

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2007

BUDGET ACTIVITY		PE NUMBER AND TITLE								
<b>4 - Advanced Component Development and Prototypes</b>		<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>								
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	12195	10103	27499	22237	29988	32111	15192	12417	Continuing	Continuing
526 MARINE ORIEN LOG EQ AD	2397	98	3079	3099	3104	3104	3071	3144		21096
G11 ADV ELEC ENERGY CON AD	1763	2030	3171	3390	2926	2942	1642	740	Continuing	Continuing
G14 MATERIALS HANDLING EQUIPMENT - AD	190	203	268	212						873
K39 Field Sustainment Support AD	5244	3230	12341	9853	17635	22731	5653	5533	Continuing	Continuing
K41 WATER AND PETROLEUM DISTRIBUTION - AD	2601	4542	2458	442	3303	2854	4826	3000		24026
K42 MATERIEL SUSTAINMENT SUPPORT AD			6182	5241	3020	480				14923

**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.

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BUDGET ACTIVITY	PE NUMBER AND TITLE			
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>			
<b><u>B. Program Change Summary</u></b>	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2007)	13184	13216	12692	13276
Current BES/President's Budget (FY 2008/2009)	12195	10103	27499	22237
Total Adjustments	-989	-3113	14807	8961
Congressional Program Reductions		-3039		
Congressional Rescissions	-989			
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer				
Adjustments to Budget Years		-74	14807	8961

Change Summary Explanation:

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2007**

<b>BUDGET ACTIVITY</b> <b>4 - Advanced Component Development and Prototypes</b>			<b>PE NUMBER AND TITLE</b> <b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>						<b>PROJECT</b> <b>526</b>	
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
526 MARINE ORIEN LOG EQ AD	2397	98	3079	3099	3104	3104	3071	3144		21096

**A. Mission Description and Budget Item Justification:** This project supports advanced component development and prototype equipment for the Army's Logistics-Over-The-Shore (LOTS) missions. The primary mission of Army Watercraft Systems is inherently tied to the required capability to move tonnage/cargo from major sea going vessels to the shore in support of LOTS/Joint Logistic over the Shore (JLOTS) and various watercraft missions. The Army utilizes a combination of Modular Causeway Systems (MCS), Barge Derricks (BD), Barges, Landing Craft (Landing Craft Utility (LCU), Logistic Support Vessel (LSV), Landing Craft Mechanized (LCM-8) and Tug Boats to offload deep draft vessels. The time phased mix of numbers and types of vessels outlined are essential in maintaining a given level of capability to support JLOTS operations. This capability is only as strong as the weakest link and takes the full combination of all assets to accomplish.

Funding for the Joint Enable Theater Access-Seaports of Debarkation (JETA-SPOD) Advanced Concept Technology Demonstration (ACTD) will be used to support the Lightweight Modular Causeway System (LMCS) component of the program. This includes funding for LMCS core developmental requirements and Operational Testing/Military Utility Assessment (MUA) in FY08, and follow-on research and development funding to support the transition of LMCS to an acquisition Program of Record beginning in FY09. This funding will provide R&D of the full scale operational prototype in addition to a broader and more robust MUA designed to adequately test and assess the LMCS for military utility under the lead of the USPACOM ACTD Operational Manager (OM). Performance risk will be mitigated by ensuring the technology receives optimum test and evaluation to meet the warfighting operational requirements. Funding will also allow the development of an additional 50-60 foot section that will result in expanded technical development, testing, and utility assessment for the multiple operational uses and employment methods (eg. Army/Service Watercraft, JHSV, dry/wet gap crossings, and aerial delivery).

LMCS will optimize the throughput capabilities of the Joint High Speed Vessel (JHSV), current Army/USMC watercraft, and bridging requirements across extended mudflats/tidal estuaries by providing a more rapid and increased flow of combat power and sustainment through multiple austere theater access points. LMCS is transported on and rapidly employed by these vessels to provide the Joint and Combined force commanders a means to mitigate threat anti-access activities and increases flexibility to conduct operational maneuver from strategic distances. The ACTD complements the JHSV program by optimizing throughput and warfighting operational capabilities not currently available in support of Lines of Communication (LOC) in the theater of operations.

<b>Accomplishments/Planned Program:</b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY06-FY09: JETA-SPOD	1800		2879	2824
FY06-FY09: Program Support.	335	96	200	275
FY06: HSV Demil, Completed Theater Support Vessel (TSV) advanced development to include programmatic documentation (i.e. TEMP, threat assessment, acquisition strategy, etc.)	212			
FY06 Medium Tug-Market Survey	50			
SBIR/STTR		2		
<b>Total</b>	<b>2397</b>	<b>98</b>	<b>3079</b>	<b>3099</b>

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2007**

<b>BUDGET ACTIVITY</b> <b>4 - Advanced Component Development and Prototypes</b>	<b>PE NUMBER AND TITLE</b> <b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>	<b>PROJECT</b> <b>526</b>
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<b><u>B. Other Program Funding Summary</u></b>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
OPA 3, R97500, Causeway Systems	7103	8938							Continuing	Continuing

Comment:

**C. Acquisition Strategy** Not applicable for this item.

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
4 - Advanced Component Development and Prototypes			0603804A - Logistics and Engineer Equipment - Adv Dev									526		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TSV Studies/Development	PWD	Naval Underwater Warfare Center, Newport, R.I.	3286									Cont.	3286	
TSV - composite prototype hull design	MIPR	Naval Underwater Warfare Center, Newport, R.I.	4211										4211	
Medium Tug Market Survey	MIPR	TBS		50	2-3Q								50	
HCCC Design	PWD	TBD			1-2Q								300	
JETA-SPOD-Lightweight Modular Causeway System (LMCS)	MIPR	USAPACOM J14-12, Camp Smith, Hawaii		1800	1-2Q			2879		2824		Cont.	Cont.	
Subtotal:			7497	1850				2879		2824		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TSV/Matrix Support	MIPR	TACOM CBU, Warren, MI	4366									Cont.	4366	
TSV - composite prototype hull design	MIPR	CASCOM, Ft. Lee, VA	5240									Cont.	5240	
TSV/Matrix Support	MIPR	TARDEC, Warren, MI/ICI	170										170	
TSV/In-house	MIPR	PM Force Projection, Warren, MI	2190									Cont.	2190	
TSV-Demil	MIPR	TACOM, PSID, Warren, MI		212	1-2Q							Cont.	Cont.	
JETA-SPOD-LMCS	MIPR	TACOM, PSID, Warren, MI			1-2Q		1-2Q					Cont.	Cont.	
Subtotal:			11966	212								Cont.	Cont.	

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY <b>4 - Advanced Component Development and Prototypes</b>	PE NUMBER AND TITLE <b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>	PROJECT <b>526</b>
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III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TSV	MIPR	DTC/ATEC, MD	1071									Cont.	1071	
TSV	MIPR	PM WIN-T	1500										1500	
HCCC	MIPR	USAFTCFE, Ft. Eustis, VA										Cont.	Cont.	
Subtotal:			2571									Cont.	Cont.	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Support	MIPR	PM Force Projection, TACOM, Warren, MI	625	335		96		200		275			1531	
HCCC	MIPR	PM Force Projection, TACOM, Warren, MI										Cont.	Cont.	
JETA-SPOD-LMCS	MIPR	PM Force Projection, TACOM, Warren, MI										Cont.	Cont.	
SBIR/STTR						2							2	
Subtotal:			625	335		98		200		275		Cont.	Cont.	

<b>Project Total Cost:</b>	<b>22659</b>	<b>2397</b>		<b>98</b>		<b>3079</b>		<b>3099</b>		<b>Cont.</b>	<b>Cont.</b>
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<b>Schedule Detail (R4a Exhibit)</b>	<b>February 2007</b>
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BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>	<b>526</b>

**Schedule Detail:** Not applicable for this item.

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# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2007**

<b>BUDGET ACTIVITY</b> <b>4 - Advanced Component Development and Prototypes</b>				<b>PE NUMBER AND TITLE</b> <b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>					<b>PROJECT</b> <b>G11</b>	
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
G11 ADV ELEC ENERGY CON AD	1763	2030	3171	3390	2926	2942	1642	740	Continuing	Continuing

**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 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 power sources in support of all Services. It supports initiatives that are essential to the development and fielding to modernized Mobile Electric Power (MEP) sources from 0.5 KW to 750 KW that comply with environmental statutes and provide noise and signature-suppressed, energy efficiency, lightweight, deployable and reliable equipment. FY08 and FY09 will fund test and evaluation technologies for Small Tactical Electric Power (STEP) and initiate market survey and begin evaluation of components for Large Advanced Mobile Power Sources (LAMPS).

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY06: Continued Small Tactical Electric Power (STEP) proof of principle prototype development	1763			
FY07: Evaluate and conduct limited testing of specific commercial technologies for possible consideration as materiel solutions to STEP component and/or system level requirements.		1976		
FY07: Small Business Innovative Research (SBIR)		48		
FY07: Small Business Technology Transfer Programs (STTR)		6		
FY08: Conduct extensive test and evaluation of commercial technologies that are deemed to offer the best component and/or system level solutions for STEP.			2500	
FY08: Initiate market survey and begin evaluation of commercial components and system level solutions for the Large Advanced Mobile Power Sources (LAMPS).			671	
FY09: Begin development and limited testing and analysis of STEP components.				1535
FY09: Conduct engineering analysis of commercial components for LAMPS; define component performance parameters.				1855
<b>Total</b>	<b>1763</b>	<b>2030</b>	<b>3171</b>	<b>3390</b>

<u>B. Other Program Funding Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
RDT&E:PE0604804A, Logistics and Engineer Equipment - Eng Dev L47			4465	5989	3500	1500				15454
RDT&E:PE0604804A, Logistics and Engineer Equipment - Eng Dev 194	3900	16826	8696	4402	1399	1400	2375	1552	Continuing	Continuing
OPA 3, Generators and Associated Eq. MA9800	65816	90789	92863	159816	142716	131504	131767	23601	Continuing	Continuing

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY

**4 - Advanced Component Development and Prototypes**

PE NUMBER AND TITLE

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

PROJECT

**G11**

Comment:

**C. Acquisition Strategy** Complete advanced development and transition to system development and demonstration phase (Milestone B) and subsequent transition to production (Milestone C).

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
4 - Advanced Component Development and Prototypes			0603804A - Logistics and Engineer Equipment - Adv Dev									G11		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	MIPR	CECOM - Belvoir	971			891	1Q	450	1Q	500	1Q	Cont.	Cont.	
STEP Prototypes	MIPR	CECOM - Belvoir	880	1192	2Q							Cont.	Cont.	
LAMPS Components	MIPR	CECOM - Belvoir						400	1Q	450	1Q	Cont.	Cont.	
Subtotal:			1851	1192		891		850		950		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	MIPR	CECOM-Belvoir	670			981	1Q	600	1Q	600	1Q	Cont.	Cont.	
STEP Prototypes	MIPR	CECOM-Belvoir	400	271	1Q							Cont.	Cont.	
LAMPS Components	MIPR	CECOM-Belvoir						1000	1Q	1000	1Q	Cont.	Cont.	
Subtotal:			1070	271		981		1600		1600		Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	MIPR	CECOM-Belvoir	789					250	2Q	340	2Q	Cont.	Cont.	
STEP Prototypes	MIPR	CECOM-Belvoir		150	2Q							Cont.	Cont.	
LAMPS Components	MIPR	CECOM-Belvoir						295	2Q	310	2Q	Cont.	Cont.	
Subtotal:			789	150				545		650		Cont.	Cont.	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT	
<b>4 - Advanced Component Development and Prototypes</b>			<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>									<b>G11</b>	
	Type		Cost		Date		Date		Date		Date	e	Contract
STEP Components	In-house	In-house	301		158	1-4Q	88	1-4Q	95	1-4Q		Cont.	Cont.
STEP Prototypes	In-House	In-house	127	150	1Q							Cont.	Cont.
LAMP Components							88	1-4Q	95	1-4Q		Cont.	Cont.
Subtotal:			428	150		158		176		190		Cont.	Cont.
<b>Project Total Cost:</b>			<b>4138</b>	<b>1763</b>		<b>2030</b>		<b>3171</b>		<b>3390</b>		<b>Cont.</b>	<b>Cont.</b>

# Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT																														
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>	<b>G11</b>																														
Event Name	FY 06				FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>STEP Program</b>																																
(1) Assess Commercially Available Components																																
(2) Test Commercially Available Components, (3) Develop Proof of Principle Prototype (Commercial Components), (4) Complete Proof of Principle Prototype, (5) Complete Test and Evaluation, (6) Transfer to System Development & Demonstration																																
<b>LAMPS Program</b>																																
(7) Initiate LAMPS Program																																
(8) Complete Engineering Assessment and Component Market Survey																																
(9) Engineering Analysis of Commercial Components																																
(10) Define Performance Parameters of Commercial Components																																
(11) Test and Assess Commercial Components, (12) Develop LAMPS System Prototype, (13) Complete Test and Evaluation of LAMPS System Prototype, (14) Transfer LAMPS Program to System Development and Demonstration																																

## Schedule Detail (R4a Exhibit)

February 2007

BUDGET ACTIVITY		PE NUMBER AND TITLE						PROJECT	
<b>4 - Advanced Component Development and Prototypes</b>		<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>						<b>G11</b>	
<u>Schedule Detail</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	
STEP Program	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q			
Assess Commercially Available Components		2Q							
Test Commercially Available Components			3Q						
Develop Proof of Principle Prototype (Commercial Components)						4Q			
Complete Proof of Principle Prototype							4Q		
Complete Test and Evaluation								1Q	
Transfer to System Development & Demonstration								3Q	
LAMPS Program									
Initiate LAMPS Program			1Q						
Complete Engineering Assessment and Component Market Survey			1Q						
Engineering Analysis of Commercial Components			2Q						
Define Performance Parameters of Commercial Components				3Q					
Test and Assess Commercial Components					4Q				
Develop LAMPS System Prototype						4Q			
Complete Test and Evaluation of LAMPS System Prototype							4Q		
Transfer LAMPS Program to System Development and Demonstration								2Q	

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

<b>BUDGET ACTIVITY</b> <b>4 - Advanced Component Development and Prototypes</b>			<b>PE NUMBER AND TITLE</b> <b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>						<b>PROJECT</b> <b>K39</b>	
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
K39 Field Sustainment Support AD	5244	3230	12341	9853	17635	22731	5653	5533	Continuing	Continuing

**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, improved environmental control units 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 that provide improved safety and accuracy while increasing survivability of aircraft, personnel, and equipment. The project supports the development of tactical environmental control systems that support mobile, joint service platforms for vehicle-mounted command and control systems, medical care capabilities and high tech maintenance shelters and vans. 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 Program:</b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 06: Completed Developmental Testing (DT) and Operational Testing (OT) for Low Cost Aerial Delivery Low Velocity Parachute (LCADS Low-V). FY 07: Obtain Milestone C for LCADS Low-V. FY 08/09 Execute LCADS P3I effort to include evaluation of LCADS capability as a total replacement for current reusable cargo chutes and increase weight capacity.	350	20	600	250
FY 06: Awarded System Development and Demonstration (SDD) contract, fabricated test prototypes. Began Production Qualification Testing (PQT) for the 60k Improved Environmental Control Unit (IECU). FY 07: Continue engineering and logistics data deliverables. Complete PQT, logistics demonstration and user evaluation. FY 08: Obtain Milestone C Full Rate Production (RFP) decision for 60k IECU.	1700	1020		
FY 06: Issued Request for Procurement (RFP) for Joint Precision Airdrop System (JPADS) 2K. Conducted feasibility testing of candidate JPADS 2K technologies. FY 07: Obtain Milestone B for JPADS 2K and execute Source Selection process. Procure test prototypes, complete Design Validation (DV) of JPADS 2K. Transition JPADS 2K to SDD phase. Obtain Milestone B for JPADS 10K. Prepare RFP and execute Source Selection process for JPADS 10K. FY 08: Procure JPADS 10K Prototypes and complete 10K DemVal. Conduct Milestone B for JPADS 30K. FY 09: Purchase JPADS 30K prototypes and conduct DemVal	3194	2100	6126	5697
FY 08: Obtain Milestone B for Space Heater Convective (SHC) 120k BTUH. FY 09: Complete DT and OT for SHC 120k BTUH.			975	935
FY 08: Obtain Milestone B for Advanced Low Velocity Airdrop System (ALVADS). Procure test prototypes. FY 09: Complete DT for ALVADS.			2333	2130
FY 08/09: Evaluate utility of Multi-Mode Platform with MIRC's. Evaluate compatibility/integration on MIRC's trays with transfer case, based on feedback from the AOR regarding transfer case problems with current systems.			1007	341
FY 08/09: Execute Enhanced Containerized Delivery System (ECDS) P3I effort focused on increasing inter-modal capabilities in			1300	500

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<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>				<b>K39</b>						
accordance with the Army Battlefield Distribution Concept. Execute ECDS P3I effort focused on reducing life cycle costs by employing technologically superior, cost effective materials.											
SBIR/STTR											
Total											
				5244		3230		12341		9853	

<u><b>B. Other Program Funding Summary</b></u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
OPA3, MF9303 Control Unit, Environmental	2719	3846	11628	16992	11220	11684			Continuing	Continuing
OPA 3,M77700 Mobile Integrated Remains Collection System			9941	17925	18491	5324			Continuing	Continuing

Comment:

**C. Acquisition Strategy** Accelerate Joint Precision Aerial Delivery System (JPADS) product development and testing to transition to System Development & Demonstration and/or Production. Improved Environmental Control Unit (IECU) complete Milestone B System Development and Demonstration phase and transition to production phase (MSC).

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
4 - Advanced Component Development and Prototypes			0603804A - Logistics and Engineer Equipment - Adv Dev									K39		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Soldier Support Equipment	In-House	PM Force Sustainment Sys (FSS), Natick	1807	2136	1-4Q	189	1-4Q	5308	1-4Q	4238	1-4Q	Cont.	Cont.	
Soldier Support Equipment	In-house	CECOM, Ft Belvoir	679	278	1-4Q	75	1-4Q	1051	1-4Q	838	1-4Q	Cont.	Cont.	
Soldier Support Equipment	Contracts	Various	4229	246	1-4Q	481	1-4Q	970	1-4Q	774	1-4Q	Cont.	Cont.	
Improved Environmental Control Unit (IECU)	In-House	CECOM, Ft Belvoir		278	1-4Q	118	3-4Q					Cont.	Cont.	
Subtotal:			6715	2938		863		7329		5850		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Improved Environmental Control Unit (IECU)	In-house	CECOM, Ft Belvoir				500	2Q						500	
Subtotal:						500							500	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Soldier Support Equipment	MIPR	DTC, MD and ATC, MD	372	185	1-4Q	116	1-4Q	467	1-4Q	373	1-4Q	Cont.	Cont.	
Soldier Support Equipment	MIPR	Yuma Proving Ground, AZ, AEC	3330	1738	1-4Q	1036	1-4Q	4175	1-4Q	3335	1-4Q	Cont.	Cont.	
IECU	MIPR	Various		228	2-4Q	190	3-4Q					Cont.	Cont.	
Subtotal:			3702	2151		1342		4642		3708		Cont.	Cont.	

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

<b>BUDGET ACTIVITY</b> <b>4 - Advanced Component Development and Prototypes</b>	<b>PE NUMBER AND TITLE</b> <b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>	<b>PROJECT</b> <b>K39</b>
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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Project Management Support	In-House	PM Force Sustainment Sys (FSS), Natick	320	103	1-4Q	63	1-4Q	370	1-4Q	295	1-4Q	Cont.	Cont.	
Project Management Support	In-House	PM MEP Ft Belvoir		52	1-4Q	371	1-4Q					Cont.	Cont.	
SBIR/STTR						91								91
Subtotal:			320	155		525		370		295		Cont.	Cont.	
<b>Project Total Cost:</b>			<b>10737</b>	<b>5244</b>		<b>3230</b>		<b>12341</b>		<b>9853</b>		<b>Cont.</b>	<b>Cont.</b>	

# Schedule Profile (R4 Exhibit)

February 2007

Event Name	FY 06				FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
	(1) MS B for JPADS 10K, (2) MS B for JPADS 30 K								▲1								▲2															
(3) MS C on LCADS LV parachute							▲3																									
(4) MS C for IECU 60K											▲4																					
DT/OT on LCADS LV parachute	■	■	■	■																												
Conduct POT for IECU 60K							■																									
Conduct DV on JPADS 2K								■																								
DT on JPADS 30K																	■	■	■	■												
OT on JPADS 30K																					■	■	■	■								
DT on JPADS 10k									■	■	■	■	■	■	■	■																
OT on JPADS 10k															■	■																
(5) Obtain Milestone B decision for Joint Precision Aerial Delivery System 2k (JPADS)							▲5																									
Conduct DV on JPADS 10k.									■	■	■	■																				
(6) Conduct user evaluation for IECU 60k.												▲6																				
Conduct JPADS 2K DT, Conduct JPADS 2K OT									■	■	■	■																				

# Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY	PE NUMBER AND TITLE																PROJECT																			
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>																<b>K39</b>																			
Event Name	FY 06				FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
(7) Obtain Milestone C for JPADS 2K, (8) Obtain Milestone C for JPADS 10K													▲ 7				▲ 8																			
Conduct JPADS 30K DV																																				
(9) Milestone C JPADS 30K																																	▲ 9			
(10) Conduct Milestone B on SHC-120																	▲ 10																			
Conduct DT and OT on SHC-120																					■															
(11) Conduct Milestone C on SHC-120, (12) Conduct Milestone B on ALVADS-Heavy																									▲ 12											
Conduct DT and OT on ALVADS-Heavy																									■											
(13) Obtain Milestone C on ALVADS-Heavy, (14) Conduct Milestone B on ALVADS																	▲ 14																▲ 13			
Conduct DT on ALVADS																					■															
Execute LCADS P3I effort																	■				■															
Execute ECDS P3I efforts																	■				■				■											
Conduct MIRCS P3I																	■				■															
(15) Conduct Milestone B on Helicopter External/Internal Cargo Delivery																									▲ 15											

# Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY	PE NUMBER AND TITLE																PROJECT															
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>																<b>K39</b>															
Event Name	FY 06				FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Conduct DT/OT on Helicopter External/Internal Cargo Delivery																																
(16) Conduct Milestone C on Helicopter External/Internal Cargo Delivery																													▲ 16			
Execute FP P3I efforts to incorporate Zero-Base Camp capabilities																																
(17) Conduct Milestone B on Mobile Integrated Shop Shelter System																									▲ 17							
Conduct DT/OT on Mobile Integrated Shop Shelter System																																
(18) Conduct Milestone C on Mobile Integrated Shop Shelter System																													▲ 18			

## Schedule Detail (R4a Exhibit)

February 2007

BUDGET ACTIVITY

**4 - Advanced Component Development and Prototypes**

PE NUMBER AND TITLE

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

PROJECT

**K39**

<u>Schedule Detail</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
MS B for JPADS 10K		3Q						
MS B for JPADS 30 K			4Q					
MS C on LCADS LV parachute		1Q						
MS C for IECU 60K			2Q					
DT/OT on LCADS LV parachute	1Q - 3Q							
Conduct PQT for IECU 60K		2Q						
Conduct DV on JPADS 2K		3Q - 4Q						
DT on JPADS 30K					1Q - 4Q			
OT on JPADS 30K						1Q - 4Q		
DT on JPADS 10k			1Q - 4Q	1Q - 2Q				
OT on JPADS 10k				2Q - 3Q				
Obtain Milestone B decision for Joint Precision Aerial Delivery System 2k (JPADS)		2Q						
Conduct DV on JPADS 10k.			1Q - 3Q					
Conduct user evaluation for IECU 60k.		4Q						
Conduct JPADS 2K DT		4Q	1Q					
Conduct JPADS 2K OT			2Q - 3Q					
Obtain Milestone C for JPADS 2K				1Q				
Obtain Milestone C for JPADS 10K					2Q			
Conduct JPADS 30K DV				2Q				
Milestone C JPADS 30K								1Q
Conduct Milestone B on SHC-120			2Q					
Conduct DT and OT on SHC-120				1Q - 3Q				
Conduct Milestone C on SHC-120					2Q			
Conduct Milesone B on ALVADS-Heavy					2Q			

Conduct DT and OT on ALVADS-Heavy						1Q - 4Q	1Q	
Obtain Milestone C on ALVADS-Heavy								1Q
Conduct Milestone B on ALVADS			2Q					
Conduct DT on ALVADS				2Q - 4Q				
Execute LCADS P3I effort			1Q - 4Q	1Q - 3Q				
Execute ECDS P3I efforts			1Q - 4Q	1Q - 4Q	1Q - 4Q			
Conduct MIRCS P3I			1Q - 4Q	1Q - 4Q				
Conduct Milestone B on Helicopter External/Internal Cargo Delivery					2Q			
Conduct DT/OT on Helicopter External/Internal Cargo Delivery						1Q - 4Q	1Q - 2Q	
Conduct Milestone C on Helicopter External/Internal Cargo Delivery								1Q
Execute FP P3I efforts to incorporate Zero-Base Camp capabilities						1Q - 4Q	1Q - 4Q	
Conduct Milestone B on Mobile Integrated Shop Shelter System						1Q		
Conduct DT/OT on Mobile Integrated Shop Shelter System						4Q	1Q - 3Q	
Conduct Milestone C on Mobile Integrated Shop Shelter System							1Q	

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2007**

<b>BUDGET ACTIVITY</b> <b>4 - Advanced Component Development and Prototypes</b>			<b>PE NUMBER AND TITLE</b> <b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>						<b>PROJECT</b> <b>K41</b>		
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost	
K41 WATER AND PETROLEUM DISTRIBUTION - AD	2601	4542	2458	442	3303	2854	4826	3000		24026	

**A. Mission Description and Budget Item Justification:** Description: 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 and lubrication 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 theatre; and material and systems to decrease the logistics foot print and employment time for the transfer of liquid logistics in the theatre. The Army fights with clean fuel and drinking water. This vital equipment enables the Army to achieve its transformation vision 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. The RIFTS is a bulk fluid distribution system which will consist of four major modules: conduit deployment/retrieval module (Block I), automated pumping station (APS), command and control module (C2M) with leak detection capabilities, and computer based planning aid (Block II). The state-of-the-art technology in Block II will significantly enhance the Army's bulk fuel distribution capabilities over the Inland Petroleum Distribution System (IPDS). IPDS pumps, due to their age and condition, are only marginally supportable. The APS will increase mobility by becoming smaller in size and provide fuel throughput of 850,000 gallons of liquid per day. The C2M and the computer based planning aid will increase alertness and responsiveness by providing a quick optimum route for system layout and provide real time system operational status. The leak detection capability will provide fast and precise location of leak points.

Justification: FY08/09 funding will focus on pre-planned product improvements (P3I) of both Petroleum and Water Systems and will address capabilities that were not met during the development phase for systems that are being fielded or soon will be fielded. To do this, commercially available technologies/components will be identified and evaluated to determine if they perform the required functions at the desired performance level. If fully proven, components will be integrated into the system and perform a system-level evaluation. Improvement opportunities for the family of Fuel Supply System Points (FSSP) will include conducting failure analysis, market investigation and analysis of alternatives of long life, rapid mobile fuel storage tanks, conducting investigation of commercial/non-developmental item (NDI)/emerging automatic gauging and accounting technologies and investigate alternative conduit manufacturing techniques and materials for the Rapidly Installed Fuel Transfer System (RIFTS) to reduce life cycle costs and increase system level capability. Improvements to water distribution and purification systems will include performing evaluation of real-time in-line water quality sensors to allow by-pass of reverse osmosis membranes on military water purifiers when operating on fresh water sources, performing market investigation and testing of potential commercial devices to dose and control chlorine levels in water tankers such as the Load Handling System Water Tank Rack (Hippo) and Unit Water Pod System (Camel). FSSP P3I will continue to include technical evaluation of long life, rapid mobile fuel storage tanks, evaluation of automated tank gauging systems and select best technical approach. RIFTS P3I will continue investigating alternative conduit manufacturing techniques and materials and the analyzing technical approaches for adding bulk fuel storage capacity to the RIFTS.

<b>Accomplishments/Planned Program:</b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY07-FY08: Continues Pre-Planned Product Improvements (P3I) for the Lightweight Water Purifier (LWP) and Tactical Water		935	1464	

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2007**

BUDGET ACTIVITY	PE NUMBER AND TITLE				PROJECT	
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>				<b>K41</b>	
Purification System (TWPS). Investigate potential or organic and metal leaching in water storage systems and health effects, identify life cycle cost savings in consumables and higher reliable components, improve methods to measure service life of filtration membranes, determine upper performance limits of TWPS and LWP. In FY08, evaluate real-time-in-line water quality sensors, conduct a market investigation for devices to automatically dose and control chlorine levels in water tankers and evaluate potential candidates for performance and suitability for military environment.						
FY06: Conducted Production Qualification Testing (PQT) for the Camel	110					
FY06-FY07: Continues development and testing of Advanced Petroleum Test Kit (PTK) components, identify best technologies for system development, establish key technical and performance parameters and prepare development specifications.	63	500				
FY06: Continued development of Rapidly Installed Fuel Transfer System (RIFTS) Block I which includes components and high pressure conduit.	2428					
FY07: RIFTS Block II development of components which includes automated pumping station (APS), command and control module (C2M) with leak detection capabilities, and computer based planning aid.		1201				
FY07: Design and fabricate prototype Petroleum Quality Analysis System Full-Armored Solution (PQAS-FAS) components; test interfaces and prepare technical data.		1032				
FY07-FY09: Continues Fuel Systems P3I for Family of Fuel System Supply Points (FSSPs). Conduct market investigations and identify design standardization requirements for common pump for both fuel and water distribution systems, conduct market research for automatic tank gaging (ATG) systems and flow volume metering devices, conduct evaluation of methods to extend operational life of collapsible fuel storage tanks and investigate technical and military suitability of portable berms to contain fuel spills. In FY08, procure and test candidate common pumps for downselection and continue market research of ATG and metering devices. In FY09, evaluate performance and military usefulness of commercial ATG and metering systems and environmental testing.		750	994	442		
Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)		124				
<b>Total</b>	<b>2601</b>	<b>4542</b>	<b>2458</b>	<b>442</b>		

