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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>							
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
Total Program Element	62.999	12.706	14.605	-	14.605	13.734	13.392	19.251	16.297	Continuing	Continuing
526: <i>MARINE ORIEN LOG EQ AD</i>	2.884	2.757	2.836	-	2.836	3.264	3.253	3.115	3.167	Continuing	Continuing
G11: <i>ADV ELEC ENERGY CON AD</i>	2.531	0.690	3.921	-	3.921	0.708	0.675	7.378	4.230	Continuing	Continuing
G14: <i>MATERIALS HANDLING EQUIPMENT - AD</i>	-	-	0.149	-	0.149	0.895	0.750	0.304	0.304	Continuing	Continuing
K39: <i>Field Sustainment Support AD</i>	18.237	2.998	2.970	-	2.970	3.526	3.571	3.107	3.159	Continuing	Continuing
K41: <i>WATER AND PETROLEUM DISTRIBUTION - AD</i>	2.493	4.187	2.706	-	2.706	3.118	3.104	2.972	3.022	Continuing	Continuing
K42: <i>MATERIEL SUSTAINMENT SUPPORT AD</i>	0.446	-	-	-	-	-	-	-	-	Continuing	Continuing
L04: <i>JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD</i>	36.408	-	-	-	-	-	-	-	-	Continuing	Continuing
VR8: <i>COMBAT SERVICE SUPPORT SYSTEMS - AD</i>	-	2.074	2.023	-	2.023	2.223	2.039	2.375	2.415	Continuing	Continuing

Note

Change Summary Explanation: Increase is due to PROJECT: G11 increase in F13.

A. Mission Description and Budget Item Justification

This program element supports advanced component development and prototypes of new and improved technologies for combat support and combat service support equipment essential to sustaining combat operations. Advancements in watercraft, bridging, electric power generators and batteries, potable water, material-handling, environmental control, shelter systems, cargo aerial delivery, field service systems, mortuary affairs equipment and petroleum equipment are necessary to improve safety and increase the tactical mobility, operational capability, lethality and survivability on the digital battlefield and to provide for greater sustainment while reducing the logistics support burden.

Increase from FY 2012 to FY 2013 reflects Project G11 Advance Electric Energy Con AD.

Joint Light Tactical Vehicles (JLTV): Funding supports the development and testing of the JLTV Family of Vehicles (FoV), which is being developed as a joint and international system between the Army and Marine Corps, and the Australian Army, participating under a Project Arrangement. The JLTV goal is a FoV with

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BA 4: Advanced Component Development & Prototypes (ACD&P)						
companion trailers capable of performing multiple mission roles that will be designed to provide protected, sustained, networked mobility for personnel and payloads across the full Range of Military Operations (RoMO). JLTV objectives include increased protection and performance over the current fleet; minimizing ownership costs by maximizing commonality, fuel efficiency and other means; and maintaining effective competition throughout the lifecycle. The JLTV FoV includes ten (10) sub-configurations (and companion trailers) in three payload categories. Commonality of components, maintenance procedures, training, etc., between vehicles and trailers is expected to be inherent in FoV solutions within and across Payload Categories to minimize FoV total ownership cost. Unique service requirements have been minimized.						
B. Program Change Summary (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget		80.490	19.509	10.850	-	10.850
Current President's Budget		62.999	12.706	14.605	-	14.605
Total Adjustments		-17.491	-6.803	3.755	-	3.755
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments 1		-17.491	-6.803	3.755	-	3.755

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT 526: MARINE ORIEN LOG EQ AD			
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
526: MARINE ORIEN LOG EQ AD	2.884	2.757	2.836	-	2.836	3.264	3.253	3.115	3.167	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Funding supports project advanced component study and development, and prototype of equipment and sub-systems supporting the Army Watercraft mission to provide critical capabilities in support of full-spectrum land combat operations by extending the Commander's available maneuver space into and throughout the littorals, inland waterways and near coastal regions. Army watercraft equipment supports the conduct of amphibious, riverine, logistics over the shore (LOTS), Joint logistics over the shore (JLOTS), inter and intratheater transport, movement and maneuver, mission command and sustainment as identified in DODD 5100-01, Functions of the Department of Defense and its Major Components. Army Watercraft exploit the inland waterway and littoral regions as waterborne maneuver and supply routes, conduct operations through littoral entry points, developed, undeveloped and austere access points, and in non-permissive and/or denied access scenarios. The Army uses a spectrum of lighterage and floating craft, from heavy sustainment ocean going landing craft capable of intratheater and ship to shore transport and undeveloped beach or harbor access, to ocean-going and harbor utility tug boats and barge derricks for transport and denied port/salvage operations, and modular causeway systems to support LOTS/JLOTS.

FY13 funding will be used to support the maturation of equipment, systems and sub-systems into Army Watercraft for the purposes of improved performance, energy efficiency, environmental and regulatory compliance, and to enhance the seaworthiness, safety, survivability, supportability and reliability of existing systems. Funded efforts will advance critical gaps in these areas for the current fleet, while at the same time studying, developing, and testing emergent technologies in a manner to support future acquisitions and future fleet planning as those areas are to be imminently informed by the recently chartered and upcoming Army Watercraft Systems Board of Directors (AWS BOD).

Fleet wide funding requirements will complete core requirements for development, prototype operational testing and military unit assessment of externally mounted accommodation units in support of crew and supercargo berthing, integration of escalation of force (EoF) force protection enhancements, to include both lethal and non-lethal, development of Battle Command on the Move (BCOTM) and Common Operating Picture (COP)/interoperability aspects of existing C4ISR, enhancement of developing environmental and energy efficiency technologies to ensure continued compliance with increasingly stringent regulatory requirements, and study/development of digital technology integration in the areas of near and real time logistics management, area situational awareness, trend analysis, Condition Based Maintenance Plus (CBM+), equipment monitoring and diagnostics/prognostics and related functional areas, as well as study and development of Terminal Operations (ship to shore) and At Sea Transfer.

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

	FY 2011	FY 2012	FY 2013
Title: ARMY WATERCRAFT JETA-SPOD	2.119	-	-
Articles:	0		
Description: Funding is provided for the following effort			

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev		PROJECT 526: MARINE ORIEN LOG EQ AD	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: JETA-SPOD					
Title: Watercraft - Vessel to Shore Bridging (VSB) Study/Development Articles: Description: Funding is provided for the following effort FY 2012 Plans: VSB - Vessel to Shore Bridging Study/Development FY 2013 Plans: VSB - Vessel to Shore Bridging Study/Development			-	0.505 0	0.230
Title: Watercraft - Landing Craft Mechanized (LCM 8) Study/Development Articles: Description: Landing Craft Mechanized 8 FY 2012 Plans: LCM 8 - Landing Craft Mechanized 8 Study/Development FY 2013 Plans: Watercraft - Landing Craft Mechanized (LCM-8) Study/Development			-	0.461 0	0.150
Title: Watercraft - Heavy Lift Vessel Study/Development Articles: Description: AWS Heavy Lift Vessel FY 2012 Plans: Heavy Lift Vessel Study/Development FY 2013 Plans: Heavy Sustainment Lift Study/Development			-	0.461 0	0.200
Title: Watercraft - People Pods Study/Development Articles: Description: AWS - People Pods			-	0.461 0	0.300

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2011	FY 2012	FY 2013
FY 2012 Plans: People Pods Study/Development					
FY 2013 Plans: Prototype operational testing and military unit assessment of crew and supercargo accomodations and berthing units.					
Title: Watercraft - Force Protection Study/Development Description: AWS - Force Protection FY 2012 Plans: Force Protection Study/Development FY 2013 Plans: Force Protection; lethal and non-lethal Escalation of Force (EoF) Study/Development			Articles: - 0	0.461 0	0.350
Title: Watercraft - C4ISR Study/Development Description: AWS - C4ISR FY 2012 Plans: C4ISR Study/Development FY 2013 Plans: C4ISR interoperability, Common Operating Picture (COP), and Battle Command on the Move (BCOTM) Study/Development.			Articles: - 0	0.276 0	0.150
Title: ARMY WATERCRAFT PROGRAM SUPPORT Description: Funding is provided for the following effort FY 2011 Accomplishments: Continues Program Support FY 2012 Plans: Future Program Support FY 2013 Plans:			Articles: 0.265 0	0.132 0	0.156

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev	PROJECT 526: MARINE ORIEN LOG EQ AD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2011	FY 2012	FY 2013
Future Program Support					
Title: WATERCRAFT MARKET SURVEYS AND BUSINESS ANALYSIS Description: Funding is provided for the following effort FY 2011 Accomplishments: Continues Watercraft market surveys and business analysis FY 2013 Plans: Continues Watercraft market surveys and business analysis			Articles: 0.500 0	-	0.150
Title: Watercraft - Riverine Craft Description: Riverine Craft Study/Development FY 2013 Plans: Riverine Craft Study/Development			-	-	0.150
Title: Watercraft - Tug and Barge Description: Tug and Barge Study/Development FY 2013 Plans: Tug and Barge Study/Development			-	-	0.150
Title: Watercraft - Terminal Operations Description: Terminal Operations and Ship to Shore Study/Development FY 2013 Plans: Terminal Operations and Ship to Shore Study/Development			-	-	0.200
Title: Watercraft - Port/Harbor Utility Description: Port/Harbor Utility and Light Landing Craft Study/Development FY 2013 Plans: Port/Harbor Utility and Light Landing Craft Study/Development			-	-	0.150
Title: Watercraft - Amphibious Craft			-	-	0.100

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Amphibious Craft Study/Development FY 2013 Plans: Amphibious Craft Study/Development			
Title: Watercraft - Digital Integration Description: Digital Integration Study/Development FY 2013 Plans: Digital integration of logistics management, equipment monitoring, diagnostics/prognostics, trend analysis and related functional area Study/Development	-	-	0.150
Title: Watercraft - At Sea Transfer Description: At Sea Transfer Study/Development FY 2013 Plans: At Sea Transfer Study/Development	-	-	0.100
Title: Watercraft - Energy Efficiency and Environmental Compliance Description: Energy Efficiency and Environmental Compliance FY 2013 Plans: Adaptation of developing energy efficiency and environmental compliance technologies IAW evolving regulatory requirements.	-	-	0.150
Accomplishments/Planned Programs Subtotals	2.884	2.757	2.836

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 Complete</u> <u>Total Cost</u>
• Army Watercraft Systems: <i>Modification of In-Service Equipment</i>	137.459	72.271	59.141		59.141		91.990	84.325	63.497	Continuing Continuing

D. Acquisition Strategy N/A

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E. Performance Metrics

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

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT 526: MARINE ORIEN LOG EQ AD					
Management Services (\$ 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
Program Support	SS/BA	PM Force Projection:TACOM	3.129	0.132		0.156		-		0.156	Continuing	Continuing	Continuing
Subtotal			3.129	0.132		0.156		-		0.156			
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
Watercraft market surveys/ business analysis	Various	TBD:TBD	1.208	-		0.150		-		0.150	Continuing	Continuing	Continuing
JETA-SPOD-Vessel to Shore Bridging (VSB)	Various	ERDC,:Washington, DC	11.665	-		-		-		-	Continuing	Continuing	Continuing
C4ISR	C/FFPLOE	SPAWAR:Charleston, SC	-	0.276		0.150		-		0.150	Continuing	Continuing	0.000
Force Protection	C/FFPLOE	Carderock:Crane, IN	-	0.461		0.350		-		0.350	Continuing	Continuing	0.000
Heavy Lift Vessel	C/FFPLOE	TBD:TBD	-	0.461		0.200		-		0.200	Continuing	Continuing	0.000
LCM 8	C/FFPLOE	TBD:TBD	-	0.461		0.150		-		0.150	0.000	0.611	0.000
People Pods	C/FFPLOE	PM Force Sustainment Systems:Natick, MA	-	0.461		0.300		-		0.300	Continuing	Continuing	0.000
VSB	C/FFPLOE	TBD:TBD	-	0.505		0.230		-		0.230	0.000	0.735	0.000
Watercraft - Riverine Craft	C/FFPLOE	TBD:TBD	-	-		0.150		-		0.150	0.000	0.150	0.000
Watercraft - Tug and Barge	C/FFPLOE	TBD:TBD	-	-		0.150		-		0.150	0.000	0.150	0.000
Watercraft - Terminal Operations	C/FFPLOE	TBD:TBD	-	-		0.200		-		0.200	0.000	0.200	0.000
Watercraft - Port/Harbor Utility	C/FFPLOE	TBD:TBD	-	-		0.150		-		0.150	0.000	0.150	0.000
Watercraft - Amphibious Craft	C/FFPLOE	TBD:TBD	-	-		0.100		-		0.100	0.000	0.100	0.000
Watercraft - Digital Integration	C/FFPLOE	SPAWAR:Charleston, SC	-	-		0.150		-		0.150	0.000	0.150	0.000
Watercraft - Energy Efficiency and Environmental Compliance	C/FFPLOE	Various:Various	-	-		0.150		-		0.150	0.000	0.150	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army											DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>				PROJECT 526: <i>MARINE ORIEN LOG EQ AD</i>					

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
Watercraft - At Sea Transfer	C/FFPLOE	TBD:TBD	-	-		0.100		-		0.100	0.000	0.100	0.000
Subtotal			12.873	2.625		2.680		-		2.680			

	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	16.002	2.757		2.836		-		2.836			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT 526: <i>MARINE ORIEN LOG EQ AD</i>
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	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
Riverine Craft Study/Development																												
Tug and Barge																												
Terminal Operations																												
Port/Harbor Utility																												
Amphibious Craft																												
Digital integration																												
At Sea Transfer																												
Energy Efficiency and Environmental Compliance																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT 526: <i>MARINE ORIEN LOG EQ AD</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Riverine Craft Study/Development	1	2013	4	2017
Tug and Barge	1	2013	4	2017
Terminal Operations	1	2013	4	2017
Port/Harbor Utility	1	2013	4	2017
Amphibious Craft	1	2013	4	2017
Digital integration	1	2013	4	2017
At Sea Transfer	1	2013	4	2017
Energy Efficiency and Environmental Compliance	1	2013	4	2017

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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0603804A: Logistics and Engineer Equipment - Adv Dev				G11: ADV ELEC ENERGY CON AD			
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
G11: ADV ELEC ENERGY CON AD	2.531	0.690	3.921	-	3.921	0.708	0.675	7.378	4.230	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not Applicable for this item.

A. Mission Description and Budget Item Justification

The Mobile Electric Power (MEP) program was established by the Department of Defense to develop modernized, standard families of mobile electric power sources and power distribution systems for all Services throughout the Department of Defense. This Project Office derives concept and technology developments that will improve the performance, mobility, readiness and survivability of the next generation of tactical power sources in support of all Services. It supports initiatives that are essential to the development and fielding of modernized MEP sources from Watts to Megawatts level that comply with environmental statutes and provide noise and signature-suppressed, energy-efficient, lightweight, deployable and reliable equipment. FY12-13 will fund test and evaluation of technologies for Large Advanced Mobile Power Sources (LAMPS), STEP, alternative energy, and Intelligent Power Distribution Systems.

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

	FY 2011	FY 2012	FY 2013
Title: Contract Activity Articles: Description: Continue development of technology supporting the Large Advanced Mobile Power Sources (LAMPS) program, the Small Tactical Electric Power (STEP) programs, Intelligent Power Management and Distribution Systems (IPMDS), and Alternative Energy Sources. FY 2011 Accomplishments: Procured various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts included an improved 1 kW JP-8 fueled generator, hybrid/alternative energy power sources, and intelligent power distribution/management systems. FY 2013 Plans: Procure various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts will include STEP components, hybrid/alternative energy power sources, and intelligent power distribution/management systems.	0.700 0	-	2.409
Title: Government System Test and Evaluation Articles:	0.470 0	0.080 0	0.291

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
<p>Description: Continue development of technology supporting the Small Tactical Electric Power (STEP) programs, Intelligent Power Management and Distribution Systems (IPMDS), and Alternative Energy Sources.</p> <p>FY 2011 Accomplishments: Evaluated and tested various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts included performance testing of an improved 1 kW JP-8 fueled generator, safety testing for hybrid/alternative energy power sources, and performance tests of intelligent power distribution/management systems.</p> <p>FY 2012 Plans: Evaluation and testing of various technologies related to tactical electric power and power distribution/management across the DoD power spectrum. Efforts will be aimed at resolving technology gaps to meet Army User requirements. Efforts will support the Tactical Electric Power Capabilities Production Document (TEP CPD). Specific efforts will include performance testing of small generator sets, hybrid/alternative energy power sources, and intelligent power distribution/management systems. Also supports new equipment demonstrations at Network Integration Evaluation (NIE) 12.2 and 13.1.</p> <p>FY 2013 Plans: Continue evaluation and testing of various technologies related to tactical electric power and power distribution and management across the DoD power spectrum. Efforts will be aimed at resolving technology gaps to meet Army User requirements. Efforts will support the Tactical Electric Power Capabilities Production Document (TEP CPD). Specific efforts will include performance testing of small generator sets, hybrid/alternative energy power sources, and intelligent power distribution/management systems. Program also supports Rapid Equipping Force deployments of alternative energy systems in support of Village Stability Operation.</p>				
<p>Title: Other Contracts and Gov't agencies</p> <p>Articles:</p> <p>Description: Continue development of technology supporting the Large Advanced Mobile Power Sources (LAMPS) program, the Small Tactical Electric Power (STEP) programs, Intelligent Power Management and Distribution Systems (IPMDS), and Alternative Energy Sources.</p> <p>FY 2011 Accomplishments: Continued evaluation, in-house testing, and procurement documentation preparation supporting various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts included developing test plans and analyzing data for a 1 kW JP-8 fueled generator, hybrid/alternative energy power sources, and intelligent power distribution/management systems.</p> <p>FY 2012 Plans:</p>		1.125 0	0.506 0	0.994

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Evaluation and testing of various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts will include development of STEP, and evaluation of hybrid/alternative energy power sources and intelligent power distribution/management systems. FY 2013 Plans: Evaluation and testing of various technologies related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts will include development of STEP, and evaluation of hybrid/alternative energy power sources and intelligent power distribution/management systems.				
Title: Government Program Management Articles: Description: Continue development of technology supporting the Large Advanced Mobile Power Sources (LAMPS) program, the Small Tactical Electric Power (STEP) programs, Intelligent Power Management and Distribution Systems (IPMDS), and Alternative Energy Sources. FY 2011 Accomplishments: Provided oversight, evaluation and management of various technology projects and testing related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Specific efforts were directed towards a 1 kW JP-8 fueled generator, hybrid/alternative energy power sources, and intelligent power distribution/management systems. FY 2012 Plans: Oversight and management of various technology projects related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Efforts will be aimed at resolving technology gaps to meet Army User requirements. Efforts will support the STEP program and the Tactical Electric Power Capabilities Production Document (TEP CPD). Specific efforts will include development of large sets, hybrid/alternative energy power sources, and intelligent power distribution/management systems. FY 2013 Plans: Oversight and management of various technology projects related to Tactical Electric Power and power distribution/management across the DoD power spectrum. Efforts will be aimed at resolving technology gaps to meet Army User requirements. Efforts will support the STEP program and the Tactical Electric Power Capabilities Production Document (TEP CPD). Specific efforts will include hybrid/alternative energy power sources, and intelligent power distribution/management systems.		0.236 0	0.104 0	0.227
Accomplishments/Planned Programs Subtotals		2.531	0.690	3.921

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT G11: ADV ELEC ENERGY CON AD			
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
• 654804.194: Logistics and Engineer Equipment - Eng Dev 194	6.919	11.188	9.692		9.692		8.479	7.675	4.637	Continuing	Continuing
• MA9800: OPA 3, Generators and Associated Eq.	191.915	67.897	60.302		60.302		178.107	244.083	231.742	Continuing	Continuing
D. Acquisition Strategy											
Complete advanced development pre-milestone B technology assessments and analysis, and transition of tactical electric power and power distribution products to Engineering and Manufacturing Development (EMD) phase (Milestone B) and subsequent transition to production (Milestone C).											
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				R-1 ITEM NOMENCLATURE				PROJECT					
2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0603804A: Logistics and Engineer Equipment - Adv Dev				G11: ADV ELEC ENERGY CON AD					
Management Services (\$ 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
Step Components	TBD	PM-MEP:Fort Belvoir, VA	0.176	0.060		0.100		-		0.100	Continuing	Continuing	0.000
LAMPS Components	TBD	PM-MEP:Fort Belvoir, VA	0.089	-		-		-		-	Continuing	Continuing	Continuing
Alternative Energy	TBD	PM MEP:Ft. Belvoir, VA	0.125	0.022		0.067		-		0.067	Continuing	Continuing	Continuing
Power Distribution/ Management	TBD	PM MEP:Ft. Belvoir, VA	0.103	0.022		0.060		-		0.060	Continuing	Continuing	Continuing
Small Business Innovative Research/Small Business Technology Transfer Programs	TBD	TBD:TBD	0.066	-		-		-		-	Continuing	Continuing	0.000
Subtotal			0.559	0.104		0.227		-		0.227			
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
STEP Components	TBD	CERDEC:Fort Belvor, VA	0.590	-		1.500		-		1.500	Continuing	Continuing	Continuing
LAMPS Components	TBD	CERDEC:Fort Belvoir, VA	0.140	-		-		-		-	Continuing	Continuing	Continuing
AMMPS Components	TBD	CERDEC:Fort Belvoir, VA	0.001	-		-		-		-	0.000	0.001	0.000
Alternative Energy	TBD	Multiple Vendors:TBD	0.815	-		0.500		-		0.500	Continuing	Continuing	Continuing
Power Distribution/ Management	TBD	CERDEC:Fort Belvoir, VA	0.250	-		0.409		-		0.409	Continuing	Continuing	Continuing
Subtotal			1.796	-		2.409		-		2.409			

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT G11: ADV ELEC ENERGY CON AD					
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
STEP Components	TBD	CERDEC:Fort Belvoir, VA	0.300	0.106		0.500		-		0.500	Continuing	Continuing	Continuing
AMMPS Components	TBD	CERDEC:Fort Belvoir, VA	0.059	-		-		-		-	0.000	0.059	0.000
LAMPS Components	TBD	CERDEC:Fort Belvoir, VA	0.300	-		-		-		-	Continuing	Continuing	Continuing
Alternative Energy	TBD	CERDEC:Fort Belvoir, VA	0.465	0.200		0.300		-		0.300	Continuing	Continuing	Continuing
Power Distribution/ Management	TBD	CERDEC:Fort Belvoir, VA	0.474	0.200		0.194		-		0.194	Continuing	Continuing	Continuing
Subtotal			1.598	0.506		0.994		-		0.994			
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
STEP Components	TBD	CERDEC:Fort Belvoir, VA	0.150	0.030		0.200		-		0.200	Continuing	Continuing	Continuing
Alternative Energy	TBD	CERDEC:Fort Belvoir, VA	0.115	0.050		0.050		-		0.050	Continuing	Continuing	Continuing
Power Distribution/ Management	TBD	CERDEC:Fort Belvoir, VA	0.306	-		0.041		-		0.041	Continuing	Continuing	Continuing
Subtotal			0.571	0.080		0.291		-		0.291			
			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			4.524	0.690		3.921		-		3.921			
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army			DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>		PROJECT G11: <i>ADV ELEC ENERGY CON AD</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
Complete Proof of Principal Prototype (Commercial Components)				■																								
Complete Test and Evaluation-STEP																■												
Transfer to Engineering and Manufacturing Development-STEP																■												
Develop Proof of Principle Prototypes--AEP				■																								
Complete Proof of Principle Prototype (Commercial Components)--AEP								■																				
Complete Test and Evaluation--AEP																							■					
Develop Proof of Principle Prototypes-IPD/M			■																									
Complete Proof of Principle Prototype (Commercial Components)-IPD/M				■																								
Complete Test and Evaluation-IPD/M								■																				
Transfer to Engineering and Manufacturing Development-IPD/M																							■					

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT G11: <i>ADV ELEC ENERGY CON AD</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Complete Proof of Principal Prototype (Commercial Components)	4	2011	4	2011
Complete Test and Evaluation-STEP	4	2014	4	2014
Transfer to Engineering and Manufacturing Development-STEP	4	2014	4	2014
Develop Proof of Principle Prototypes--AEP	4	2011	4	2011
Complete Proof of Principle Prototype (Commercial Components)--AEP	4	2012	4	2012
Complete Test and Evaluation--AEP	4	2016	4	2016
Develop Proof of Principle Prototypes-IPD/M	3	2011	3	2011
Complete Proof of Principle Prototype (Commercial Components)-IPD/M	4	2011	1	2012
Complete Test and Evaluation-IPD/M	3	2012	3	2012
Transfer to Engineering and Manufacturing Development-IPD/M	2	2015	2	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>				PROJECT G14: <i>MATERIALS HANDLING EQUIPMENT - AD</i>			
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
G14: <i>MATERIALS HANDLING EQUIPMENT - AD</i>	-	-	0.149	-	0.149	0.895	0.750	0.304	0.304	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports component development and Material Handling Equipment (MHE) prototyping and stays abreast of emerging and available technologies to be integrated into military MHE to address identified capability gaps and warfighter objectives. This project enables the development of selected technologies and transition to system integration and development or production of MHE products. MHE includes Rough Terrain Forklifts, Rough Terrain Container Handlers and Cranes, as well as ancillary MHE equipment, to support distribution of critical supplies in the theater of operations. FY13 funding will allow innovative maintenance support technologies to be investigated with the goal to improve diagnostic tasks and to reduce safety and environmental hazards when performing maintenance on tactical MHE in the field.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
Title: Field Maintenance Aids for MHE	-	-	0.149
Description: Field Maintenance Aids for MHE			
FY 2013 Plans: Evaluate the efficacy of proposed devices to improve diagnostic tasks and to prevent spillage of hazardous materials.			
Accomplishments/Planned Programs Subtotals	-	-	0.149

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
• RDT&E: <i>0604804A, Logistics and Engineer Equipment, Engineering Development (H14)</i>	0.920	1.055	1.415		1.415		0.512	0.943	0.964	Continuing	Continuing

D. Acquisition Strategy

Procure prototype test items for engineering tests and demonstrations with subject matter experts. Conduct trades between cost and improved maintainability and environmental risk reduction. Process engineering change proposals, update technical manuals and training materials, and prepare supporting acquisition documents and data to procure new training aids.

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT G14: <i>MATERIALS HANDLING EQUIPMENT - AD</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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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army											DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT G14: MATERIALS HANDLING EQUIPMENT - AD					
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
Field Maintenance Aids for MHE	TBD	Kalmar RT Center:Cibolo, TX	-	-		0.087		-		0.087	0.000	0.087	0.000
Subtotal			-	-		0.087		-		0.087	0.000	0.087	0.000
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
Field Maintenance Aids for MHE	MIPR	TARDEC:Warren, MI	-	-		0.022		-		0.022	0.000	0.022	0.000
Subtotal			-	-		0.022		-		0.022	0.000	0.022	0.000
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
Field Maintenance Aids for MHE	TBD	TBD:TBD	-	-		0.040		-		0.040	Continuing	Continuing	0.000
Subtotal			-	-		0.040		-		0.040			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			-	-		0.149		-		0.149			0.000
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army																DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>								R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>								PROJECT G14: <i>MATERIALS HANDLING EQUIPMENT - AD</i>			

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT G14: <i>MATERIALS HANDLING EQUIPMENT - AD</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Prepare RFP and T&E Plans	1	2013	3	2013
Design and Prototyping	2	2013	3	2013
Conduct Testing and Demonstration	4	2013	4	2013
Prepare Evaluations and Assessments	4	2013	4	2013

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0603804A: Logistics and Engineer Equipment - Adv Dev				K39: Field Sustainment Support AD			
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
K39: Field Sustainment Support AD	18.237	2.998	2.970	-	2.970	3.526	3.571	3.107	3.159	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports development of critical soldier support and sustainment systems including shelter systems (rigid and soft wall), cargo aerial delivery, field service systems, mortuary affairs equipment, heaters, camouflage systems to counter emerging enemy threat technologies, and other combat service support equipment. These systems will fill identified theater distribution and services capability gaps, improve unit sustainability, and increase combat effectiveness. This project also supports Advanced Component Development and Prototyping of Critical Distribution Capabilities to include cargo aerial delivery systems; which provide improved safety and accuracy while increasing survivability of aircraft, personnel, and equipment. The project supports the development of tactical heater systems that support mobile Joint Service command and control, medical, and maintenance platforms. This project develops critical enablers that support the Quartermaster (QM) Force Transformation Strategy and The Army's Modular Capabilities by maintaining readiness through fielding and integrating new equipment. This project also ensures Army Expeditionary Forces are capable of rapid deployment through aerial delivery initiatives and reduces sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands in lift, combat zone footprint, and costs for logistical support.

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

	FY 2011	FY 2012	FY 2013
Title: Low Cost Aerial Delivery System P3I (LCADS) Articles: Description: LCADS is a modular suite of low cost, expendable parachute/container air items that can be used in lieu of current low and high velocity systems. System includes a low-cost container, high-velocity parachute (70 - 90 feet per second (fps)) and low-velocity parachute (less than 28.5 fps). System is compatible with United States Air Force Aircraft (USAF A/C) and aerial port handling equipment. LCADS is a proven means to execute critical resupply missions without having to place soldiers and ground vehicle convoys on the road. FY 2011 Accomplishments: Continue execution of LCADS P3I effort to expand LCADS/Low Cost Low Altitude (LCLA) capability based upon theater feedback and Combined Arms Support Command (CASCOM) guidance. (i.e. increased LCLA weights and additional A/C certifications). FY 2012 Plans: Improvement of LCLA cross and Low velocity parachutes.	1.600 0	0.700 0	-
Title: Joint Precision Airdrop System 2,400 pounds (JPADS 2K) Articles:	6.000 0	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>		PROJECT K39: <i>Field Sustainment Support AD</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2011	FY 2012	FY 2013
Description: JPADS 2K is a Precision Guided Airdrop system that autonomously navigates along a predetermined glide and flight path to accurately deliver supplies and equipment. Its two primary components, a decelerator and an Autonomous Guidance Unit (AGU), interface with the USAF JPADS mission planner and has a gross rigged weight of 2,400 lbs. FY 2011 Accomplishments: Continues the Execution of JPADS 2K Pre-Planned Product Improvement efforts. Transition effort into systems development and demonstration.					
Title: Advanced Cargo Parachute Release System (ACPRS) Description: The ACPRS will replace the existing M-1 and M-2 cargo parachute release and is intended to decrease the number of inoperable payloads due to rollovers, while also providing a capability to airdrop loads at 500 ft Above Ground Level (AGL). FY 2011 Accomplishments: Continue the Developmental Testing (DT) and Operational Testing (OT) for ACPRS. FY 2012 Plans: Initiate OT and work towards Milestone C/Full rate Production Decision.			2.208 0	0.500 0	-
Title: Advanced Low Velocity Airdrop System Light and Heavy (ALVADS-L or ALVADS-H) Description: ALVADS - Light and Heavy are capable of airdrop operations at an altitude of 500-ft Above Ground Level (AGL) with increased aircraft survivability, and improved accuracy. Light Gross rigged weight of 2,520-22,000 pounds (lbs) and Heavy Gross rigged weight of 22,001-42,000 lbs. FY 2011 Accomplishments: Test possible prototype candidates, prior to beginning formal Design validation Testing FY 2012 Plans: Conduct ALVADS-L Design Validation (DV) testing. FY 2013 Plans: Complete ALVADS-L Design Validation (DV), initiate Developmental Testing (DT) and complete Milestone A for ALVADS-H.			1.500 0	1.352 0	1.400
Title: Space Heater Convective 90,000 BTU (SHC 90K) Articles:			0.350 0	-	-

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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 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev	PROJECT K39: Field Sustainment Support AD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Description: The SHC 90K is a self-powered, thermoelectric heater that operates outside the tent and provides forced hot air circulation without the need for an external power supply (i.e., field generator). The SHC 90K generates its own electrical power, without any moving parts, through the use of thermoelectric modules located inside the combustion chamber that convert waste heat into electricity. The internal generation of electrical power gives the SHC 90K the added capabilities of single switch operation, forced hot air circulation, outside the tent operation, completely automatic safety and temperature controls, built-in troubleshooting diagnostics, operation without the need for a fire guard, and significantly higher combustion efficiencies, all without the need for an external power supply. The heater burns multi-fuels and operates in extreme cold temperatures down to -60oF. FY 2011 Accomplishments: Conduct developmental testing and user field evaluation for SHC 120K. Prepare for transition to production and Milestone (MS) C decision.				
Title: Human Remains Transfer Case (HRTC) Description: A replacement for the current aluminum case for transporting remains from a theater of operation to Continental United States (CONUS) that incorporates insulation and refrigeration to provide optimal temperature control and eliminate use of ice and the need for reicing enroute. FY 2011 Accomplishments: Prepare Milestone B documentation and conduct test planning.		Articles: 0.400 0	-	-
Title: Joint Modular Intermodal Container System (JMICS) Description: JMICS Program provides a standard series of durable, reusable, user friendly, easy to handle, modular containers with a standard interface that will provide an effective and efficient handling and distribution operation. JMICS can move by air, land, and sea transportation systems for unit and ship deployments and sustainment operations. The JMICS modular approach can, in some cases, replace current outer packaging for munitions and other supplies for movement in the Defense Transportation System (DTS). The JMICS will also complement the services future automated loading systems and automated handling and storage systems along with emerging capabilities such as Seabasing. FY 2011 Accomplishments: Conduct development testing (minimal) to support MS C production decision for JMICS 3.0K variant.		Articles: 0.300 0	-	-
Title: Modular Ballistic Protection System (MBPS) Articles:		0.900 0	-	-

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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 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev	PROJECT K39: Field Sustainment Support AD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Description: MBPS is a lightweight, rapidly deployable and reusable ballistic protection system that can be installed in commonly used military shelters in expeditionary and remote base camps and outposts where more robust forms of ballistic protection (i.e. sandbags, concrete barriers) are not readily available or logistically feasible. FY 2011 Accomplishments: Initiate Engineering and Manufacturing Development (EMD) effort for MBPS and provide prototypes.				
Title: Rapid Rigging and Derigging System (RRDAS) Description: RRDAS creates a roll-on and roll-off capability for rolling stock, reduces exposure time on the drop zone, and reduces reliance on energy-dissipating material (Honeycomb), thus reducing rigging and de-rigging time. FY 2012 Plans: Award competitive contracts for prototype systems for RRDAS and conduct initial testing of potential candidate systems. FY 2013 Plans: Obtain MS B and award competitive contracts for prototype systems for RRDAS. Begin Design Validation (DV) testing.		Articles: -	0.446 0	1.570
Title: Zero-Footprint Contingency Base Camp Description: Zero-Footprint Base Camp reduces the operational energy and logistics footprint of the expeditionary base camp system, with the goal being a significant reduction in fuel, water, and power requirements to sustain operations in the field. Operating a base camp such as Force Provider requires a significant amount of logistics support and also produces an enormous amount of by products, both of which cost money, human effort (that means a risk in the form of soldiers on the road), and represents a potential vulnerability. FY 2011 Accomplishments: Conduct Delopmental Testing and Operational Testing (DT/OT) on Zero-Footprint Base Camp capabilities for Joint base camp systems in support of the Office of Secretary of Defense (OSD) Joint Expeditionary Basing Work Group initiative. Conduct evaluation of integrated technologies that are transitioning for the RDECOM 6.3 programs in a realistic operating environment at the Ft Devens Base Camp Systems Integration Laboratory (SIL). Efforts are focused on proving out subsystem maturity and the potential of these technologies before transitioning into System Development and Demonstration and putting them into operational use within the Army Force Provider base camps as a Pre-Planned Product Improvements (P3I). Focus will be on evaluating technologies that will improve upon the environmental and energy efficiency performance of the base camp. Specifically: 1) Evaluation of a variety of high performance insulating materials that are light-weight, durable, and cost effective; and 2) Integration		Articles: 4.979 0	-	-

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT K39: Field Sustainment Support AD				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2011	FY 2012	FY 2013
and evaluation of micro-grid / smart power / renewable energy solutions that can be incorporated into the standard Army Force Provider modules.												
Accomplishments/Planned Programs Subtotals										18.237	2.998	2.970
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	
• OPA MA7806: Precision Airdrop	21.282	16.207	5.935		5.935		8.129	9.555	9.128	Continuing	Continuing	
• OPA MA7807: Containerized Delivery System	6.467									0.000	6.467	
• RDT&E 643804.VR8: Combat Service Support Systems AD		2.074	2.023		2.023		2.039	2.375	2.415	Continuing	Continuing	
• RDT&E 654804.L39: Field Sustainment Support ED	5.599	4.226	2.550		2.550		2.368	2.331	2.269	Continuing	Continuing	
• RDT&E 654804.VR7: Combat Service Support Systems		2.544	1.745		1.745		1.708	1.883	1.915	Continuing	Continuing	
D. Acquisition Strategy												
Accelerate Joint Precision Aerial Delivery System (JPADS) product improvements to transition to Production.												
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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT K39: Field Sustainment Support AD					
Management Services (\$ 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
Project Management Support	Various	PM Force Sustainment Sys (FSS), Natick:Natick, MA	4.039	0.826		0.470		-		0.470	Continuing	Continuing	Continuing
Subtotal			4.039	0.826		0.470		-		0.470			
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
Soldier Support Equipment	Various	PM Force Sustainment Sys (FSS), Natick:Natick, MA	15.934	-		-		-		-	Continuing	Continuing	Continuing
LCADS P3I Effort	Various	Various:Various	1.200	0.100		-		-		-	Continuing	Continuing	Continuing
JPADS 2K and 10K product improvements	Various	Various:Various	5.900	-		-		-		-	Continuing	Continuing	Continuing
RRDAS Development	Various	Various:Various	2.000	0.200		0.750		-		0.750	Continuing	Continuing	Continuing
ALVADS Development	Various	Various:Various	7.900	0.550		0.400		-		0.400	Continuing	Continuing	Continuing
Next Generation Human Remains Transfer Case Development	Various	Various:Various	2.220	-		-		-		-	Continuing	Continuing	Continuing
JMICS Development	Various	Various:Various	1.097	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			36.251	0.850		1.150		-		1.150			
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
ALVADS-Light Testing Design Validation(DV). ALVADS- Heavy S&T Test	Various	YPG, AZ:YPG, AZ	7.500	0.502		0.800		-		0.800	Continuing	Continuing	Continuing
ECDS P3I	Various	DTC/OTC:Various	1.050	-		-		-		-	Continuing	Continuing	Continuing

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT K39: Field Sustainment Support AD					
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
RRDAS Design Validation (DV) Testing	Various	YPG, AZ:YPG, AZ	-	0.150		0.550		-		0.550	Continuing	Continuing	Continuing
ACPRS	Various	Ft Bragg, NC:NC	-	0.220		-		-		-	0.000	0.220	0.000
JPADS Testing	Various	YPG:Yuma Proving Ground, AZ	1.050	-		-		-		-	Continuing	Continuing	Continuing
LCADS P3I	Various	DTC, YPG, OTC, FT Bragg:Various	3.857	0.450		-		-		-	Continuing	Continuing	Continuing
SHC 90K Developmental Testing and User Field Evaluation	Various	ATC:Various	0.400	-		-		-		-	Continuing	Continuing	Continuing
Human Remains Transfer Case Developmental Testing	Various	ATC:Various	0.400	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			14.257	1.322		1.350		-		1.350			
			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			54.547	2.998		2.970		-		2.970			
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army																		DATE: February 2012										
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)									R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev									PROJECT K39: Field Sustainment Support AD										
	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
Obtain Milestone B on Advanced Low Velocity Airdrop System -Light(ALVADS-L)																												
Conduct DT on ALVADS																												
Conduct DV on Helicopter External/Internal Cargo Delivery																												
Obtain Milestone B (MS B) on Helicopter External/Internal Cargo Delivery																												
Conduct DT/Operational Test (OT) on Helicopter External/Internal Cargo Delivery																												
Conduct Milestone A on RRDAS																												
Conduct MS B on Rapid Rigging Derigging Airdrop System (RRDAS)																												
Conduct DV and DT on RRDAS																												
Conduct Milestone A (MS A) for ALVADS (H)																												
Conduct MS B for ALVADS (H)																												
Conduct DV on ALVADS (H)																												
Conduct DT and OT for ALVADS (H)																												
Obtain Milestone C for Joint Modular Intermodal Container (JMIC) 3.0K varian																												
Conduct DT on JMIC 3.0K variant																												
Conduct DV for ALVADS (L)																												
Conduct DT and OT for ACPRS																												
Obtain Milestone B for MBPS stand alone version																												
Develop and Test JPADS Advanced Accuracy Suite																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army																								DATE: February 2012													
APPROPRIATION/BUDGET ACTIVITY										R-1 ITEM NOMENCLATURE										PROJECT																	
2040: Research, Development, Test & Evaluation, Army										PE 0603804A: Logistics and Engineer										K39: Field Sustainment Support AD																	
BA 4: Advanced Component Development & Prototypes (ACD&P)										Equipment - Adv Dev																											
										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				
Obtain Milestone B on High Speed Container Delivery System (HSCDS)										<div></div>																											
Conduct DV on HSCDS										<div></div>																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY

2040: *Research, Development, Test & Evaluation, Army*
BA 4: *Advanced Component Development & Prototypes (ACD&P)*

R-1 ITEM NOMENCLATURE

PE 0603804A: *Logistics and Engineer Equipment - Adv Dev*

PROJECT

K39: *Field Sustainment Support AD*

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Obtain Milestone B on Advanced Low Velocity Airdrop System -Light(ALVADS-L)	2	2012	2	2012
Conduct DT on ALVADS	4	2013	3	2014
Conduct DV on Helicopter External/Internal Cargo Delivery	1	2015	4	2015
Obtain Milestone B (MS B) on Helicopter External/Internal Cargo Delivery	3	2014	3	2014
Conduct DT/Operational Test (OT) on Helicopter External/Internal Cargo Delivery	3	2016	1	2017
Conduct Milestone A on RRDAS	3	2013	3	2013
Conduct MS B on Rapid Rigging Derigging Airdrop System (RRDAS)	3	2013	3	2013
Conduct DV and DT on RRDAS	4	2013	3	2015
Conduct Milestone A (MS A) for ALVADS (H)	4	2013	4	2013
Conduct MS B for ALVADS (H)	2	2015	2	2015
Conduct DV on ALVADS (H)	3	2015	2	2016
Conduct DT and OT for ALVADS (H)	3	2016	2	2017
Obtain Milestone C for Joint Modular Intermodal Container (JMIC) 3.0K varian	1	2012	1	2012
Conduct DT on JMIC 3.0K variant	2	2011	4	2011
Conduct DV for ALVADS (L)	3	2012	3	2013
Conduct DT and OT for ACPRS	2	2011	2	2012
Obtain Milestone B for MBPS stand alone version	2	2012	2	2012
Develop and Test JPADS Advanced Accuracy Suite	3	2016	4	2017
Obtain Milestone B on High Speed Container Delivery System (HSCDS)	2	2014	2	2014
Conduct DV on HSCDS	3	2014	2	2015

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT K41: WATER AND PETROLEUM DISTRIBUTION - AD			
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
K41: WATER AND PETROLEUM DISTRIBUTION - AD	2.493	4.187	2.706	-	2.706	3.118	3.104	2.972	3.022	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project develops and demonstrates the potential of prototype equipment and technologies to satisfy petroleum storage, distribution, and quality surveillance system requirements. The Concept and Technology Development program supports the development and enhancement of rapidly deployable Petroleum and Water equipment. The mission includes developing onboard fuels quality analysis systems; achieving greater capabilities in the removal of Nuclear, Biological, Chemical (NBC) and other contaminants from water sources; reducing the logistics foot print; developing water reutilization systems to reduce the requirement for transport of water into the theater; and material systems to decrease the logistics foot print and employment time for the transfer of liquid logistics in the theater. This vital equipment enables the Army to achieve its mission by providing the Army with the means to be highly mobile and self-sustaining in very hostile theaters of operations. Future Force operations demand that combat systems be rapidly deployable to the theater, rapidly emplaced upon arrival, and rapidly relocated to support a fast moving non-linear battlefield.

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

	FY 2011	FY 2012	FY 2013
Title: Water System Capability Improvements Articles: Description: Funding is provided for the following effort FY 2011 Accomplishments: Develop pressure hold test for Lightweight Water Purifier (LWP) ultrafilters. FY 2012 Plans: Evaluate improved Tactical Water Purification Systems (TWPS) microfilters. FY 2013 Plans: Develop alternative protectant membranes for Tactical Water Purification Systems (TWPS) and Lightweight Water Purifier (LWP).	0.342 0	0.265 0	0.250
Title: Initiate effort to develop a mobile Water Packaging System . Articles: Description: Funding is provided for the following effort FY 2011 Accomplishments:	0.400 0	1.500 0	-

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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 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev	PROJECT K41: WATER AND PETROLEUM DISTRIBUTION - AD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Initiate effort to develop mobile water packaging system and prepare market investigation material.				
FY 2012 Plans: Prepare program documentation and purchase demonstration system.				
Title: Initiate effort to develop a bulk water purification system		0.450	0.822	2.096
Articles:		0	0	
Description: Funding is provided for the following effort				
FY 2011 Accomplishments: Initiate effort to develop a 3K Tactical Water Purification System (TWPS). Conduct market surveys and develop preliminary designs.				
FY 2012 Plans: Perform pilot test of potential components.				
FY 2013 Plans: Fabricate full scale prototype 3K Tactical Water Purification System (TWPS).				
Title: Improvements for Family of Fuel System Supply Points (FSSPs)		1.101	-	-
Articles:		0		
Description: Funding is provided for the following effort				
FY 2011 Accomplishments: Continue Fuel Systems improvements for Family of Fuel System Supply Points (FSSPs).				
Title: Water monitoring equipment.		0.200	0.200	-
Articles:		0	0	
Description: Funding is provided for the following effort				
FY 2011 Accomplishments: Development of in-line water monitoring equipment and hand-held water monitors for use on the Tactical Water Purification Systems (TWPS), Lightweight Water Purifier (LWP) and Reverse Osmosis Water Purification Unit (ROWPU).				
FY 2012 Plans: Integrate and test in-line water quality analysis equipment developed under TARDEC S&T program.				
Title: Fuel System Supply Points (FSSPs)		-	1.300	0.360

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT K41: WATER AND PETROLEUM DISTRIBUTION - AD			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2011	FY 2012	FY 2013
Articles: Description: Funding is provided for the following effort FY 2012 Plans: Develop prototype common pumping assembly for use in all Fuel System Supply Points (FSSPs). Test prototype automated tank gauging for collapsible fabric tanks in FSSPs. FY 2013 Plans: Address the capability gap for automated gauging to capture fuel quantities in collapsible tanks in the Fuel System Supply Point (FSSP). This includes the development of a data device that will transmit and store the data internally for the system and externally to high command.										0	
Title: Modular Tactical Refueling System (MTRS) Articles: Description: Funding is provided for the following effort FY 2012 Plans: Product development of the Modular Tactical Refueling System (MTRS). Down select components and begin subassemble.									-	0.100 0	-
Accomplishments/Planned Programs Subtotals									2.493	4.187	2.706
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
• PM PAWS Project L41 654804: Logisitics and Engineer Equipment - Engineering Development	2.636	2.077	3.839		3.839		3.615	3.726	3.789	Continuing	Continuing
• 150 Water Purification Systems: Water Purification Systems	15.683									Continuing	Continuing
• Distribution Sys Petroleum & Water: Distribution Systems Petroleum & Water	230.174	75.457	36.266		36.266		93.778	87.714	75.551	Continuing	Continuing
D. Acquisition Strategy											
C. Develop engineering prototypes or select Non-Developmental Item based on market surveys and proposals from industry. Competitive; sole source contracts.											

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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 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev	PROJECT K41: WATER AND PETROLEUM DISTRIBUTION - AD

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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT K41: WATER AND PETROLEUM DISTRIBUTION - AD					
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
Water Purification Components Improvements	Various	TBD:TBD	0.645	0.100		0.100		-		0.100	Continuing	Continuing	Continuing
Bulk Water Treatment System (3 K TWPS)	Various	TARDEC:Warren, MI	0.061	0.100		0.596		-		0.596	Continuing	Continuing	Continuing
Water Quality Monitoring	Various	TARDEC:Warren, MI	0.250	0.020		-		-		-	Continuing	Continuing	Continuing
Bulk Water Treatment System	Various	NFESC:Port Hueneme, CA	0.389	0.300		0.600		-		0.600	Continuing	Continuing	Continuing
Packaged Water System (EWPS)	Various	TARDEC:Warren,MI	0.300	-		-		-		-	Continuing	Continuing	Continuing
Packaged Water System (EWPS)	Various	NFESC:Port Hueneme,CA	0.500	-		-		-		-	Continuing	Continuing	Continuing
Petroleum Quality Analysis System Enhanced	Various	TARDEC:TARDEC Warren, MI	0.155	-		-		-		-	Continuing	Continuing	Continuing
Fuel Systems Components Improvements	RO	TARDEC:Warren, MI	0.451	-		-		-		-	Continuing	Continuing	Continuing
Fuel Gauging Improvements	Various	TBD:TBD	0.550	-		0.360		-		0.360	Continuing	Continuing	Continuing
Future Fuel Storage System	RO	TBD:TBD	0.247	-		-		-		-	Continuing	Continuing	Continuing
Bulk Fuel Distribution	Various	TBD:TBD	0.704	0.700		-		-		-	Continuing	Continuing	Continuing
Expeditionary Water Packaging System (EWPS)	SS/ FFPLOE	TARDEC:Warren, MI	-	1.500		-		-		-	Continuing	Continuing	Continuing
Bulk Water Treatment (3K TWPS)	C/CPFF	TARDEC:TARDEC Warren, MI	-	-		-		-		-	Continuing	Continuing	Continuing
Modular Tactical Refueling System (MTRS)	RO	TARDEC:Warren, MI	-	0.100		-		-		-	Continuing	Continuing	0.000
Subtotal			4.252	2.820		1.656		-		1.656			

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT K41: WATER AND PETROLEUM DISTRIBUTION - AD					
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
Water Purification Components Improvements	Various	TARDEC:Warren, MI	0.853	-		0.150		-		0.150	Continuing	Continuing	Continuing
Water Quality Monitoring	Various	TARDEC:Warren, MI	0.150	-		-		-		-	Continuing	Continuing	Continuing
Bulk Water Treatment System (3K TWPS)	Various	TARDEC:Warren, MI	-	-		0.500		-		0.500	Continuing	Continuing	Continuing
Subtotal			1.003	-		0.650		-		0.650			
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
Water Purification Components Improvements	Various	TARDEC:Warren, MI	1.016	0.165		-		-		-	Continuing	Continuing	Continuing
Water Quality Monitoring	Various	TARDEC:Warren, MI	0.150	0.150		-		-		-	Continuing	Continuing	Continuing
Water Quality Monitoring	Various	Aberdeen Proving Ground,MD:APG, MD	-	0.030		-		-		-	Continuing	Continuing	Continuing
3K TWPS	RO	TARDEC:Warren, MI	-	0.422		0.400		-		0.400	0.000	0.822	0.000
Fuel Pumping Assembly Improvements	Various	TARDEC:Warren, MI	0.100	0.600		-		-		-	Continuing	Continuing	Continuing
Subtotal			1.266	1.367		0.400		-		0.400			
			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			6.521	4.187		2.706		-		2.706			
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT K41: <i>WATER AND PETROLEUM DISTRIBUTION - AD</i>
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	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
Water from Air																												
Automated Fuels Management System																												
Future Fuels Storage Systems																												
Modular Tactical Refueling System (MTRS)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT K41: <i>WATER AND PETROLEUM DISTRIBUTION - AD</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Water from Air	4	2014	4	2017
Automated Fuels Management System	1	2014	4	2014
Future Fuels Storage Systems	4	2016	4	2017
Modular Tactical Refueling System (MTRS)	4	2011	1	2013

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT K42: MATERIEL SUSTAINMENT SUPPORT AD			
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
K42: MATERIEL SUSTAINMENT SUPPORT AD	0.446	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											
Note Project was completed in FY11.											
A. Mission Description and Budget Item Justification This project supported Advanced Component Development and Prototypes of new and reformulated paints, paint removers, cleaners and other surface coating materials and processes for weapon systems production and maintenance operations. The project increased operational sustainment and warfighter training capabilities by reducing soldier health risks, environmental impacts and compliance enforcement actions against installations while increasing coatings performance and standardization across the Army. Materials and processes demonstrated under this project are inherently compliant with all applicable National Emissions Standards for Hazardous Air Pollutants that regulate surface coating activities, thereby eliminating the need for Army installations to incur hundreds of millions of dollars in expenses to purchase, install and operate air pollution control devices. This project transitioned advanced technologies developed under 0603728A, Environmental Quality Technology Demonstrations (025). The project tested and evaluated Sustainable Painting Operations for the Total Army (SPOTA) at facilities that produce and maintain Combat Support/Combat Service Support systems, Ground Combat Vehicles and other Army equipment. The project expedited technology transition from the laboratory to operational use by demonstrating the capabilities of new materials and processes to fulfill the performance requirements outlined in Material Specifications, Depot Maintenance Work Requirements, Technical Manuals and other technical data. Test and evaluation activities were executed by Research, Development and Engineering Command (RDECOM) centers and laboratories in cooperation with the affected Life Cycle Management Commands, Program Executive Offices and Program Managers. Materials were demonstrated at ten different Army facilities in order to minimize the disruption of materiel maintenance operations at any one facility.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Title: Chemical Agent Resistant Coatings (CARC) and Non-CARC Paints Articles: Description: Qualify, validate and approve reformulated CARC systems and other non-CARC paints and surface coatings. FY 2011 Accomplishments: Validated and approved non-chromate, low volatile organic compound pretreatments.								0.234 0	-	-	
Title: Solvents, Thinners and Cleaners Articles:								0.120 0	-	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army							DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>			PROJECT K42: <i>MATERIEL SUSTAINMENT SUPPORT AD</i>			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Description: Qualify, validate and approve hazardous air pollutant (HAP)-free solvents, thinners and cleaners. FY 2011 Accomplishments: Implemented alternative products in approved applications.			
Title: Depainting <div style="text-align: right;">Articles:</div>	0.071 0	-	-
Description: Qualify, validate and approve chemical paint removers containing no methylene chloride or other HAPs. FY 2011 Accomplishments: Approved and implemented alternative products for all ground vehicle depainting vats.			
Title: Sealants and Adhesives <div style="text-align: right;">Articles:</div>	0.021 0	-	-
Description: Qualify, validate and approve reformulated sealants and adhesives for high-use applications. FY 2011 Accomplishments: Approved and implemented all demonstrated alternative adhesives and sealants.			
Accomplishments/Planned Programs Subtotals	0.446	-	-

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
• 0605857A 06l: <i>Environmental Quality Technology Mgmt Support (06l)</i>	0.042									0.000	0.042

D. Acquisition Strategy
The project transitioned demonstrated technology directly into the Army supply system by having National Stock Numbers assigned/reassigned and immediately made available for procurement by the Defense Logistics Agency and the General Services Administration. As acquisition managers approved the new materials and processes for use on their systems, technical writers specified them in the appropriate technical publications. The project was managed by the Environmental Acquisition and Logistics Sustainment Program Director at the Headquarters, U.S. Army Research Development and Engineering Command (RDECOM).

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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 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev	PROJECT K42: MATERIEL SUSTAINMENT SUPPORT AD

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-2A, RDT&E Project Justification: PB 2013 Army									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0603804A: Logistics and Engineer Equipment - Adv Dev				L04: JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD			
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
L04: JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD	36.408	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Joint Light Tactical Vehicles (JLTV): Funding supports the development and testing of the JLTV Family of Vehicles (FoV), which is being developed as a joint and international system between the Army and Marine Corps, and the Australian Army, participating under a Project Arrangement. The JLTV goal is a FoV with companion trailers capable of performing multiple mission roles that will be designed to provide protected, sustained, networked mobility for personnel and payloads across the full Range of Military Operations (RoMO). JLTV objectives include increased protection and performance over the current fleet; minimizing ownership costs by maximizing commonality, fuel efficiency and other means; and maintaining effective competition throughout the lifecycle. The JLTV FoV includes ten (10) sub-configurations (and companion trailers) in three payload categories. Commonality of components, maintenance procedures, training, etc., between vehicles and trailers is expected to be inherent in FoV solutions within and across Payload Categories to minimize FoV total ownership cost. Unique service requirements have been minimized.

FY11 major budget activities supported completion of the Technology Development (TD) phase testing, testing report submissions, and closeout of the TD prototype contracts. As the program progressed towards the Engineering and Manufacturing Development (EMD) phase, major budget activities supported staffing of the Capabilities Development Document, development of Milestone B documentation and the purchase of Government Furnished Equipment (GFE). Awaiting Acquisition Decision Memorandum (ADM) for approval to purchase GFE prior to Milestone B, therefore the program will carry over funding to FY 2012.

RDT&E funding will be provided under two new Program Elements - 0604804A, Project L50 for FY12 and 0605812A, Project VU9 for out-years.

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

	FY 2011	FY 2012	FY 2013
Title: JLTV Program Management Articles: Description: Funding is provided for the following effort FY 2011 Accomplishments: for salaries, in-house, etc.	7.700 0	-	-
Title: JLTV Variant Prototype Contract Design, Development and Fabrication Articles:	24.308 0	-	-

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT L04: JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2011	FY 2012	FY 2013	
Description: Funding is provided for the following effort											
FY 2011 Accomplishments: For contract design and development											
Title: JLTV Technical and Development, Test and Evaluation								4.400	-	-	
Articles:								0			
Description: Funding is provided for the following effort											
FY 2011 Accomplishments: JLTV Test Support											
Accomplishments/Planned Programs Subtotals								36.408	-	-	
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
• PM JLTV Project L50: Joint Light Tactical Vehicles (JLTV), 0604804A, Army RDTE Project L50		87.217								0.000	87.217
• PM JLTV Project VU9: Joint Light Tactical Vehicles (JLTV), 0605812A, Army RDTE Project VU9			72.295		72.295		31.549	51.924	53.223	Continuing	Continuing
• PM JLTV D15603: Joint Light Tactical Vehicles (JLTV), D15603, Army OPA 1							167.408	299.238	516.722	Continuing	Continuing
• PM JLTV Project 3209 0603635M: Marine Corps Ground Combat/Support Systems, 0603635M, RDTE Project 3209	18.364	46.866								Continuing	Continuing
• PM JLTV Project 3209 0605812M: Marine Corps Ground			44.500		44.500		16.000	40.100	44.300	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT L04: <i>JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD</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>
<i>Combat/Support Systems, 0605812M, RDTE Project 3209</i>											
• <i>PM JLTV Project 5095: Marine Corps Ground Combat/Support Systems, 0206221M, Production 5095</i>							24.500	87.300	134.900	Continuing	Continuing

D. Acquisition Strategy

The Joint Light Tactical Vehicle (JLTV) Acquisition Strategy for the Technology Demonstration (TD) phase, FY 2008 through FY 2011, is to competitively award multiple contracts. During this phase, the contractors will be required to design the JLTV Family of Vehicles (FoV) to the Preliminary Design Review level and fabricate and test selected prototypes and trailers for payload Categories A, B, and C. The TD phase contracts were awarded on October 29, 2008 under the full and open competition process to BAE Systems Land and Armament Systems-Ground Systems Division; General Tactical Vehicles (A Joint Venture of General Dynamics Land Systems, Inc. and AM General, LLC); and Lockheed Martin Systems Integration. The fabricated prototypes will undergo developmental testing, as well as limited user assessments, in a relevant environment at Government test facilities. The addition of Australian prototypes to the program will further reduce the risk. The goal is to ensure the family of prototypes is mature in terms of supporting technologies and full system integration for Milestone B approval and entry into Engineering and Manufacturing Development (EMD) phase.

Joint Light Tactical Vehicles (JLTV) is a Joint Services Program with the U.S. Army and Marine Corps as the two main components. In addition, the Navy anticipates procuring JLTV vehicles upon successful Low Rate Initial Production (LRIP) testing. The program will use an evolutionary approach to deliver capabilities in increments based on program priorities. All technologies entering the current Engineering, Manufacturing and Development (EMD) phase shall be no less than Technology Readiness Level 6 to achieve Capabilities Development Document (CDD) requirements.

The program revised the acquisition strategy in the first quarter FY 2012 addressing Better Buying Power Initiatives, and reduced the schedule by 15 months to enable a 33-month Non-Developmental Item approach for EMD with Milestone B in third quarter of FY 2012. This initiative saves \$400.0 million in the Future Years Defense Program (FYDP) for the Services.

Increment I will produce two Mission Role Variant (MRV) configurations (Combat Tactical Vehicle (CTV) and Combat Support Vehicle (CSV)) with mission packages (General Purpose, Heavy Guns Carrier, Close Combat Weapons Carrier and Utility/Shelter Carrier). EMD vendors will fabricate representative mission packages from both MRVs, which the Government will fully test during the EMD phase. Agreement was reached between the PM and user community to eliminate two mission packages, the Special Purpose (SP) and Command and Control On-The Move (C2OTM) vehicles which integrated WIN-T systems for the Army. Eliminating these unique vehicles reduces technical risk and cost of the JLTV EMD effort. It also eliminates duplicate development and relies on the WIN-T program's existing efforts to fund, integrate, and test their capabilities on other vehicles during the JLTV EMD schedule.

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT L04: <i>JOINT LIGHT TACTICAL VEHICLE (JLTV)</i> - AD
<p>Through a full and open competition, the program anticipates awarding up to three firm-fixed price contracts for the EMD phase. Unless future market research identifies a valid non-EMD vendor capable of delivering the required capabilities, there will be a down-select from the EMD contractors to enter into the Production and Deployment phase. The down-select will result in a fixed-price type contract with a base LRIP quantity, LRIP options, full-rate production options, and a Technical Data Package option.</p> <p><u>E. Performance Metrics</u></p> <p>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.</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
2040: Research, Development, Test & Evaluation, Army				PE 0603804A: Logistics and Engineer				L04: JOINT LIGHT TACTICAL VEHICLE (JLTV)					
BA 4: Advanced Component Development & Prototypes (ACD&P)				Equipment - Adv Dev				- AD					
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
JLTV Technical & Development Contract / Government Furnished Equipment (GFE)	C/CS	Various:TBD	10.416	-		-		-		-	Continuing	Continuing	Continuing
JLTV Program Management	Various	Various:TACOM, Warren, MI	7.700	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			18.116	-		-		-		-			
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
JLTV Variant Prototype Design	Various	Tank-Automotive Research, Development and Engineering Center (TARDEC):Warren, MI	3.854	-		-		-		-	0.000	3.854	0.000
JLTV Variant Prototype Design	Various	TACOM Life Cycle Management Command (LCMC) Offices:Warren, MI	3.341	-		-		-		-	0.000	3.341	0.000
JLTV Variant Prototype Design	Various	Other Government Agencies:Various	3.291	-		-		-		-	0.000	3.291	0.000
JLTV Variant Prototype Design	Various	Defense Technical Information Center:Ft. Belvoir, VA	3.406	-		-		-		-	0.000	3.406	0.000
Subtotal			13.892	-		-		-		-	0.000	13.892	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army											DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>				PROJECT L04: <i>JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD</i>					

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
JLTV Developmental Test Support	MIPR	Aberdeen Test Center:Aberdeen Proving Ground, MD	4.400	-		-		-		-	0.000	4.400	0.000
Subtotal			4.400	-		-		-		-	0.000	4.400	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	36.408	-	-	-	-			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army			DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>		PROJECT L04: <i>JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD</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
Joint Capability Development Document (CDD) Approved																												
Engineering, Manufacturing, and Development (EMD) RFP release																												
Source Selection Evaluation Board (SSEB)																												
MS B																												
EMD Contract Award																												
EMD Development Contract																												
EMD Test and Validation / Reports																												
MS C Preparation																												
MS C																												
LRIP Contract Award																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT L04: <i>JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Joint Capability Development Document (CDD) Approved	2	2012	2	2012
Engineering, Manufacturing, and Development (EMD) RFP release	2	2012	2	2012
Source Selection Evaluation Board (SSEB)	2	2012	3	2012
MS B	3	2012	3	2012
EMD Contract Award	3	2012	3	2012
EMD Development Contract	3	2012	4	2014
EMD Test and Validation / Reports	4	2012	1	2015
MS C Preparation	2	2014	2	2015
MS C	2	2015	2	2015
LRIP Contract Award	3	2015	3	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0603804A: Logistics and Engineer Equipment - Adv Dev				VR8: COMBAT SERVICE SUPPORT SYSTEMS - AD			
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
VR8: COMBAT SERVICE SUPPORT SYSTEMS - AD	-	2.074	2.023	-	2.023	2.223	2.039	2.375	2.415	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports development of critical soldier support and sustainment systems including shelter systems (rigid and soft wall), base camp subsystems, field service systems, mortuary affairs equipment, heaters, camouflage systems to counter emerging enemy threat technologies, and other combat service support equipment. These systems will fill identified theater distribution and services capability gaps, improve unit sustainability, and increase combat effectiveness. This project supports Advanced Component Development and Prototyping of Critical tactical support systems that support mobile Joint Service command and control, medical, and maintenance platforms. This project develops critical enablers that support the Quartermaster (QM) Force Transformation Strategy and The Army's Modular Capabilities by maintaining readiness through fielding and integrating new equipment. This project also ensures Army Expeditionary Forces are capable of rapid deployment and reduces sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands in lift, combat zone footprint, and costs for logistical support.

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

	FY 2011	FY 2012	FY 2013
Title: Zero-Footprint Base Camp Articles: Description: Zero-Footprint Base Camp reduces the operational energy and logistics footprint of the expeditionary base camp system, with the goal being a significant reduction in fuel, water, and power requirements to sustain operations in the field. Operating a base camp such as Force Provider requires a significant amount of logistics support and also produces an enormous amount of by products, both of which cost money, human effort (that means a risk in the form of soldiers on the road), and represents a potential vulnerability. FY 2012 Plans: Conduct Delopmental Testing and Operational Testing (DT/OT) on Zero-Footprint Base Camp capabilities for Joint base camp systems in support of the Office of Secretary of Defense (OSD) Joint Expeditionary Basing Work Group initiative FY 2013 Plans: Conduct evaluation of integrated technologies that are transitioning for the RDECOM 6.3 programs in a realistic operating environment at the Ft Devens Base Camp Systems Integration Laboratory (SIL). Efforts are focused on proving out subsystem maturity and the potential of these technologies before transitioning into System Development and Demonstration and putting them into operational use within the Army Force Provider base camps as a Pre-Planned Product Improvements (P3I). Focus will be on evaluating technologies that will improve upon the environmental and energy efficiency performance of the base camp.	-	0.984 0	0.751

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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 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev	PROJECT VR8: COMBAT SERVICE SUPPORT SYSTEMS - AD		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Specifically: 1) Evaluation of a variety of high performance insulating materials that are light-weight, durable, and cost effective; 2) Integration and evaluation of micro-grid / smart power / renewable energy solutions that can be incorporated into the standard Army Force Provider modules; and 3) Integration and evaluation of smart and energy efficient Environmental Control Units / Heaters that will compliment improved shelter efficiencies and significantly reduce the fuel demand on base camp operations.				
Title: Net-Zero Energy Efficiency Solutions Articles: Description: Net-Zero Energy Efficiency Solutions reduce the logistics footprint of the expeditionary base camp system, with the goal being a significant reduction in fuel, water, and power requirements to sustain operations in the field. Operating a base camp such as Force Provider requires a significant amount of logistics support and also produces an enormous amount of by products, both of which cost money, human effort (that means a risk in the form of soldiers on the road), and represents a potential vulnerability. FY 2012 Plans: Conduct evaluation on Net-Zero energy efficiency solutions for Force Provider FY 2013 Plans: Continue evaluation of Net-Zero energy efficiency solutions for Force Provider. In early FY 13 transition Energy Efficiency (E2) shelter kit solutions into System Development and Demonstration for Developmental Testing (DT).		-	0.490 0	1.050
Title: Modular Ballistic Protection System (MBPS) Articles: Description: MBPS is a lightweight, rapidly deployable and reusable ballistic protection system that can be installed in commonly used military shelters in expeditionary and remote base camps and outposts where more robust forms of ballistic protection (i.e. sandbags, concrete barriers) are not readily available or logistically feasible. FY 2012 Plans: Conduct Developmental Testing (DT) on internal TEMPER Modular Ballistic Protection System (MBPS). Prepare documentation to support Milestone B for stand-alone variant of MBPS. Obtain Milestone B and initiate development of stand-alone version. FY 2013 Plans: Complete development of stand-alone variant, conduct DT on stand-alone variant, and transition to System Development and Demonstration.		-	0.600 0	0.222
Accomplishments/Planned Programs Subtotals		-	2.074	2.023

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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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT VR8: COMBAT SERVICE SUPPORT SYSTEMS - AD				
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	
• RDT&E 643804.K39: Field Sustainment Support AD	18.237	2.998	2.970		2.970		3.571	3.107	3.159	Continuing	Continuing	
• RDT&E 654804.L39: Field Sustainment Support ED	5.599	4.226	2.550		2.550		2.368	2.331	2.269	Continuing	Continuing	
• RDT&E 654804.VR7: Combat Service Support Systems		2.544	1.745		1.745		1.708	1.883	1.915	Continuing	Continuing	
• OPA M80200: Force Provider	93.782	68.000								0.000	161.782	
D. Acquisition Strategy												
Accelerate Base Camp efficiency and safety initiaives to incorporate in deployed camps and/or incorporate during reset of equipment.												
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 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603804A: Logistics and Engineer Equipment - Adv Dev				PROJECT VR8: COMBAT SERVICE SUPPORT SYSTEMS - AD					
Management Services (\$ 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
Project Management Support	Various	PM Force Sustainment Systems:Natick, MA	-	0.203		0.199		-		0.199	Continuing	Continuing	0.000
Subtotal			-	0.203		0.199		-		0.199			0.000
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
Soldier Support Equipment	Various	Various:Various	-	0.939		0.920		-		0.920	Continuing	Continuing	0.000
Subtotal			-	0.939		0.920		-		0.920			0.000
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
Soldier Support Equipment	Various	Various:Various	-	0.932		0.904		-		0.904	Continuing	Continuing	0.000
Subtotal			-	0.932		0.904		-		0.904			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			-	2.074		2.023		-		2.023			0.000
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT VR8: <i>COMBAT SERVICE SUPPORT SYSTEMS - AD</i>
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	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
Conduct evaluation on Net-Zero energy efficiency solutions																												
Conduct System Integration & Evaluation of Zero-Footprint Base Capability																												
Obtain Milestone B on Mobile Integrated Shop Shelter System																												
Conduct DT/OT on Mobile Integrated Shop Shelter System																												
Obtain MS B on SoS Base Camp Efficiency & Environ (E2) project																												
Conduct DT on SoS Base Camp Efficiency & Environ(E2) project																												
Obtain Milestone B on Advanced Mortuary Affairs Systems																												
Conduct developmental improvements of ULCANS technology improvements and variant																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603804A: <i>Logistics and Engineer Equipment - Adv Dev</i>	PROJECT VR8: <i>COMBAT SERVICE SUPPORT SYSTEMS - AD</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Conduct evaluation on Net-Zero energy efficiency solutions	1	2012	4	2013
Conduct System Integration & Evaluation of Zero-Footprint Base Capability	1	2012	4	2014
Obtain Milestone B on Mobile Integrated Shop Shelter System	2	2015	2	2015
Conduct DT/OT on Mobile Integrated Shop Shelter System	1	2016	4	2016
Obtain MS B on SoS Base Camp Efficiency & Environ (E2) project	2	2014	2	2014
Conduct DT on SoS Base Camp Efficiency & Environ(E2) project	1	2015	2	2016
Obtain Milestone B on Advanced Mortuary Affairs Systems	2	2017	2	2017
Conduct developmental improvements of ULCANS technology improvements and variant	1	2014	4	2017