ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**

COST (In Thousands)		FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost		9543	13184	13216	12692	13276	19180	19216	Continuing	Continuing
526	MARINE ORIEN LOG EQ AD	115	2949	3099	3103	3105	3104	3104	0	29329
G11	ADV ELEC ENERGY CON AD	1448	1820	2053	2192	2391	1148	1158	0	15100
G14	MATERIALS HANDLING EQUIPMENT - AD	0	196	205	207	212	207	207	0	1544
K39	Field Sustainment Support AD	4157	4954	3267	3520	3985	11275	11272	Continuing	Continuing
K41	WATER AND PETROLEUM DISTRIBUTION - AD	3823	3265	4592	3670	3583	3446	3475	0	30250

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
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**

B. Program Change Summary	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2006)	15993	13375	12878
Current BES/President's Budget (FY 2007)	9543	13184	13216
Total Adjustments	-6450	-191	338
Congressional Program Reductions	-330	-58	
Congressional Rescissions		-133	
Congressional Increases			
Reprogrammings	-6120		
SBIR/STTR Transfer			
Adjustments to Budget Years			338

Change Summary Explanation: Funding - FY05: Reduced ($6.120) Funds reduced to support a higher Army requirement.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**526**

COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
526 MARINE ORIEN LOG EQ AD	115	2949	3099	3103	3105	3104	3104	0	29329

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 weakiest link and takes the full combination of all assets to accomplish. Also included in this combined capability is the Harbormaster Command and Control Center (HCCC) which will provide continuous command, control, and coordination of vessel activities in support of LOTS/JLOTS using communication over tactical, commerical and satellite systems; real-time vessel tracking, in-transit visiblity, movement tracking, and full joint interoperability in support of Battlespace Awareness (BA) and Command and Control (C2) activities within the LOTS/JLOTS missions/exercises.

Joint Enable Theater Access-Sea Ports of Debarkation (JETA-SPOD) assists to identify and develop Service and Joint warfighting requirements and capabilities to gain theater access for the rapid deployment of Joint forces. The Lightweight Modular Causeway System (LMCS) is transported on and rapidly employed by the Army's Theater Support Vessel (TSV) and High Speed Vessel (HSV). It increases the number of ports interfaced with by bridging the gap between shore and point off-shore of sufficient depth for TSV/HSV to operate.

Funding for the JETA-SPOD Advanced Concept Technology Demonstration (ACTD) will be used to support core requirements for the LMCS component of the program that includes Operational Testing/Military Utility Assessment (MUA). Funding will provide a more robust and broader MUA designed to adequately test and assess the LMCS for military utility under the lead of the USPACOM ACTD Operational Manager (OM). This will allow the OM to maximize the warfighter support of the ACTD. The risk will be mitigated ensuring the technology receives optimum test and evaluation to meet the warfighting operational requirements. Funding will permit the development of an additional 50-60 foot section. The result is that the additional section will allow expanded technical development, testing, and utility assessment for the multiple operational uses and employment methods of the LMCS (eg. Army Watercraft, JHSV, wet gap crossing, aerial delivery). More operationally useful residuals will also be availabe to USAPACOM at the end of the ACTD.

Harbor Master Command and Control Center (HCCC) will provide Command, Control and Communications capability to the Transportation Harbormaster Operations Detachment (THOD) with joint interoperability to tactically control vessels conducting intra-theater movements (management vessel movements and waterfront facilities). The HCCC System will provide the THOD with the joint capability to communicate between the Army, Navy, Air Force, United States Marine Corps (USMC), Coast Guard, Coalition, civilian and host nation ships via High Freqency (HF), Ultra High Frequency (UHF), Very High Frequency (VHF), (secure and non-secure voice and data), tactical and satellite modes.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007

FY06-FY07: JETA-SPOD	0	1899	2099
FY06-FY07: Initiates HCCC Design.	0	1000	1000
FY05: Completed Theater Support Vessel (TSV) advanced development to include programmatic documentation (i.e. TEMP, threat assessment, acquisition strategy, etc.)	115	0	0
FY06 Medium Tug-Market Survey	0	50	0
Total	115	2949	3099

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
RDTE, 0604804A, 461, Marine Oriented Logistics, Engineering	54737	0	0	0	0	0	0	CONT	CONT
OPA 3, R97500, Causeway Systems	4483	8879	8974	9031	12187	12478	12669	CONT	CONT