<b><u>B. Other Program Funding Summary</u></b>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
RDTE, 0604804.L41, Logistics and Engineer Equipment - Engineering Development	2651	7271	10312	6391	3359	3383	2049	3965	Continuing	Continuing
OPA 3, R05600, Water Purification Systems	8394	10530	41981	44338	37000	23715	23715	7089	Continuing	Continuing
OPA 3, MA6000, Distribution Systems, Petroleum & Water	68634	110194	34056	49954	86659	86920	13545	20834	Continuing	Continuing

Comment:

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY

**4 - Advanced Component Development and Prototypes**

PE NUMBER AND TITLE

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

PROJECT

**K41**

**C. Acquisition Strategy** Develop engineering prototypes or select Non-Developmental Item based on market surveys and proposals from industry. Competitive; sole source contraction. Modernization through spares.

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE										PROJECT	
4 - Advanced Component Development and Prototypes			0603804A - Logistics and Engineer Equipment - Adv Dev										K41	
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Water Purification Components (P3I)	MIPR	NFESC, Port Hueneme, CA	101			200	1Q	250	1Q			Cont.	Cont.	Cont.
Water Purification Components (P3I)	Purchase Orders	TBD	182			226	1-4Q	250	1-4Q			Cont.	Cont.	Cont.
Water Purification Components (P3I)	In-House	TARDEC, Warren, MI	408			50	1Q	57	1Q			Cont.	Cont.	Cont.
Water Purification Components (P3I)	C-CPFF	MTC, Dayton, OH				150	2Q					Cont.	Cont.	Cont.
Advanced Petroleum Test Kit	In-House	TARDEC, Warren, MI	503	63	1Q	200	1Q					Cont.	Cont.	Cont.
Advanced Petroleum Test Kit	Purchase Order	Micron Optical Incorporated, Portsmouth, VA				25	2Q					Cont.	Cont.	Cont.
Advanced Petroleum Test Kit	MIPR	NAV AIR, Patuxent River, MD				175	3Q					Cont.	Cont.	Cont.
Rapidly Installed Fuel Transfer System (RIFTS) Block I	C-CPFF	Southwest Research Institute, San Antonio, TX	780	2428	1Q							Cont.	Cont.	Cont.
RIFTS Block II	In-House	TARDEC, Warren, MI				300	1Q					Cont.	Cont.	Cont.
RIFTS Block II	C-CPFF	Southwest Research Institute, San Antonio, TX				726	2Q					Cont.	Cont.	Cont.
Petroleum Quality Analysis System (Full Armored Solution)	In-House	TARDEC, Warren, MI				155	1Q					Cont.	Cont.	Cont.
Petroleum Quality Analysis System (Full Armored Solution)	MIPR	Rock Island Arsenal, Rock Island, IL				877	1Q					Cont.	Cont.	Cont.
Fuel Systems Components (P3I)	In-House	TARDEC, Warren, MI	151			150	1Q	150	1Q	200	1Q	Cont.	Cont.	Cont.
Fuel Systems Components (P3I)	TBD	TBD				150	2Q	674	2Q	150	2Q	Cont.	Cont.	Cont.
Subtotal:			2125	2491		3384		1381		350		Cont.	Cont.	Cont.

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY

**4 - Advanced Component Development and Prototypes**

PE NUMBER AND TITLE

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

PROJECT

**K41**

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Water Purification Components (P3I)	In-House	TARDEC, Warren, MI	703			50	1Q	100	1Q			Cont.	Cont.	Cont.
Advanced Petroleum Test Kit (PTK)	In-House	TARDEC, Warren, MI	65		1Q	45	1Q					Cont.	Cont.	Cont.
RIFTS Block II	In-House	TARDEC, Warren, MI				60	1Q					Cont.	Cont.	Cont.
Fuel Systems Components (P3I)	In-House	TARDEC, Warren, MI				50	1Q	50	1Q			Cont.	Cont.	Cont.
Subtotal:			768			205		150				Cont.	Cont.	Cont.

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Water Purification Components (P3I)	In-House	TARDEC, Warren, MI	479			160	1-4Q	250	1Q			Cont.	Cont.	Cont.
Water Purification Components (P3I)	MIPR	NFESC, Port Hueneme, CA				305	1Q	257	1Q			Cont.	Cont.	Cont.
Water Purification Components (P3I)	MIPR	Aberdeen Proving Ground, Aberdeen, MD						300	2Q			Cont.	Cont.	Cont.
Advanced Petroleum Test Kit (PTK)	In-House	TARDEC, Warren, MI	507			55	1Q					Cont.	Cont.	Cont.
Fuel Systems Components (P3I)	In-House	TARDEC, Warren, MI				100	2Q	120	1Q			Cont.	Cont.	Cont.
Fuel Systems Components (P3I)	MIPR	Yuma Proving Ground, Yuma, AZ				209	1Q			92	2Q	Cont.	Cont.	Cont.
Unit Water Pod (Camel)	MIPR	Yuma Proving Ground, Yuma, AZ	1829	110	1-2Q							Cont.	Cont.	Cont.
Subtotal:			2815	110		829		927		92		Cont.	Cont.	Cont.

IV. Management Services	Contract	Performing Activity &	Total	FY 2006	FY 2006	FY 2007	FY 2007	FY 2008	FY 2008	FY 2009	FY 2009	Cost To	Total	Target

# ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE										PROJECT	
<b>4 - Advanced Component Development and Prototypes</b>			<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>										<b>K41</b>	
	Method & Type	Location	PYs Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Complete	Cost	Value of Contract
Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)						124	1Q						124	124
Subtotal:						124							124	124
<b>Project Total Cost:</b>			<b>5708</b>	<b>2601</b>		<b>4542</b>		<b>2458</b>		<b>442</b>		<b>Cont.</b>	<b>Cont.</b>	<b>Cont.</b>

# Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT																														
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>	<b>K41</b>																														
Event Name	FY 06				FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
P3I - for Hardware for the LWP/TWPS	Evaluate commercially available water purification to LWP/TWPS																															
PQT&E - Camel	Camel PQT																															
Develop Petroleum Test Kit (PTK) Technical Requirements, Design, and Test	Develop PTK																															
Develop and refine Rapidly Installed Fuel Transfer System (RIFTS) Block I	Develop High Pressure Conduit and refine RIFTS design																															
Develop and refine Rapidly Installed Fuel Transfer System (RIFTS) Block II	Develop components.																															
Petroleum Quality Analysis System-Full-Armored Solution	Test armored interfaces																															
P3I- for Family of Fuel System Supply Points (FSSPs)	Investigate/Integrate new technology																															

# Schedule Detail (R4a Exhibit)

February 2007

BUDGET ACTIVITY		PE NUMBER AND TITLE						PROJECT	
<b>4 - Advanced Component Development and Prototypes</b>		<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>						<b>K41</b>	
<u>Schedule Detail</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	
P3I - for Hardware for the LWP/TWPS		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
PQT&E - Camel	1Q - 3Q								
Develop Petroleum Test Kit (PTK) Technical Requirements, Design, and Test	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Develop and refine Rapidly Installed Fuel Transfer System (RIFTS) Block I	1Q - 4Q								
Develop and refine Rapidly Installed Fuel Transfer System (RIFTS) Block II		1Q - 4Q	1Q - 4Q	1Q - 4Q					
Petroleum Quality Analysis System-Full-Armored Solution		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q			
P3I- for Family of Fuel System Supply Points (FSSPs)		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

**February 2007**

<b>BUDGET ACTIVITY</b> <b>4 - Advanced Component Development and Prototypes</b>				<b>PE NUMBER AND TITLE</b> <b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>					<b>PROJECT</b> <b>K42</b>	
COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
K42 MATERIEL SUSTAINMENT SUPPORT AD			6182	5241	3020	480				14923

**A. Mission Description and Budget Item Justification:** This project supports Advanced Component Development and Prototypes of reformulated surface coating materials for weapon systems production and maintenance operations. These materials will increase 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. Together with project 0603779A, Environmental Quality Technology Dem/Val (E21), this project transitions advanced technologies developed under 0603728A, Environmental Quality Technology Demonstrations (025). The project tests and evaluates 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 expedites technology transition from the laboratory to operational use by demonstrating the capabilities of reformulated materials to fulfill the performance requirements outlined in Material Specifications, Depot Maintenance Work Requirements, Technical Manuals and other technical data.

<u>Accomplishments/Planned Program:</u>	FY 2006	FY 2007	FY 2008	FY 2009
Qualify, validate and approve reformulated Chemical Agent Resistant Coating (CARC) systems and other non-CARC paints			1226	1247
Qualify, validate and approve hazardous air pollutant (HAP) free solvents, thinners and cleaners			1026	829
Qualify, validate and approve chemical paint strippers containing no methylene chloride or other HAPs			1482	1128
Qualify, validate and approve reformulated sealants and adhesives for high-use applications			770	1082
Qualify, validate and approve alternative rubber-to-metal bonding materials for tracked vehicles			1678	955
<b>Total</b>			<b>6182</b>	<b>5241</b>

<u>B. Other Program Funding Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
0603728A, Environmental Quality Technology Demonstrations (025)	2979	3458	3559	3652	3725	3799	3883	3968		29023
0603779A, Environmental Quality Technology Dem/Val (E21)			1299	531						1830
0605857A, Environmental Quality Technology Mgmt Support (06I)			354	275	280	68				977

Comment:

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY

**4 - Advanced Component Development and Prototypes**

PE NUMBER AND TITLE

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

PROJECT

**K42**

**C. Acquisition Strategy** The SPOTA program is managed by the Director of the Environmental Acquisition and Logistics Sustainment Program at the Headquarters, U.S. Army Research, Development and Engineering Command (RDECOM). The SPOTA program is executed by RDECOM centers and laboratories in cooperation with the affected Life Cycle Management Commands.