY15																												
Improved Armored Cab Production - 1st Delivery/Install 2Q FY16																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / <i>MLRS PRODUCT IMPROVEMENT PROGRAM</i>	Project (Number/Name) 093 / <i>Multi-Launch Rocket System (MLRS)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Comd, Cntrl, Com, Comp, and Intell (C4I)/Interop Cert Tests, Imp Oper Timeline	1	2010	4	2020
Software Interoperability Testing/Network Interoperability Testing/Certification	1	2010	4	2020
FCS-U Development	1	2013	1	2016
Fire Control System Update Production - Award 2Q FY16; 1st Del/install 2Q/FY17	2	2016	4	2020
Improved Armored Cab Development Award 3Q FY12; Testing Complete 3QFY15	3	2012	3	2015
Improved Armored Cab Production - 1st Delivery/Install 2Q FY16	2	2015	4	2020

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 784 / Guided MLRS			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
784: Guided MLRS	-	7.640	15.309	-	-	-	-	-	-	-	-	22.949
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
Beginning in FY2015, Guided Multiple Launch Rocket System (GMLRS) will have its own separate Program Element, 0205778A, to include Projects EG2 (GMLRS Alternative Warhead) and EG3 (Guided MLRS), previously under Program Element 0603778A Project Codes 78G and 784, respectively.												
A. Mission Description and Budget Item Justification												
The United States (U.S.) Army continues to explore ways to enhance Guided Multiple Launch Rocket System (GMLRS) Unitary rockets and common components and to mitigate obsolescence issues under the 784-Guided MLRS project code. The Army requested funding for the following 784 GMLRS Research, Development, Test and Evaluation (RDT&E) activities: (1) evaluation of enhanced operational capabilities to provide more flexibility across the target set to include increased range and flight performance; (2) investigation of potential life cycle cost savings through obsolescence initiatives; (3) development of enhancements to the Multiple Launch Rocket System (MLRS) common test equipment; and (4) evaluation and development of technologies to enhance overall product performance, survivability, and Insensitive Munitions (IM) compliance.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Assess and improve GMLRS rockets. Articles: Description: Funding is provided for the following efforts FY 2013 Accomplishments: Continued to assess and improve GMLRS rockets. FY 2014 Plans: Continue to seek improvements in rocket reliability, collateral damage, and effectiveness.									1.146	2.143	-	
									-	-	-	
Title: Conduct development engineering for IM program. Articles: Description: Funding is provided for the following efforts FY 2013 Accomplishments:									5.806	8.879	-	
									-	-	-	

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army									Date: March 2014		
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 784 / Guided MLRS			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015
Continued IM improvements investigation and procure items for initial test.											
FY 2014 Plans: Continue to procure test articles to qualify improvements to satisfy JCIDS requirements.											
Title: Investigate obsolescence/cost reduction opportunities/second source suppliers.									0.688	1.072	-
Articles:									-	-	-
Description: Funding is provided for the following efforts											
FY 2013 Accomplishments: Continued the development engineering; performed integration of multi-mode fuzes and potential alternate warhead solutions while assessing the industry to mitigate obsolescence and investigated cost reductions through alternate sources of procurement.											
FY 2014 Plans: Continue to design and integrate enhanced operational capability and flexibility across the target set, as well as investigate obsolescence issues and cost reduction initiatives.											
Title: Conduct System Test and Evaluation activities.									-	3.215	-
Articles:									-	-	-
Description: Funding is provided for the following efforts											
FY 2014 Plans: Conduct IM System testing.											
Accomplishments/Planned Programs Subtotals									7.640	15.309	-
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• GMLRS: GMLRS	214.288	273.025	127.145	-	127.145	194.775	167.250	190.934	90.792	Continuing	Continuing
• Guided MLRS Alternative	53.593	39.852	33.898	-	33.898	0.319	-	-	-	Continuing	Continuing
Warhead: Guided MLRS Alternative Warhead											
Remarks GMLRS Procurement funding includes C65404 and C65406.											

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / <i>MLRS PRODUCT IMPROVEMENT PROGRAM</i>	Project (Number/Name) 784 / <i>Guided MLRS</i>
<u>D. Acquisition Strategy</u> Project 784 is intended to support, investigate, and develop alternative material changes to improve the GMLRS family of munitions as they are identified by the material developer or combat developer. This project also supports IM activities to improve the overall posture of the system all the way down to component level. Future initiatives could include a missile modernization program to extend the shelf life of the GMLRS rocket. <u>E. Performance Metrics</u> N/A		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 784 / Guided MLRS					
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	TBD	PFRMS Project Office, : RSA	27.696	-		0.130	Oct 2013	-		-		-	-	27.826	-
Subtotal			27.696	-		0.130		-		-		-	-	27.826	-
Remarks TBD-To Be Determined; Cont.-Continuing; PFRMS - Precision Fires Rocket and Missile Systems; RSA-Redstone Arsenal, Alabama															
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Unitary Contracts/Multiple	SS/CPFF	LMMFCS : Dallas, TX	278.462	6.164	Dec 2012	14.712	Dec 2013	-		-		-	-	299.338	-
Other Government Agencies	TBD	AMCOM/AMRDEC, : RSA	77.986	-		-		-		-		-	-	77.986	-
Subtotal			356.448	6.164		14.712		-		-		-	-	377.324	-
Remarks 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)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/CPFF	Camber Research/ S3/TMI, : Alabama	20.684	-		-		-		-		-	-	20.684	-
Subtotal			20.684	-		-		-		-		-	-	20.684	-
Remarks C/CPFF-Cost/Cost Plus Fixed Fee; Cont.-Continuing; S3-Systems Studies Simulation, Inc.; TMI-Tec Masters, Inc.															

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army													Date: March 2014		
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM						Project (Number/Name) 784 / Guided MLRS			

Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	TBD	WSMR, : NM	107.991	1.476	Dec 2012	0.467		-		-		-	-	109.934	-
Subtotal			107.991	1.476		0.467		-		-		-	-	109.934	-

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

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	512.819	7.640		15.309		-		-		-	-	535.768	-

Remarks													
----------------	--	--	--	--	--	--	--	--	--	--	--	--	--

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM			Project (Number/Name) 784 / Guided MLRS

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Technical Assessment/ Concept, Survivability																												
Obsolescence/ Cost Reduction Opportunities and Second Source Suppliers																												
IM/ Enhanced Technology Improvements																												
ISD Safety Analysis and Qualification Plan																												
ISD Developmental Test																												
ISD Qualification Testing																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / <i>MLRS PRODUCT IMPROVEMENT PROGRAM</i>	Project (Number/Name) 784 / <i>Guided MLRS</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Technical Assessment/ Concept, Survivability	1	2011	4	2014
Obsolescence/ Cost Reduction Opportunities and Second Source Suppliers	1	2011	4	2014
IM/ Enhanced Technology Improvements	4	2010	4	2014
ISD Safety Analysis and Qualification Plan	3	2013	1	2014
ISD Developmental Test	4	2013	1	2014
ISD Qualification Testing	2	2014	4	2014

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 78G / Gmlrs Alternative Warheads			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
78G: Gmlrs Alternative Warheads	-	53.593	39.852	-	-	-	-	-	-	-	-	93.445
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
Beginning in FY2015, Guided Multiple Launch Rocket System (GMLRS) will have its own separate Program Element, 0205778A, to include Projects EG2 (GMLRS Alternative Warhead) and EG3 (Guided MLRS), previously under Program Element 0603778A Project Codes 78G and 784, respectively.												
A. Mission Description and Budget Item Justification												
The United States (U.S.) Army is funding the development of the Guided Multiple Launch Rocket System (GMLRS) Alternative Warhead (AW) increment under the 78G-GMLRS AW project code. GMLRS AW is being developed as a non-cluster munition to replace GMLRS Dual Purpose Improved Conventional Munitions (DPICM) and service the same area and imprecisely-located targets. GMLRS DPICM Production was terminated in response to the June 2008 Department of Defense (DoD) Cluster Munitions Policy.												
The GMLRS AW increment completed Milestone B (MS B) on February 19, 2012 and is currently in the Engineering and Manufacturing Development (EMD) Phase. The three-year EMD contract was awarded on March 30, 2012. Funding was requested in FY2013 for the second year of the EMD contract and for other government and contracted EMD activities to include engineering developmental testing and the Critical Design Review (CDR). GMLRS AW is scheduled for a combined Milestone C (MS C) and Full Rate Production (FRP) Decision in FY2015 and Initial Operational Capability (IOC) in FY2016.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Conduct Development Engineering, Design Component Testing, and Performance Analysis.									24.787	18.431	-	
									Articles: -	-	-	
Description: Funding is provided for the following efforts												
FY 2013 Accomplishments: Continued design optimization and analysis, Critical Design Review (CDR) in EMD Phase, procured test articles and conducted engineering testing.												
FY 2014 Plans:												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014	
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM	Project (Number/Name) 78G / Gmlrs Alternative Warheads	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014
Perform design optimization trade studies, qualification of manufacturing procedures, conduct Development Test/Operational testing.			
Title: Perform technical assessments and concept studies. Description: Funding is provided for the following efforts FY 2013 Accomplishments: Evaluated CDR. FY 2014 Plans: Perform system integration trade studies, assessment of Manufacturing Readiness Levels (MRL).		Articles: 13.532 -	10.063 -
Title: Prepare Milestone Documentation, Risk Reduction, and Program Reviews. Description: Funding is provided for the following efforts FY 2013 Accomplishments: IDR and CDR support. FY 2014 Plans: Assess EMD testing; begin milestone support documentation development.		Articles: 2.278 -	1.694 -
Title: Conduct System Test and Evaluation Activities. Description: Funding is provided for the following efforts FY 2013 Accomplishments: Engineering Development Testing (EDT). FY 2014 Plans: Engineering Production Qualification Testing (PQT) , Development Test/Operational Test (DT/OT), ground testing, and system Insensitive Munitions (IM) testing.		Articles: 12.996 -	9.664 -
Accomplishments/Planned Programs Subtotals		53.593	39.852

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army									Date: March 2014			
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 78G / Gmlrs Alternative Warheads				
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
• GMLRS: GMLRS	214.288	273.025	127.145	-	127.145	194.775	167.250	190.934	90.792	Continuing	Continuing	
• Guided MLRS: Guided MLRS	7.640	15.309	11.479	-	11.479	16.856	27.389	26.292	26.522	Continuing	Continuing	
• Long Range Precision Fires: Long Range Precision Fires	-	-	-	-	-	69.000	40.000	77.000	107.169	Continuing	Continuing	
Remarks												
GMLRS Procurement funding includes C65404 and C65406.												
D. Acquisition Strategy												
The GMLRS AW rocket is a product improved version of the current GMLRS DPICM rocket. During EMD, GMLRS AW will undergo further development, integration, and testing under a Firm Fixed Price (FFP) contract.												
E. Performance Metrics												
N/A												

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM						Project (Number/Name) 78G / Gmlrs Alternative Warheads			
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	TBD	PFRMS Project Office, : RSA	6.749	3.067	Oct 2012	4.267	Oct 2013	-		-		-	-	14.083	-
Subtotal			6.749	3.067		4.267		-		-		-	-	14.083	-
Remarks TBD-To Be Determined; Cont.-Continuing; PFRMS-Precision Fires Rocket and Missile Systems; RSA-Redstone Arsenal, Alabama															
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AWP Contracts (Multiple)	Various	ATK (Plymouth, MN) : LMMFCS (Dallas, TX), Systems Integrator	32.526	32.963	Dec 2012	22.665	Dec 2013	-		-		-	-	88.154	-
Other Government Agencies	TBD	AMCOM/AMRDEC, : RSA	14.166	5.579	Dec 2012	2.716	Dec 2013	-		-		-	-	22.461	-
Subtotal			46.692	38.542		25.381		-		-		-	-	110.615	-
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; ATK-Alliant Techsystems, Inc.; MN-Minnesota; LMMFCS-Lockheed Martin Missile and Fire Control System; TX-Texas															
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/CPFF	Camber Research/ S3/TMI, : Alabama	0.546	0.213	Dec 2012	0.171	Dec 2013	-		-		-	-	0.930	-
Subtotal			0.546	0.213		0.171		-		-		-	-	0.930	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army													Date: March 2014		
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) 78G / Gmlrs Alternative Warheads					
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks C/CPFF-Competitive/Cost Plus Fixed Fee; Cont.-Continuing; S3-Systems Studies Simulation, Inc.; TMI-Tec Master, Inc.															
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	TBD	WSMR, : NM	10.799	11.771	Dec 2012	10.033	Dec 2013	-		-		-	-	32.603	-
Subtotal			10.799	11.771		10.033		-		-		-	-	32.603	-
Remarks TBD-To Be Determined; Cont.-Continuing; WSMR,NM-White Sands Missile Range, New Mexico															
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			64.786	53.593		39.852		-		-		-	-	158.231	-
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 7		R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM			Project (Number/Name) 78G / Gmlrs Alternative Warheads