C. Acquisition Strategy Not applicable for this item

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603804A - Logistics and Engineer Equipment - Adv Dev

PROJECT
526

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TSV Studies/Development	PWD	Naval Underwater Warfare Center, Newport, R.I.	3286	0		0		0		Continue	3286	0
TSV - composite prototype hull design	MIPR	Naval Underwater Warfare Center, Newport, R.I.	4211	0		0		0		0	4211	0
Medium Tug Market Survey	MIPR	TBS	0	0		50	2-3Q	0		0	50	0
HCCC Design	PWD	TBD	0	0		400	1-2Q	300		0	700	0
JETA-SPOD-Lightweight Modular Causeway System (LMCS)	MIPR	USAPACOM J14-12, Camp Smith, Hawaii	0	0		1249	1-2Q	1399		Continue	2648	0
Subtotal:			7497	0		1699		1699		Continue	10895	0

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TSV/Matrix Support	MIPR	TACOM CBU, Warren, MI	4366	0		0		0		Continue	4366	0
TSV - composite prototype hull design	MIPR	CASCOM, Ft. Lee, VA	5240	0		0		0		Continue	5240	0
TSV/Matrix Support	MIPR	TARDEC, Warren, MI/ICI	170	0		0		0		0	170	0
TSV/In-house	MIPR	PM Force Projection, Warren, MI	2190	0		0		0		Continue	2190	0
HCCC	MIPR	TACOM, PSID, Warren, MI	0	0		50	1-2Q	100		Continue	150	0
JETA-SPOD-LMCS	MIPR	TACOM, PSID, Warren, MI	0	0		250	1-2Q	250	1-2Q	Continue	500	0
Subtotal:			11966	0		300		350		Continue	12616	0

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TSV	MIPR	DTC/ATEC, MD	1071	0		0		0		Continue	1071	0
TSV	MIPR	PM WIN-T	1500	0		0		0		0	1500	0
HCCC	MIPR	USAFTCFE, Ft. Eustis, VA	100	0		350		300		Continue	750	0
Subtotal:			2671	0		350		300		Continue	3321	0

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TSV/In-house	MIPR	PM Force Projection, TACOM, Warren, MI	510	115		0		0		0	625	0
HCCC	MIPR	PM Force Projection, TACOM, Warren, MI	0	0		200		300		Continue	500	0
JETA-SPOD-LMCS	MIPR	PM Force Projection, TACOM, Warren, MI	0	0		400		450		Continue	850	0
Subtotal:			510	115		600		750		Continue	1975	0

Project Total Cost:			**22644**	**115**		**2949**		**3099**		**Continue**	**28807**	**0**

Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603804A - Logistics and Engineer Equipment - Adv Dev

PROJECT
526

Event Name	FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11			
	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) HCCC Design Contract Award						1																						

Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**526**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
HCCC Design Contract Award		2Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**G11**

COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
G11 ADV ELEC ENERGY CON AD	1448	1820	2053	2192	2391	1148	1158	0	15100

A. Mission Description and Budget Item Justification: The Mobile Electric Power (MEP) program was established by the Department of Defense to develop a modernized, standard family of mobile electric power sources for all Services throughout the Department of Defense. This project provides concept and technology development that will improve the performance, mobility, readiness and survivability of the next generation power sources in support of the Army. It support initiatives that are essential to the development and fielding to modernized Mobile Electric Power (MEP) sources from 0.5 KW to 920 KW that comply with environmental statutes and provide lower noise, improved fuel and electrical efficiency, significantly reduced weight, enhanced portability, improved reliability, and maintainability.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY05: Developed Small Tactical Electric Power (STEP) proof of principle prototypes/test technologies	1448	0	0
FY06: Continues STEP proof of principle prototype development	0	1820	0
FY07: Tests STEP proof of principle prototype and transition to System Development and Demonstration	0	0	1880
FY07: Initiates Large Advanced Mobile Power Sources (LAMPS) Program/components	0	0	173
Total	1448	1820	2053

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
RDT&E:PE0604804A, 194 Engine Driven Generators	5239	7625	14514	6818	4465	1721	1730	CONT	CONT
OPA 3, Generators and Associated Eq. MA9800	128929	42648	69468	107999	208991	198497	168542	CONT	CONT

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

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603804A - Logistics and Engineer Equipment - Adv Dev

PROJECT
G11

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	MIPR	CECOM - Belvoir	971	0		0		0		0	971	0
STEP Prototypes	MIPR	CECOM - Belvoir	0	880	1Q	1249	2Q	790	2Q	0	0	0
LAMPS Components	MIPR	CECOM - Belvoir	0	0		0		173	2Q	Continue	0	0
Subtotal:			971	880		1249		963		Continue	971	0

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	MIPR	CECOM-Belvoir	670	0		0		0		0	670	0
STEP Prototypes	MIPR	CECOM-Belvoir	0	400	1Q	271	1Q	200	1Q	0	871	0
Subtotal:			670	400		271		200		0	1541	0

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	MIPR	CECOM-Belvoir	748	41	1Q	0		0		0	0	0
STEP Prototypes	MIPR	CECOM-Belvoir	0	0		150	2Q	740	2Q	0	890	0
Subtotal:			748	41		150		740		0	890	0

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
STEP Components	In-house	PEO In-house	301	0		0		0		0	301	0

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**G11**

STEP Prototypes	In-House	PEO In-house	0	127	1Q	150	1Q	150	1Q	0	427	0
Subtotal:			301	127		150		150		0	728	0
Project Total Cost:			**2690**	**1448**		**1820**		**2053**		**0**	**4130**	**0**

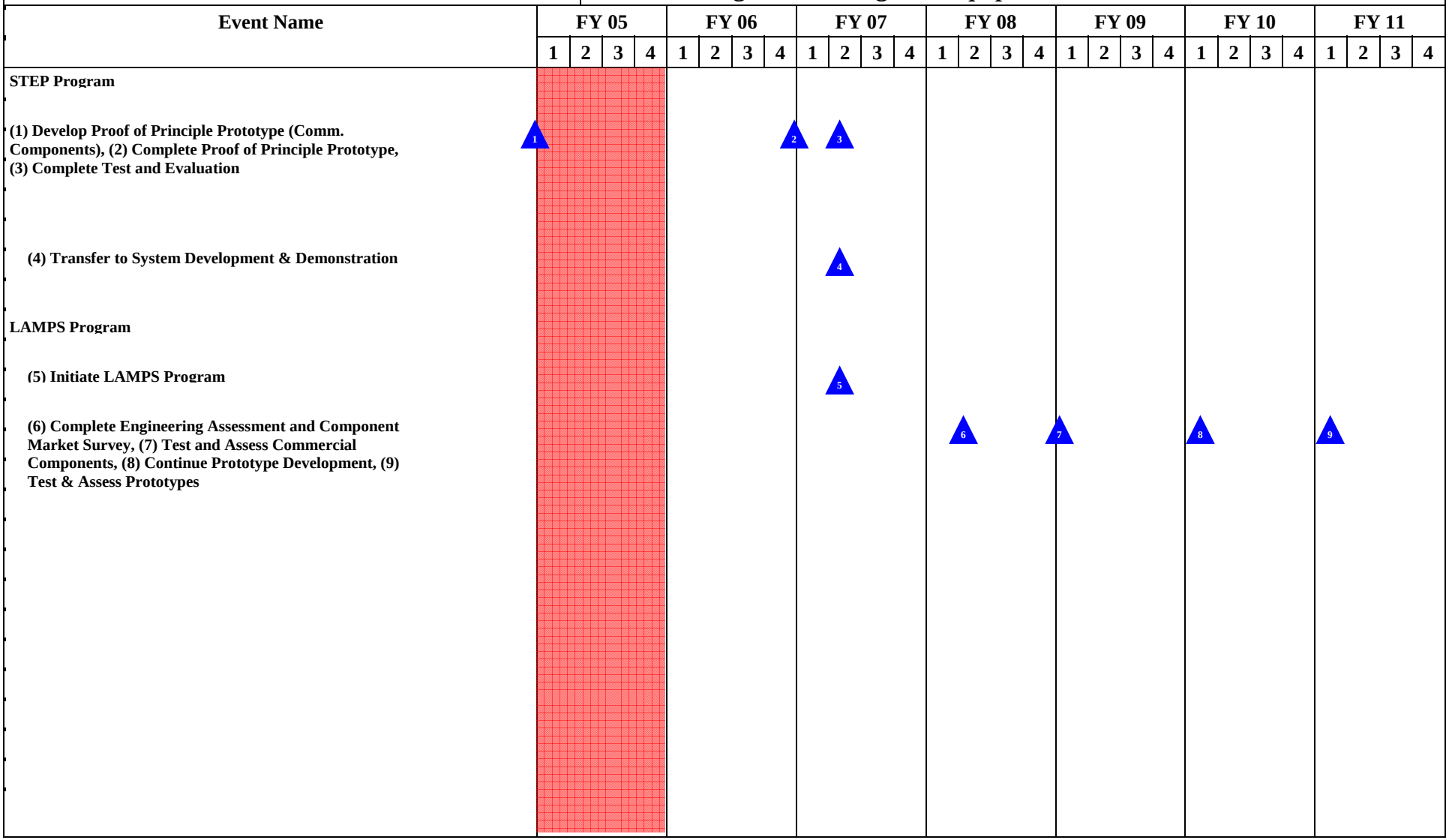
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603804A - Logistics and Engineer Equipment - Adv Dev

PROJECT
G11



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**G11**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Develop STEP proof of principle prototype using best available commercial components	1Q						
Complete STEP proof of principle prototypes		4Q					
Complete test and evaluation of STEP proof of principle prototypes/perfornace spec			2Q				
Transfer STEP program to System Development and Demonstration			2Q				
Initiate Large Advanced Mobile Power Sources (LAMPS) Program			2Q				
Complete engineering assessment and component market surveys for LAMPS				2Q			
Test and assess commercially available components for LAMPS					1Q		
Continue LAMPS prototypes						1Q	
Test and assess LAMPS prototypes							1Q

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**G14**

COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
G14 MATERIALS HANDLING EQUIPMENT - AD	0	196	205	207	212	207	207	0	1544

A. Mission Description and Budget Item Justification: This project supports Advanced Component Development and Prototypes of Material Handling Equipment (MHE) and stays abreast of current needs and available technologies to be integrated into military MHE. This program develops selected technologies and transitions to procurement a series of MHE items. Categories of MHE include warehouse forklifts, cranes and tow tractors, rough terrain forklifts, container handlers and cranes as well as ancillary equipment.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
Complete Market Investigation for All Terrain LIfting Army System.	0	146	155
Program support for ATLAS	0	50	50
Total	0	196	205

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
0604804A, Logistics and Engineer Equipment, Engineering Development (H14)	469	492	517	517	518	517	517	0	3547

C. Acquisition Strategy RDTE Logistics Support Equipment - Complete market investigations for ATLAS II Procurement.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**K39**

COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
K39 Field Sustainment Support AD	4157	4954	3267	3520	3985	11275	11272	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, 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 .

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY 05: Conducted Design Validation (DV) of Low Cost Aerial Delivery System (LCADS) Low Velocity parachute. Obtained Milestone C for LCADS Low Cost Container. Completed Operational Test (OT) for LCADS High Velocity parachute. Obtained Milestone C for High Velocity parachute. Initiated Developmental Testing (DT) for Low Velocity parachute. FY 06: Complete DT and OT for Low Velocity parachute. Obtain Milestone C for Low Velocity parachute.	824	350	0
FY 05: Obtained 60k British Thermal Unit (BTU) Improved Environmental Control Unit (IECU) Milestone B decision. Completed and released System Design and Development (SDD) contract solicitation. Transitioned program management to PM Mobile Electric Power. FY 06: Award SDD contract, fabricate test prototypes. Begin Production Qualification Testing (PQT) for the 60k IECU. FY 07: Complete PQT, logistics demonstration and user evaluation and obtain Milestone C Full Rate Production decision for 60k IECU.	835	1700	1202
FY 05: Concluded technical feasibility testing of Joint Precision Airdrop System (JPADS) 2k. Supported JPADS 10k Advanced Concept Technology demonstration (ACTD) program. FY 06: Obtain Milestone B for JPADS 2k. Prepare Request for Procurement (RFP) and execute Source Selection process for JPADS 2k. Conduct technical feasibility testing of candidate JPADS 10k technologies. Procure test prototypes and start DV of JPADS 2k. FY 07: Complete DV of JPADS 2k. Transition 2k to System Development and Demonstration (SDD). Obtain Milestone B for JPADS 10k. Prepare RFP and execute Source Selection process for JPADS 10k. Start and complete DV of JPADS 10k.	1653	2904	2065
FY 05: Awarded contract for design and development of Mobile Integrated Remains Collection System (MIRCS).	845	0	0
Total	4157	4954	3267

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA3, MF9303 Control Unit, