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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Army	<b>DATE:</b> February 2012
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<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>							
2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>				PE 0203735A: <i>Combat Vehicle Improvement Programs</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	187.207	36.150	253.959	-	253.959	293.007	361.226	237.161	179.201	Continuing	Continuing
330: <i>ABRAMS TANK IMPROVE PROG</i>	93.655	9.642	97.278	-	97.278	105.919	132.551	109.160	90.106	Continuing	Continuing
371: <i>BRADLEY IMPROVE PROG</i>	93.552	12.231	82.586	-	82.586	70.790	56.663	57.179	40.539	Continuing	Continuing
DS5: <i>ARMORED MULTI PURPOSE VEHICLE (AMPV)</i>	-	14.277	74.095	-	74.095	116.298	172.012	70.822	48.556	Continuing	Continuing

**Note**  
FY2012 - Project DS5, Armored Multipurpose Vehicle (AMPV) congressional reduction -\$17.1M.

**A. Mission Description and Budget Item Justification**

The Army has completed a comprehensive Combat Vehicle (CV) modernization strategy, which includes the Abrams, Bradley and Armored Multi-Purpose Vehicle (AMPV) Platforms.

This Program Element (PE) corrects vehicle deficiencies identified in Army operations; continues technical system upgrades to include the integration of applicable technologies on ground systems; addresses needed evolutionary enhancements to tracked combat vehicles; and develops technology improvements which have application to or insertion opportunities across multiple Ground Combat Systems vehicles. This PE provides combat effectiveness and Operating and Support (O&S) cost reduction enhancements for the Abrams tanks and Bradley Fighting Vehicles through a series of product improvements.

This project funds improvements to the Abrams Family of Vehicles (FOV). The Abrams mission is to provide necessary firepower, mobility and survivability to overmatch all current and emerging enemy threats in achieving decisive dominant maneuver. The M1A2 SEP (current production model) refers to a System Enhancement Package incorporated on the tank in 1998, which upgraded the M1A2's computer systems and its night vision capabilities. Since that time, the M1A2 SEP has virtually reached its upper limits for space, weight, and power (SWaP). The Abrams tank is expected to be in service through 2045 and will be modernized in accordance with a revised capabilities document to: (1) posture the tank infrastructure to enable incremental growth as a hedge against other risks and contingencies, (2) maintain threat overmatch to deter aggression, project power and protect US interests and allies around the globe - especially with regards to the lessons of counterinsurgency learned during the tank's successful campaigns during Operation Iraqi Freedom, and (3) leverage the mature and relevant technology enhancements from the Army Research & Development Technology base. The Abrams tank must embark on a modernization effort in order to remain relevant and maintain threat overmatch capability. The objective is to maintain Survivability, Combat Overmatch and reduce O&S costs through an evolutionary approach with incremental development.

The M2/M3A3 Bradley Fighting Vehicle is at or exceeds Space, Weight, and Power-Cooling (SWaP-C) limitations. To host and restore lost platform capability, the Bradley Fighting Vehicle program shall execute a series of Engineering Change Proposals (ECPs) to support the current embedded systems and to facilitate integration

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>
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of technologies currently in development under other existing Programs of Record. The ECPs are not intended to exceed the operational capability outlined in current system requirements documents, but rather to ensure that the existing system performance is not further degraded and that Army mission equipment packages can be integrated on the Bradley platform.

The AMPV will provide the Heavy Brigade Combat Team (HBCT) with a replacement for the M113 Family of Vehicles (FOVs) that is more survivable and mobile to accomplish operational support missions across the full spectrum of conflict. The AMPV will be selected upon completion of the Analysis of Alternatives in FY 2013.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>
Previous President's Budget	204.481	53.307	252.334	-	252.334
Current President's Budget	187.207	36.150	253.959	-	253.959
Total Adjustments	-17.274	-17.157	1.625	-	1.625
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-17.274	-0.034			
• Adjustments to Budget Years	-	-	1.625	-	1.625
• Other Adjustments 1	-	-17.123	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0203735A: Combat Vehicle Improvement Programs				PROJECT 330: ABRAMS TANK IMPROVE PROG			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
330: ABRAMS TANK IMPROVE PROG	93.655	9.642	97.278	-	97.278	105.919	132.551	109.160	90.106	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
The Army is developing a comprehensive Combat Vehicle modernization strategy for the Abrams main battle tank. This strategy will focus on incrementally delivering capability to the warfighter to meet both near-term limitations as well as mitigating gaps and maintaining combat overmatch in the future. This effort was approved by the Army Acquisition Executive in 3Q FY 2011. The M1A2 SEPv2 improvements implemented through the Abrams ECP 1 Program will restore lost power generation, solve impending obsolescence issues and incorporate inbound technologies currently under development under other existing Programs. The Abrams ECP 1 technologies specified in the Acquisition Decision Memorandum will complete engineering development with a production contract award in FY 2016. Production Qualification testing, Live Fire Test & Evaluation (LFT&E), and a Limited User Test (LUT) will be completed by mid FY 2020.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2011	FY 2012	FY 2013
Title: Abrams Engineering Change Proposal (ECP) 1									89.875	-	79.355
Articles:									0		
Description: The M1A2 SEPv2 improvements implemented through the Abrams ECP 1 Program will restore lost power generation and distribution while incorporating inbound technologies currently under development under other existing Programs.											
FY 2011 Accomplishments:											
The Abrams Acquisition Decision Memorandum (ADM) for the Abrams ECP 1 was issued July 2011. Begin the contract development efforts and planning for the design integration efforts.											
FY 2013 Plans:											
The largest portion of sub-system integration will be executed in FY 2013 with the confirmation of the preliminary design at the Preliminary Design Review. This will quickly be followed by the Critical Design Review in 1Q FY 2014, finalizing the system baseline.											
Title: Program Management Office (PMO) Support									3.630	8.668	15.934
Articles:									0	0	
Description: Program Management Office Support includes Systems Engineering and Government and Contractor salaries, travel and other support costs required to effectively manage the program.											
FY 2011 Accomplishments:											

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army										DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0203735A: Combat Vehicle Improvement Programs				PROJECT 330: ABRAMS TANK IMPROVE PROG				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2011	FY 2012	FY 2013
Program Management Office Support includes the cost to develop the required documentation to support the Abrams ECP 1 Program.												
FY 2012 Plans: System Engineering and Program Management Office Support to effectively manage the program.												
FY 2013 Plans: Systems Engineering and Program Management Office Support to effectively manage the program.												
Title: Test & Evaluation										0.150	0.974	1.989
Articles:										0	0	
Description: Test and Evaluation												
FY 2011 Accomplishments: Test & Evaluation												
FY 2012 Plans: Test & Evaluation efforts to support system level test events and planning and development of test documentation												
FY 2013 Plans: Test & Evaluation efforts to support system level test events and planning and development of test documentation												
Accomplishments/Planned Programs Subtotals										93.655	9.642	97.278
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
• Abrams Upgrade Program: Abrams Upgrade Program	181.973	436.329	74.433		74.433					0.000	692.735	
• M1 Abrams Tank Mod (GA0700): Abrams Vehicle Modification	229.612	131.178	129.090		129.090		318.126	449.422	419.271	1,993.900	3,928.681	
• Spares (Initial) Abrams Upgrade: Spares (Initial) Abrams Upgrade		7.219								0.000	7.219	
D. Acquisition Strategy												
Abrams Engineering Change Proposal (ECP) 1: Development Contract - Sole Source, Cost Plus Incentive Fee (CPIF) Production Contract - Sole Source, Firm Fixed Price												

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Army		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>	<b>PROJECT</b> 330: <i>ABRAMS TANK IMPROVE PROG</i>

**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.

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2013 Army											<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>				<b>PROJECT</b> 330: <i>ABRAMS TANK IMPROVE PROG</i>					
<b>Product Development (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Abrams Engineering Change Proposal (ECP) 1	SS/CPIF	General Dynamics Land Systems: Sterling Heights, MI	89.875	-		79.355		-		79.355	0.000	169.230	0.000
<b>Subtotal</b>			89.875	-		79.355		-		79.355	0.000	169.230	0.000
<b>Support (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Management Office (PMO) Support	SS/LH	Various: Various	22.638	8.668		15.934		-		15.934	Continuing	Continuing	Continuing
<b>Subtotal</b>			22.638	8.668		15.934		-		15.934			
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Advance Technology Preparation and Testing	Various	Aberdeen Proving Ground; Yuma Proving Ground; White Sands Missile Range,; Various	8.226	0.974		1.989		-		1.989	Continuing	Continuing	Continuing
<b>Subtotal</b>			8.226	0.974		1.989		-		1.989			
			<b>Total Prior Years Cost</b>	<b>FY 2012</b>		<b>FY 2013 Base</b>		<b>FY 2013 OCO</b>		<b>FY 2013 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			120.739	9.642		97.278		-		97.278			
<b>Remarks</b>													

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Army			<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>		<b>PROJECT</b> 330: <i>ABRAMS TANK IMPROVE PROG</i>	

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	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
Abrams Engineering Change Proposal (ECP) 1																												
Acquisition Decision Memorandum (ADM)																												
Development Contract Award																												
Engineering & Manufacturing Development																												
Preliminary Design Review (PDR)																												
Critical Design Review (CDR)																												
Production Contract Award																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Army		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>	<b>PROJECT</b> 330: <i>ABRAMS TANK IMPROVE PROG</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Abrams Engineering Change Proposal (ECP) 1	4	2011	4	2011
Acquisition Decision Memorandum (ADM)	4	2011	4	2011
Development Contract Award	4	2012	4	2012
Engineering & Manufacturing Development	4	2012	2	2016
Preliminary Design Review (PDR)	2	2013	2	2013
Critical Design Review (CDR)	1	2014	1	2014
Production Contract Award	2	2016	2	2016



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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0203735A: Combat Vehicle Improvement Programs				PROJECT 371: BRADLEY IMPROVE PROG			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
371: BRADLEY IMPROVE PROG	93.552	12.231	82.586	-	82.586	70.790	56.663	57.179	40.539	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
The M2/M3A3 Bradley Fighting Vehicle is at or exceeds Space, Weight, and Power-Cooling (SWaP-C) limitations. To host and restore lost platform capability, the Bradley Fighting Vehicle program shall execute a series of Engineering Change Proposals (ECPs) to support the current embedded systems and to facilitate integration of technologies currently in development under other existing Programs of Record. The ECPs are not intended to exceed the operational capability outlined in current system requirements documents, but rather to ensure that the existing system performance is not further degraded and that Army mission equipment packages can be integrated on the Bradley platform.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: Bradley ECP Program  Articles:  Description: The Bradley Fighting Vehicle System (BFVS) improvements implemented through the Engineering Change Proposal (ECP) Program will focus on restoring lost platform capability to support Army inbound technologies and to facilitate integration of technologies currently in development under other existing Programs of Record.  FY 2011 Accomplishments: The Bradley ECP Acquisition Decision Memorandum (ADM) was approved in July 2011. Begin planning for design and integration of subsystems focusing on restoring space, weight and power limitations.  FY 2012 Plans: Award major contracts to begin design and integration of subsystems focusing on restoring space, weight and power limitations.  FY 2013 Plans: Continue design and integration of subsystems with the Preliminary Design Review. Qualification of subsystems leading towards Critical Design Review in 2nd Qtr FY 2014.								83.552	2.231	72.586	
								0	0		
Title: Support Costs  Articles:  Description: Government System Engineering and Program Management Support Costs. These funds cover the costs of Government salaries, travel and the facilities required to effectively manage the program.  FY 2011 Accomplishments:								10.000	10.000	10.000	
								0	0		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Army		<b>DATE:</b> February 2012	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>	<b>PROJECT</b> 371: <i>BRADLEY IMPROVE PROG</i>	

  

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
Government System Engineering and Program Management Support Costs. These funds cover the costs of Government salaries, travel and the facilities required to effectively manage the program.  <b>FY 2012 Plans:</b> Government System Engineering and Program Management Support costs. These funds cover the costs of government salaries, travel and the facilities required to effectively manage the program.  <b>FY 2013 Plans:</b> Government System Engineering and Program Management Support Costs. These funds cover the costs of Government salaries, travel and the facilities required to effectively manage the program.			
<b>Accomplishments/Planned Programs Subtotals</b>	93.552	12.231	82.586

  

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• GZ2400: <i>Bradley Program (MOD)</i>	202.987	250.710	148.193		148.193		202.628	246.388	210.843	122.800	1,566.724

  

<b>D. Acquisition Strategy</b>
Product Manager Bradley will execute an Engineering Change Proposal (ECP) reestablishing Space, Weight, Power and Cooling (SWAP-C) to facilitate integration of technologies being developed under existing Programs of Record (POR). The proposed ECP will restore lost capability, not to exceed operational envelopes outlined in current approved requirement documents. The ECP is scheduled to field in FY 2018 to address powerpack and electrical power upgrades, which will enable the vehicle to host Army directed inbound technologies with no further performance degradation to the vehicle. This ECP will be executed on a sole source cost plus incentive fee contract to the current platform Original Equipment Manufacturer.

  

<b>E. Performance Metrics</b>
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.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0203735A: Combat Vehicle Improvement Programs				PROJECT 371: BRADLEY IMPROVE PROG					
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Bradley Modernization Program	TBD	PMO:Warren, MI	115.087	-		-		-		-	0.000	115.087	0.000
Non Recurring Engineering	SS/CPIF	DRS:Huntsville, AL	-	-		4.773		-		4.773	9.309	14.082	0.000
Non Recurring Engineering	SS/CPIF	L3COM:Muskegon, MI	-	-		2.202		-		2.202	16.194	18.396	Continuing
Non Recurring Engineering	SS/FFP	Cummins:Columbus, IN	-	-		0.976		-		0.976	9.116	10.092	0.000
Non Recurring Engineering	SS/CPIF	BAE:Sterling Heights, MI	-	2.231		64.635		-		64.635	128.647	195.513	0.000
Subtotal			115.087	2.231		72.586		-		72.586	163.266	353.170	
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PMO	MIPR	PMO:Bradley ECP Program	16.000	4.000		4.000		-		4.000	16.000	40.000	Continuing
Government Engineering Support	MIPR	Various:Bradley ECP Program	24.000	6.000		6.000		-		6.000	24.000	60.000	Continuing
Subtotal			40.000	10.000		10.000		-		10.000	40.000	100.000	
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Test	MIPR	Various:Test Sites	-	-		-		-		-	21.905	21.905	0.000
Subtotal			-	-		-		-		-	21.905	21.905	0.000
			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			155.087	12.231		82.586		-		82.586	225.171	475.075	

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2013 Army						<b>DATE:</b> February 2012			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>			<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>			<b>PROJECT</b> 371: <i>BRADLEY IMPROVE PROG</i>			
	<b>Total Prior Years Cost</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Remarks</b>									

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Army			<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>		<b>PROJECT</b> 371: <i>BRADLEY IMPROVE PROG</i>	

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	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
Acquisition Decision Memorandum (ADM)																												
System Requirements Review																												
Preliminary Design Review																												
Critical Design Review																												
Component Qualification Testing																												
Contractor Vehicle Testing																												
Government Vehicle Testing																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Army			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>	<b>PROJECT</b> 371: <i>BRADLEY IMPROVE PROG</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Acquisition Decision Memorandum (ADM)	4	2011	4	2011
System Requirements Review	4	2012	4	2012
Preliminary Design Review	2	2013	2	2013
Critical Design Review	2	2014	2	2014
Component Qualification Testing	3	2014	2	2015
Contractor Vehicle Testing	2	2015	4	2016
Government Vehicle Testing	1	2017	4	2017

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Army								<b>DATE:</b> February 2012			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>				<b>PROJECT</b> DS5: <i>ARMORED MULTI PURPOSE VEHICLE (AMPV)</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
DS5: <i>ARMORED MULTI PURPOSE VEHICLE (AMPV)</i>	-	14.277	74.095	-	74.095	116.298	172.012	70.822	48.556	Continuing	Continuing
Quantity of RDT&E Articles											

**Note**

Not applicable for this item

**A. Mission Description and Budget Item Justification**

The Army has completed a comprehensive Combat Vehicle modernization strategy, which includes the Armored Multi-Purpose Vehicle (AMPV). The AMPV will provide the Heavy Brigade Combat Team (HBCT) with a replacement for the M113 Family of Vehicles (FOVs) that is more survivable and mobile to accomplish operational support missions across the full spectrum of conflict. The materiel solution for the AMPV program will be selected upon completion of the Analysis of Alternatives IN FY 2013.