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Engineering Development Testing (EDT)																												
Critical Design Review (CDR)																												
Production Qualification Testing (PQT)																												
Development Test/Operational Test (DT/OT)																												
Insensitive Munitions (IM) Testing																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / <i>MLRS PRODUCT IMPROVEMENT PROGRAM</i>	Project (Number/Name) 78G / <i>Gmlrs Alternative Warheads</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Engineering Development Testing (EDT)	2	2013	4	2013
Critical Design Review (CDR)	4	2013	4	2013
Production Qualification Testing (PQT)	4	2013	3	2014
Development Test/Operational Test (DT/OT)	3	2014	3	2014
Insensitive Munitions (IM) Testing	1	2014	3	2014

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) DX8 / HIMARS Product Improvement Program			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DX8: HIMARS Product Improvement Program	-	-	1.257	2.994	-	2.994	6.182	6.935	-	-	-	17.368
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
Project DX8 HIMARS Product Improvement Program previously funded on Project 090 MLRS HIMARS.												
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 Brigades, 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, test and integration efforts necessary for incorporation of advanced automotive, armor, armament, life cycle enhancements, system hardware and software technologies, including Common Operating Environment (COE) and Network Integrated Evaluation (NIE), obsolescence mitigation, reliability improvements, 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 was deployed to Operation Iraqi Freedom (OIF) and is still supporting 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 2013	FY 2014	FY 2015	
Title: MLRS Production Improvement Program (PIP)-HIMARS PIP									-	1.257	2.994	
									Articles: -	-	-	
Description: Improve system design and develop hardware and software integration with upcoming command and control initiatives to include the COE and the NIE. Perform technical assessments, concept studies, cost reduction, risk reduction, field issue resolution and required documentation concerning upgrades to enhanced command and control (C2), improved initialization, hardware and software obsolescence mitigation, tactical fire control, embedded training, launcher loader module electric drive, diagnostics/prognostics, alternate coupling, situational awareness, long range communication, automotive chassis life cycle enhancements and future munitions integration.												
FY 2014 Plans:												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) DX8 / HIMARS Product Improvement Program				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2013	FY 2014	FY 2015
The focus of the FY2014 program is execution of enhancements to the fire control system and associated trainer updates as well as communications and battle command systems. Continued effort will be required to maintain C4I/interoperability certification and network interoperability certification. Continue technical assessments and concept studies in the areas of automotive chassis life cycle enhancements, hardware/software technologies and improved transportability to support evolving mission requirements, technology insertion planning and obsolescence mitigation. Improve system design and develop hardware and software integration with upcoming command and control initiatives to include the COE and the NIE. Begin analysis and development for integration of Fire Control System Update onto the HIMARS platform. FY 2015 Plans: The focus of the FY2015 program is execution of enhancements to the fire control system and associated trainer updates as well as communications and battle command systems. Continued effort will be required to maintain C4I/interoperability certification and network interoperability certification. Continue technical assessments and concept studies in the areas of automotive chassis life cycle enhancements, hardware/software technologies and improved transportability to support evolving mission requirements, technology insertion planning and obsolescence mitigation. Improve system design and develop hardware and software integration with upcoming command and control initiatives to include the COE and the NIE. Continue development for integration of Fire Control System Update onto the HIMARS platform.												
Accomplishments/Planned Programs Subtotals										-	1.257	2.994
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
• C03000: HIMARS Launcher	12.051	-	-	-	-	-	-	-	-	-	12.051	
• C67501: HIMARS Modifications	6.068	6.105	6.073	-	6.073	3.318	2.621	3.411	6.495	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
The HIMARS product improvement program conducts concept studies to support obsolescence mitigation, automotive updates, and hardware/software enhancements. Development efforts underway include Enhanced C2 and efforts supporting interoperability certifications, information assurance compliance, and mitigating obsolescence of the fire control system on the M142 HIMARS. HIMARS follow-on technology insertion efforts include automotive chassis life cycle enhancements, fire control system obsolescence mitigation and associated enhancements to training devices as improvements when applicable.												
E. Performance Metrics												
N/A												

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 7						R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM						Project (Number/Name) DX8 / HIMARS Product Improvement Program			
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	C/TBD	PFRMS Project Office, Redstone Arsenal, Alabama : Various	0.000	-		0.050	Oct 2013	0.137	Oct 2014	-		0.137	0.366	0.553	-
Subtotal			0.000	-		0.050		0.137		-		0.137	0.366	0.553	-
Remarks PFRMS - Precision Fires Rocket and Missile System; C - Competitive															
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Government Agencies (OGA)	C/TBD	AMCOM, GSA, RSA : Various	0.000	-		0.075	Oct 2013	0.195	Oct 2014	-		0.195	0.540	0.810	-
Battle Command	SS/CPFF	CECOM, PEO STRI, AMRDEC, CGI, LMMFC : Various	0.000	-		0.956	Oct 2013	2.210	Oct 2014	-		2.210	6.861	10.027	-
Subtotal			0.000	-		1.031		2.405		-		2.405	7.401	10.837	-
Remarks AMCOM - US Army Aviation & Missile Life Cycle Management Command; GSA - General Services Administration; RSA - Redstone Arsenal, Alabama; C - Competitive SS - Sole Source; CPFF - Cost Plus Fixed Fee; CECOM - US Army Communications Electronics Command; PEO STRI - Program Executive Office for Simulation, Training and Instrumentation; AMRDEC - Aviation and Missile Research, Development and Engineering Center; LMMFC - Lockheed Martin Missiles and Fire Control															
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Contract	C/TBD	Camber Research, S3, TMI : Various	0.000	-		0.063	Oct 2013	0.165	Oct 2014	-		0.165	0.454	0.682	-
Subtotal			0.000	-		0.063		0.165		-		0.165	0.454	0.682	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army													Date: March 2014		
Appropriation/Budget Activity 2040 / 7				R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM						Project (Number/Name) DX8 / HIMARS Product Improvement Program					
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks S3 - Systems, Studies, Simulation, Incorporated; TMI - Tec Masters, Incorporated															
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	C/TBD	Ft Hood, TX, ATEC, APG, MD, WSMR, RTC, RSA : Various	0.000	-		0.113	Oct 2013	0.287	Oct 2014	-		0.287	0.812	1.212	-
Subtotal			0.000	-		0.113		0.287		-		0.287	0.812	1.212	-
Remarks ATEC - US Army Test and Evaluation Command; APG MD - Aberdeen Proving Grounds, Maryland; WSMR - White Sands Missile Range; RTC RSA - Redstone Test Center, Redstone Arsenal, Alabama															
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		1.257		2.994		-		2.994	9.033	13.284	-
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 7			R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM		
			Project (Number/Name) DX8 / HIMARS Product Improvement Program		

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Central Technical Support Facility Certification																												
Enhanced Command and Control Development and Testing																												
FCS-U Critical Design Review (CDR)																												
FCS-U Qualification Testing																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0603778A / <i>MLRS PRODUCT IMPROVEMENT PROGRAM</i>	Project (Number/Name) DX8 / <i>HIMARS Product Improvement Program</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Central Technical Support Facility Certification	1	2014	4	2020
Enhanced Command and Control Development and Testing	1	2014	4	2020
FCS-U Critical Design Review (CDR)	4	2014	4	2014
FCS-U Qualification Testing	1	2015	1	2016

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0603778A / MLRS PRODUCT IMPROVEMENT PROGRAM				Project (Number/Name) DZ8 / Long Range Precision Fires			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DZ8: Long Range Precision Fires	-	-	-	-	-	-	69.000	40.000	77.000	107.169	-	293.169
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date. A. Mission Description and Budget Item Justification The Army G-3/5/7 has directed that Guided Multiple Launch Rocket System (GMLRS) Increment 4 change its name to Long-Range Precision Fires (LRPF) to better reflect the solution as an Army Tactical Missile System (ATACMS) replacement versus a follow-on increment to the GMLRS program. The United States Army is funding the development of the LRPF under the DZ8-LRPF project code. LRPF is being developed as a non-cluster munition to provide Joint Force Command with a 24/7 all weather 300 kilometer long-range fires capability without placing aircraft and crews at risk. The LRPF program currently has a Material Development Decision (MDD) scheduled for 1QFY14 with a tentative Milestone (MS) A scheduled for 2QFY15. Funding is being requested for in FY2016 to award Technology Maturation/Risk Reduction (TM/RR) contracts. LRPF will be developed via full and open competition carrying two or more contractors through the TM/RR Phase. LRPF is scheduled for a MS B in FY2018 and MS C in FY2021. B. Accomplishments/Planned Programs (\$ in Millions) N/A C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A E. Performance Metrics N/A												