

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

February 2008

BUDGET ACTIVITY		PE NUMBER AND TITLE							
4 - Advanced Component Development and Prototypes		0603804A - Logistics and Engineer Equipment - Adv Dev							
COST (In Thousands)	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	9799	37993	44141	52426	86439	15082	12332	Continuing	Continuing
526 MARINE ORIEN LOG EQ AD	97	13728	3079	3082	3082	3050	3124	Continuing	Continuing
G11 ADV ELEC ENERGY CON AD	1889	3151	3357	2898	2915	1624	729	Continuing	Continuing
G14 MATERIALS HANDLING EQUIPMENT - AD	198	267	211						866
K39 Field Sustainment Support AD	3164	12262	9790	17509	22570	5615	5498	Continuing	Continuing
K41 WATER AND PETROLEUM DISTRIBUTION - AD	4451	2442	439	3280	2834	4793	2981	Continuing	Continuing
K42 MATERIEL SUSTAINMENT SUPPORT AD		6143	5207	2999	477				14826
L04 JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD			22058	22658	54561				99277

**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 FY08 to FY09 reflect USD(AT&L) direction to move Joint Light Tactical Vehicle form MS B to MS A. This reflects adjustments in the 6.5 and 6.4 funding.

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February 2008

BUDGET ACTIVITY

PE NUMBER AND TITLE

**4 - Advanced Component Development and Prototypes**

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

<u><b>B. Program Change Summary</b></u>	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008/2009)	10103	27499	22237
Current BES/President's Budget (FY 2009)	9799	37993	44141
Total Adjustments	-304	10494	21904
Congressional Program Reductions		-243	
Congressional Rescissions			
Congressional Increases		10737	
Reprogrammings	-27		
SBIR/STTR Transfer	-277		
Adjustments to Budget Years			21904

Change Summary Explanation: Funding - FY 2009: Increase reflects USD(AT&L) direction to move Joint Light Tactical Vehicle form Milestone B to Milestone A.

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

**February 2008**

<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 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	97	13728	3079	3082	3082	3050	3124	Continuing	Continuing	

**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 Crafts (Landing Crafts Utility (LCUs), Logistic Support Vessels (LSVs), Landing Crafts Mechanized (LCM-8s) 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-Sea Ports of Debarkation (JETA-SPOD) Advanced Concept Technology Demonstration (ACTD) will be used to support the Vessel-to-Shore Bridging (VSB) component of the program. This includes funding for VSB core developmental requirements and Operational Testing/Military Utility Assessment (MUA) in FY08, and follow-on research and development funding to support the transition of VSB to an acquisition program. 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 VSB 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 to include an extended user evaluation. 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, Joint High Speed Vessel (JHSV), dry/wet gap crossings, and aerial delivery). Funding provided for the Harbor Master Command & Control Center production representative systems development.

VSB will optimize the throughput capabilities of the 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. VSB 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><u>Accomplishments/Planned Program:</u></b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY07-FY09: JETA-SPOD		2879	500
FY07-FY09: Program Support.	97	200	275
FY08: HCCC Production Representative Systems Development.		10265	
FY09 Watercraft market surveys and business analysis			304
FY09 Watercraft SLEP			2000
Small Business Innovative Research/Small Business Technology Transfer Program		384	

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

**February 2008**

<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>
Total	97	13728

<b><u>B. Other Program Funding Summary</u></b>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
OPA 3, R09900, Causeway Systems	8938								8938

Comment:

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

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

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 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
Watercraft SLEP	PWD	Naval Underwater Warfare Center, Newport, R.I.	3286					2000		Cont.	Cont.	
TSV - composite prototype hull design	MIPR	Naval Underwater Warfare Center, Newport, R.I.	4211								4211	
Watercraft market surveys/business analysis	MIPR	TBS	50					304			354	
HCCC Design	MIPR	PEOC3T			2Q	10649					10649	
JETA-SPOD-Vessel to Shore Bridging (VSB)	MIPR	USAPACOM J14-12, Camp Smith, Hawaii	1800			2879		500		Cont.	Cont.	
Subtotal:			9347			13528		2804		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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							Cont.	Cont.	
JETA-SPOD-VSB	MIPR	TACOM, PSID, Warren, MI			1-2Q					Cont.	Cont.	

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

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>		
Subtotal:			12178							Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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 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	960	95		200		275			1530	
HCCC	MIPR	PM Force Projection, TACOM, Warren, MI								Cont.	Cont.	
JETA-SPOD-VSB	MIPR	PM Force Projection, TACOM, Warren, MI								Cont.	Cont.	
SBIR/STTR				2							2	
Subtotal:			960	97		200		275		Cont.	Cont.	
<b>Project Total Cost:</b>			<b>25056</b>	<b>97</b>		<b>13728</b>		<b>3079</b>		<b>Cont.</b>	<b>Cont.</b>	

<b>Schedule Detail (R4a Exhibit)</b>	<b>February 2008</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 2008**

<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 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	1889	3151	3357	2898	2915	1624	729	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 of 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).

<b><u>Accomplishments/Planned Program:</u></b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY07: Evaluated and conducted limited testing of specific commercial technologies for possible consideration as materiel solutions to STEP component and/or system level requirements.	1889		
FY08: Evaluation and testing of various technologies related to Tactical Electric Power across the Army power spectrum aimed at technology gaps to meet Army User requirements. These efforts support the Small Tactical Power (STEP) program, the Advanced Medium Mobile Power Sources (AMMPS) program and the Large Advanced Mobile Power Sources (LAMPS) program.		3066	
FY09: Evaluation and testing of various technologies related to Tactical Electric Power across the Army power spectrum aimed at technology gaps to meet Army User requirements. These efforts support the Small Tactical Electric Power (STEP) program, the Advanced Medium Mobile Power Sources (AMMPS) program and the Large Advanced Mobile Power Sources (LAMPS) program.			3357
Small Business Innovative Research/Small Business Technology Transfer Programs		85	
<b>Total</b>	<b>1889</b>	<b>3151</b>	<b>3357</b>

<b><u>B. Other Program Funding Summary</u></b>	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 194	11036	11026	6368	1396	1397	2366	1549	Continuing	Continuing
OPA 3, Generators and Associated Eq. MA9800	141581	110723	217749	162861	130790	133008	9854	Continuing	Continuing

Comment:

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

February 2008

BUDGET ACTIVITY

**4 - Advanced Component Development and Prototypes**

PE NUMBER AND TITLE

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

PROJECT

**G11**

**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 2008

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 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	750	1Q	193	2Q	315	1Q	Cont.	Cont.	
AMMPS Components	MIPR	CECOM - Belvoir	2072			279	2Q	484		Cont.	Cont.	
LAMPS Components	MIPR	CECOM - Belvoir				122	2Q	180	1Q	Cont.	Cont.	
Subtotal:			3043	750		594		979		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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	347	2Q	495	1Q	Cont.	Cont.	
AMMPS Components	MIPR	CECOM-Belvoir	671			504	2Q	682	1Q	Cont.	Cont.	
LAMPS Components	MIPR	CECOM-Belvoir				220	2Q	295	1Q	Cont.	Cont.	
Subtotal:			1341	981		1071		1472		Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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			421	2Q	243	2Q	Cont.	Cont.	
AMMPS Components	MIPR	CECOM-Belvoir	150			628	2Q	334		Cont.	Cont.	
LAMPS Components	MIPR	CECOM-Belvoir				257	2Q	143	2Q	Cont.	Cont.	
Subtotal:			939			1306		720		Cont.	Cont.	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award	FY 2008 Cost	FY 2008 Award	FY 2009 Cost	FY 2009 Award	Cost To Complete	Total Cost	Target Value of

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

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				Date		Date		Date		Contract
STEP Components	In-house	In-house	301	158	1-4Q	60	1-4Q	62	1-4Q	Cont.	Cont.
AMMPS Components	In-House	In-house	277			60	1-4Q	62	1-4Q	Cont.	Cont.
LAMP Components						60	1-4Q	62	1-4Q	Cont.	Cont.
Subtotal:			578	158		180		186		Cont.	Cont.
<b>Project Total Cost:</b>			<b>5901</b>	<b>1889</b>		<b>3151</b>		<b>3357</b>		<b>Cont.</b>	<b>Cont.</b>

# Schedule Profile (R4 Exhibit)

February 2008

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 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																												
<b>STEP Program</b>																																																								
Assess Commercially Available Components																																																								
Test Commercially Available Components																																																								
Develop Proof of Principle Prototype (Commercial Components)																																																								
(1) Complete Proof of Principle Prototype																																																								
(2) Complete Test and Evaluation																																																								
(3) Transfer to System Development & Demonstration																																																								
<b>LAMPS Program</b>																																																								
Assess Commercially Available Components																																																								
Test Commercially Available Components																																																								
<b>AMMPS Program</b>																																																								
Assess Commercially Available Components																																																								
Test Commercially Available Components																																																								

# Schedule Detail (R4a Exhibit)

February 2008

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 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	1Q - 4Q	
Assess Commercially Available Components		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Test Commercially Available Components		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Develop Proof of Principle Prototype (Commercial Components)				1Q - 4Q	1Q - 3Q			
Complete Proof of Principle Prototype					3Q			
Complete Test and Evaluation					4Q			
Transfer to System Development & Demonstration						1Q		
LAMPS Program		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Assess Commercially Available Components		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Test Commercially Available Components		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
AMMPS Program		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Assess Commercially Available Components		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Test Commercially Available Components		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	

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

**February 2008**

<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 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	3164	12262	9790	17509	22570	5615	5498	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 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.

<u>Accomplishments/Planned Program:</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 07: Obtained Milestone C for Low Cost Aerial Delivery Low Velocity Parachute (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 increases to existing weight capacity.	20	666	278
FY 07: Continued engineering and logistics data deliverables. Completed Production Qualification Testing (PQT), logistics demonstration and user evaluation for the 60K IECU. Obtained Milestone C Full Rate Production Decision for the 60K IECU.	1020		
FY07: Obtained Milestone B for JPADS 2K and executed Source Selection process. Started design validation for JPADS 2K. Transitioned JPADS 2K to SDD phase. Obtained Milestone B, prepared RFP and Source Selection process for JPADS 10K. FY08: Procure JPADS 10K prototypes and complete JPADS 10K design validation. Obtain Milestone A for JPADS 30K. FY09: Transition JPADS 30K from ATO; and develop and procure JPADS 30K prototypes. Continue JPADS 10K guidance and navigation, system hardware and software, integration and testing.	2124	6367	5634
FY08: Award Advanced Component development contract for the Space Heater Convective, 120,000 British Thermal Unit Heating (BTUH) (SHC 120K).FY09: Complete Advanced Development of the SHC 120K and prepare for transition to Developmental Testing (DT) and Operational Testing (OT)		888	944
FY 08: Obtain Milestone A for ALVADS Advanced Cargo Parachute Release System (ACPRS). Procure test prototypes from multiple vendors and conduct advanced component flight tests. FY 09: Obtain Milestone B for ACPRS and award competitive development contract. Restart Milestone B for Advanced Low Velocity Airdrop System-Light (ALVADS-L).		2333	2101
FY 08/09: Evaluate utility of Multi-Mode Platform with Mobile Integrated Remains Collection System (MIRCS). Evaluate compatability / integration on MIRCS trays with transfer case, based on feedback from the AOR regarding transfer case problems with current systems. FY 09: Compete testing and update documentation.		555	333

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<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>	<b>K39</b>	
FY 08/09: Execute Enhanced Containerized Delivery System (ECDS) P3I efforts focused on expanding recovery parachute options to include G-11 recovery parachutes and a standard rigging configuration for C-130 and C-17 aircraft, while also increasing inter-modal capabilities. Execute Low Cost Aerial Delivery System (LCADS) P3I efforts to include evaluating LCADS Hi-V and Low-V parachutes as cost effective recovery system options for the Air Force and Joint Improvised Explosive Device Defeat Organization (JEIDDO) sponsored effort for an expanded 5-10K pound, high altitude Improved Container Delivery System (CDS) capability. Additionally, LCADS P3I efforts will include Type Classification of the Low Cost Low Altitude (LCLA) Capability and transition to sustainment.		1110	500
Small Business Innovative Research/Small Business Technology Transfer Program		343	
<b>Total</b>	<b>3164</b>	<b>12262</b>	<b>9790</b>

<b><u>B. Other Program Funding Summary</u></b>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
OPA3, MF9303 Control Unit, Environmental		11549	11201	12032	11668	110		Continuing	Continuing
OPA 3,M77700 Mobile Integrated Remains Collection System		9874	17803	18335	5282			Continuing	Continuing
OPA 3, MA7806 Precision Airdrop		199	17953	21826	22850	15355	14970	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 2008

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 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	3943	175	1-4Q	956	1-4Q	4206	1-4Q	Cont.	Cont.	
Soldier Support Equipment	In-House	NSC, Natick	957	75	1-4Q	1036	1-4Q	835	1-4Q	Cont.	Cont.	
Soldier Support Equipment	Contracts	Various	4475	471	1-4Q	5161	1-4Q	771	1-4Q	Cont.	Cont.	
Improved Environmental Control Unit (IECU)	In-House	CECOM, Ft Belvoir	278	108	3-4Q					Cont.	Cont.	
Subtotal:			9653	829		7153		5812		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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 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	557	114	1-4Q	457	1-4Q	371	1-4Q	Cont.	Cont.	
Soldier Support Equipment	MIPR	Yuma Proving Ground, AZ, AEC	5068	1018	1-4Q	4082	1-4Q	3314	1-4Q	Cont.	Cont.	
IECU	MIPR	Various	228	187	3-4Q					Cont.	Cont.	
Subtotal:			5853	1319		4539		3685		Cont.	Cont.	

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

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>K39</b>
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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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	423	63	1-4Q	227	1-4Q	293	1-4Q	Cont.	Cont.	
Project Management Support	In-House	PM MEP Ft Belvoir	52	362	1-4Q					Cont.	Cont.	
SBIR/STTR				91		343					434	
Subtotal:			475	516		570		293		Cont.	Cont.	
<b>Project Total Cost:</b>			<b>15981</b>	<b>3164</b>		<b>12262</b>		<b>9790</b>		<b>Cont.</b>	<b>Cont.</b>	

# Schedule Profile (R4 Exhibit)

February 2008

Event Name	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) MS B for JPADS 10K, (2) MS A for JPADS 30 K, (3) MS C on LCADS LV parachute, (4) MS C for IECU 60K  Conduct POT for IECU 60K  Conduct DV on JPADS 2K  DT on JPADS 30K  (5) Milestone B for Joint Precision Aerial Delivery System 2K (JPADS 2K)  Conduct DV on JPADS 10k.  (6) Conduct user evaluation for IECU 60k.  Conduct JPADS 30K DV  (7) Obtain Milestone B for SHC 120K  (8) Award SDD contract for SHC 120K  Conduct DT for SHC 120K  (9) Obtain Milestone C for SHC 120K, (10) Restart Milestone B on ALVADS-Light, (11) Milestone B on ACPRS	▲3			▲1	▲4	▲2																					

# Schedule Profile (R4 Exhibit)

February 2008

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 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
Execute LCADS P3I effort (LCLA/ICDS)																												
Execute ECDS P3I efforts																												
Conduct MIRCS P3I																												
Conduct DT and OT on MIRCS redesign																												
(12) Conduct Milestone B on Helicopter External/Internal Cargo Delivery													▲ 12															
Conduct DT/OT on Helicopter External/Internal Cargo Delivery																												
Execute FP P3I efforts to incorporate Zero-Base Camp capabilities																												
(13) Conduct Milestone B on Mobile Integrated Shop Shelter System													▲ 13															
Conduct DT/OT on Mobile Integrated Shop Shelter System																												
(14) Conduct Milestone C on Mobile Integrated Shop Shelter System																					▲ 14							
(15) Milestone A for ACPRS					▲ 15																							
(16) Conduct MS B on JMIDS Platform													▲ 16															

(17) Conduct MS C on JMIDS Platform  
 0603804A (R39)  
 Field Sustainment Support AD

## Schedule Detail (R4a Exhibit)

February 2008

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>	
<u>Schedule Detail</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	4Q							
MS A for JPADS 30 K		3Q						
MS C on LCADS LV parachute	1Q							
MS C for IECU 60K		2Q						
Conduct PQT for IECU 60K	2Q							
Conduct DV on JPADS 2K	3Q - 4Q	1Q						
DT on JPADS 30K					1Q - 4Q			
Milestone B for Joint Precision Aerial Delivery System 2K (JPADS 2K)	2Q							
Conduct DV on JPADS 10k.		2Q - 4Q						
Conduct user evaluation for IECU 60k.	4Q							
Conduct JPADS 30K DV				2Q - 4Q				
Obtain Milestone B for SHC 120K		4Q						
Award SDD contract for SHC 120K			4Q					
Conduct DT for SHC 120K			2Q - 4Q					
Obtain Milestone C for SHC 120K				3Q				
Restart Milestone B on ALVADS-Light			4Q					
Milestone B on ACPRS			3Q					
Execute LCADS P3I effort (LCLA/ICDS)		1Q - 4Q	1Q - 4Q					
Execute ECDS P3I efforts		1Q - 4Q	1Q - 4Q					
Conduct MIRCS P3I		1Q - 4Q	1Q - 4Q					
Conduct DT and OT on MIRCS redesign	4Q	1Q - 2Q						
Conduct Milestone B on Helicopter External/Internal Cargo Delivery				2Q				
Conduct DT/OT on Helicopter External/Internal Cargo Delivery					1Q - 4Q	1Q - 2Q		

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	
Milestone A for ACPRS		2Q					
Conduct MS B on JMIDS Platform				2Q			
Conduct MS C on JMIDS Platform							2Q

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

**February 2008**

<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 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	4451	2442	439	3280	2834	4793	2981	Continuing	Continuing

**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.

Justification: FY 2009 funding will focus on Petroleum and Water Systems 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. 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 improvements 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.

<b><u>Accomplishments/Planned Program:</u></b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY07-FY08: Continues improvements for the Lightweight Water Purifier (LWP) and Tactical Water 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.	935	1380	
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.	409		
FY07: RIFTS Block II development of components which includes automated pumping station (APS), command and control module	1325		

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

**February 2008**

<b>BUDGET ACTIVITY</b>	<b>PE NUMBER AND TITLE</b>			<b>PROJECT</b>
<b>4 - Advanced Component Development and Prototypes</b>	<b>0603804A - Logistics and Engineer Equipment - Adv Dev</b>			<b>K41</b>
(C2M) with leak detection capabilities, and computer based planning aid.				
FY07: Design and fabricate prototype Petroleum Quality Analysis System Enhanced components; test interfaces and prepare technical data.	1032			
FY07-FY09: Continues Fuel Systems improvements 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 gauging (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	439	
Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)		68		
<b>Total</b>	<b>4451</b>	<b>2442</b>	<b>439</b>	

<b><u>B. Other Program Funding Summary</u></b>	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	7030	8955	5058	3335	3359	2035	3940	Continuing	Continuing
OPA 3, R05600, Water Purification Systems	19931	43719	51164	44915	18976	20960	4845	Continuing	Continuing
OPA 3, MA6000, Distribution Systems, Petroleum & Water	111423	34173	61545	105999	91800	12440	9984	Continuing	Continuing

Comment:

**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 2008

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 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 Improvements	MIPR	NFESC, Port Hueneme, CA	101	200	1Q	200	1Q			Cont.	Cont.	Cont.
Water Purification Components Improvements	Purchase Orders	TBD	182	226	1-4Q	216	1-4Q			Cont.	Cont.	Cont.
Water Purification Components Improvements	In-House	TARDEC, Warren, MI	408	50	1Q	57	1Q			Cont.	Cont.	Cont.
Water Purification Components Improvements	C-CPFF	MTC, Dayton, OH		150	2Q					Cont.	Cont.	Cont.
Advanced Petroleum Test Kit	In-House	TARDEC, Warren, MI	566	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		84	3Q					Cont.	Cont.	Cont.
Rapidly Installed Fuel Transfer System (RIFTS) Block I	C-CPFF	Southwest Research Institute, San Antonio, TX	3208							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 Enhanced	In-House	TARDEC, Warren, MI		155	1Q					Cont.	Cont.	Cont.
Petroleum Quality Analysis System Enhanced	MIPR	Rock Island Arsenal, Rock Island, IL		877	1Q					Cont.	Cont.	Cont.
Fuel Systems Components Improvements	In-House	TARDEC, Warren, MI	151	150	1Q	150	1Q	200	1Q	Cont.	Cont.	Cont.
Fuel Systems Components Improvements	TBD	TBD		150	2Q	674	2Q	147	2Q	Cont.	Cont.	Cont.
Subtotal:			4616	3293		1297		347		Cont.	Cont.	Cont.

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

**4 - Advanced Component Development and Prototypes**

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

**K41**

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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 Improvements	In-House	TARDEC, Warren, MI	703	50	1Q	100	1Q			Cont.	Cont.	Cont.
Advanced Petroleum Test Kit (PTK)	In-House	TARDEC, Warren, MI	65	45	1Q					Cont.	Cont.	Cont.
RIFTS Block II	In-House	TARDEC, Warren, MI		60	1Q					Cont.	Cont.	Cont.
Fuel Systems Components Improvements	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 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 Improvements	In-House	TARDEC, Warren, MI	479	160	1-4Q	250	1Q			Cont.	Cont.	Cont.
Water Purification Components Improvements	MIPR	NFESC, Port Hueneme, CA		305	1Q	257	1Q			Cont.	Cont.	Cont.
Water Purification Components Improvements	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 Improvements	In-House	TARDEC, Warren, MI		100	2Q	120	1Q			Cont.	Cont.	Cont.
Fuel Systems Components Improvements	MIPR	Yuma Proving Ground, Yuma, AZ		209	1Q			92	2Q	Cont.	Cont.	Cont.
Unit Water Pod (Camel)	MIPR	Yuma Proving Ground, Yuma, AZ	1939							Cont.	Cont.	Cont.
Subtotal:			2925	829		927		92		Cont.	Cont.	Cont.

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

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>K41</b>
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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)				124	1Q	68					192	124
Subtotal:				124		68					192	124
<b>Project Total Cost:</b>			<b>8309</b>	<b>4451</b>		<b>2442</b>		<b>439</b>		<b>Cont.</b>	<b>Cont.</b>	<b>Cont.</b>

# Schedule Profile (R4 Exhibit)

February 2008

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 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
P3I - for Hardware for the LWP/TWPS	Evaluate commercially available water purification to LWP/TWPS																											
Develop Petroleum Test Kit (PTK) Technical Requirements, Design, and Test																												
					Develop PTK																							
Develop and refine Rapidly Installed Fuel Transfer System (RIFTS) Block II																												
					Develop components.																							
P3I- for Family of Fuel System Supply Points (FSSPs)	Investigate/Integrate new technology																											

**Schedule Detail (R4a Exhibit)**

**February 2008**

<b>BUDGET ACTIVITY</b>		<b>PE NUMBER AND TITLE</b>					<b>PROJECT</b>	
<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 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								
Develop Petroleum Test Kit (PTK) Technical Requirements, Design, and Test	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Develop and refine Rapidly Installed Fuel Transfer System (RIFTS) Block I								
Develop and refine Rapidly Installed Fuel Transfer System (RIFTS) Block II	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 2008**

<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 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		6143	5207	2999	477				14826

**A. Mission Description and Budget Item Justification:** This project supports Advanced Component Development and Prototypes of reformulated paints, paint removers, cleaners and other surface coating materials for weapon systems production and maintenance operations. The project increases 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 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. 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. Test and evaluation activities are executed by Research, Development and Engineering Command (RDECOM) centers and laboratories in cooperation with the affected Life Cycle Management Commands. Materials are being demonstrated at ten different Army facilities in order to minimize the disruption of materiel maintenance operations at any one facility.

<u>Accomplishments/Planned Program:</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Qualify, validate and approve reformulated Chemical Agent Resistant Coating (CARC) systems and other non-CARC paints		2213	3403
Qualify, validate and approve hazardous air pollutant (HAP) free solvents, thinners and cleaners		1474	470
Qualify, validate and approve chemical paint strippers containing no methylene chloride or other HAPs		624	705
Qualify, validate and approve reformulated sealants and adhesives for high-use applications		227	588
Qualify, validate and approve alternative rubber-to-metal bonding materials for tracked vehicles		1434	41
Small Business Innovation Research/Small Business Technology Transfer		171	
<b>Total</b>		<b>6143</b>	<b>5207</b>

<u>B. Other Program Funding Summary</u>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
0603728A, Environmental Quality Technology Demonstrations (025)	3458	3559	3652	3725	3799	3883	3968		29023
0603779A, Environmental Quality Technology Dem/Val (E21)		1299	531						1830

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

**February 2008**

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>K42</b>
0605857A, Environmental Quality Technology Mgmt Support (06I)	354	275	280	68		977

Comment:

**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.

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

**February 2008**

<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>L04</b>	
COST (In Thousands)	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
L04 JOINT LIGHT TACTICAL VEHICLE (JLTV) - AD			22058	22658	54561				99277

**A. Mission Description and Budget Item Justification:** Joint Light Tactical Vehicle (JLTV): FY08 and future funding supports the development and testing of the JLTV, being developed as a joint system between the Army and the Marine Corps. The Honorable John Young, Defense Acquisition Executive, in a 10 September 2007 memorandum directed the Army and Navy Acquisition Executives to continue the JLTV acquisition program by successfully achieving a Milestone (MS) A decision which would be followed by a robust technology demonstration phase. As stated in Mr. Young's memorandum, this approach could reduce System Development & Demonstration (SDD) phase activities, costs and technology risks. MS A occurred on 05 December 2007. In order to support the memorandum the Department has requested that the FY08 dollars, previously found in PE 0604642A, project E40 be moved to PE 0603804A, project L04.

The JLTV concept is based on a Family of Vehicles (FOV) focused on integrated scalable personnel protection, payload, performance and regaining vehicle agility and mobility required of the light tactical vehicles fleet while addressing passenger protection. JLTV will also reduce system life cycle cost through commonality of replacement spare and repair parts at the sub-assembly and component level. As a light tactical system, the JLTV will provide defensive measures covering troops while in transport, increase payload capability, maintain configuration management to reduce or improve the logistics footprint, and reduce onerous soldier and Marine workload associated with system operation and field maintenance activities.

<b><u>Accomplishments/Planned Program:</u></b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JLTV Program Management			3000
JLTV Variant Prototype Design, Development and Fabrication			12558
JLTV Developmental Test and Evaluation			6500
<b>Total</b>			<b>22058</b>

<b><u>B. Other Program Funding Summary</u></b>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
Force Service Support Group 0206315M, Joint Light Tactical Vehicle			624			25000	106276		131900

Comment:

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

February 2008

BUDGET ACTIVITY

**4 - Advanced Component Development and Prototypes**

PE NUMBER AND TITLE

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

PROJECT

**L04**

**C. Acquisition Strategy** The JLTV Acquisition Strategy for the Technology Demonstration (TD) phase, FY08-11, is to competitively award multiple contracts. During this phase, the Contractors will be required to design, fabricate, and test complete demonstrators (vehicles and trailers) for JLTV payload Categories A (Battlespace Awareness), B (Force Application), and C (Focused Logistics). All of the demonstrators will undergo developmental testing, as well as limited user assessments, in a relevant environment at Government test facilities. The goal is to ensure the best family of demonstrators is mature in terms of supporting technology readiness and full system integration. This will ensure minimum Technology Readiness Levels (TRL) of 6 across all areas, allowing a key MS B prerequisite to be met.

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
4 - Advanced Component Development and Prototypes			0603804A - Logistics and Engineer Equipment - Adv Dev							L04		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
JLTV Variant Prototype Design, Development and Fabrication		TBD						12558	1-4Q		12558	
JLTV Program Management		TACOM, Warren, MI						3000	1-4Q		3000	
Subtotal:								15558			15558	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
Subtotal:												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
JLTV Developmental Test and Evaluation		TBD						6500	2-4Q		6500	
Subtotal:								6500			6500	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	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
Subtotal:												

# ARMY RDT&E COST ANALYSIS (R3)

February 2008

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>L04</b>
<b>Project Total Cost:</b>						<b>22058</b>	<b>22058</b>

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# Schedule Profile (R4 Exhibit)

February 2008

Event Name	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				
	Prototype Development JLTV Developmental Test and Evaluation (1) Request for Proposal (RFP) Source Selection Evaluation (2) MS B (3) Contract Award									Prototype				JLTV Test and Evaluation				RFP 				SSEB 				MS B 				Award 		

**Schedule Detail (R4a Exhibit)**

**February 2008**

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>L04</b>	
<u>Schedule Detail</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>	
Prototype Development		4Q	1Q - 4Q					
JLTV Developmental Test and Evaluation			2Q - 4Q	1Q - 4Q				
Request for Proposal (RFP)					1Q			
Source Selection Evaluation					1Q - 2Q			
MS B					2Q			
Contract Award					2Q			