**B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)**

	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> Armored Multi-Purpose Vehicle	-	14.277	74.095
<b>Articles:</b>		0	
<b>Description:</b> The Army has completed a comprehensive Combat Vehicle modernization strategy, which includes the Armored Multi-Purpose Vehicle (AMPV) as one of its top priorities. The AMPV will provide the Heavy Brigade Combat Team (HBCT) with a replacement for the M113 Family of Vehicles (FOVs) that is more survivable and mobile to accomplish operational support missions across the full spectrum of conflict. The AMPV will be selected upon completion of the Analysis of Alternatives in FY 2013.			
<b>FY 2012 Plans:</b> The Materiel Development Decision (MDD) approval is expected in February 2012 to allow for entry into the Materiel Solution Analysis Phase which authorizes the start of the Analysis of Alternatives (AoA) and organization of the program office.			
<b>FY 2013 Plans:</b> The results of the Analysis of Alternatives will determine the AMPV solution. Competitive source selection preparation to include the preparation of government-furnished material and technical data to support competition will occur in FY 2013.			
<b>Accomplishments/Planned Programs Subtotals</b>	-	14.277	74.095

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Army			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>	<b>PROJECT</b> DS5: <i>ARMORED MULTI PURPOSE VEHICLE (AMPV)</i>	

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• G80819: <i>Armored Multi Purpose Vehicle (AMPV)</i>		14.277	74.095		74.095		172.012	70.822	48.556	0.000	496.060

**D. Acquisition Strategy**

Acquisition planning includes modification of current capital assets. The Acquisition strategy will be determined upon completion of the Analysis of Alternatives when a Material Solution is chosen.

**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.



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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0203735A: Combat Vehicle Improvement Programs				PROJECT DS5: ARMORED MULTI PURPOSE VEHICLE (AMPV)				
Product Development (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total		
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AMPV Development	MIPR	OGAs:Various locations	-	8.263		14.853		-		14.853	0.000	23.116	0.000
Technical Data Package (TDP)	TBD	TBD:TBD	-	-		42.248		-		42.248	0.000	42.248	0.000
Subtotal			-	8.263		57.101		-		57.101	0.000	65.364	0.000
Remarks Armored Multi Purpose Vehicle Tech data and system level product development costs.													
Support (\$ in Millions)					FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total		
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AMPV Documentation	C/FFP	Camber:Michigan	-	1.000		1.016		-		1.016	0.000	2.016	0.000
Program Management Office (PMO)	MIPR	PMO:Warren, MI	-	1.790		2.973		-		2.973	0.000	4.763	0.000
Other Program Support	MIPR	OGAs:Various locations	-	3.224		13.005		-		13.005	0.000	16.229	0.000
Subtotal			-	6.014		16.994		-		16.994	0.000	23.008	0.000
Remarks AMPV Support Costs													
			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	14.277		74.095		-		74.095	0.000	88.372	0.000
Remarks													

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Army			<b>DATE:</b> February 2012		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>		<b>PROJECT</b> DS5: <i>ARMORED MULTI PURPOSE VEHICLE (AMPV)</i>	

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	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
Material Development Decision (MDD)																												
Analysis of Alternatives																												
Release RFP																												
Milestone B																												
EMD Contract Award																												
Preliminary Design Review																												
Critical Design Review																												
Production Qualification Test/Limited User Test																												
Milestone C																												
LRIP Contract Award																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Army			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0203735A: <i>Combat Vehicle Improvement Programs</i>	<b>PROJECT</b> DS5: <i>ARMORED MULTI PURPOSE VEHICLE (AMPV)</i>	

**Schedule Details**

<b>Events</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
Material Development Decision (MDD)	2	2012	2	2012
Analysis of Alternatives	2	2012	1	2013
Release RFP	4	2013	4	2013
Milestone B	1	2014	1	2014
EMD Contract Award	1	2014	1	2014
Preliminary Design Review	3	2014	3	2014
Critical Design Review	2	2015	2	2015
Production Qualification Test/Limited User Test	1	2016	4	2016
Milestone C	1	2017	1	2017
LRIP Contract Award	2	2017	2	2017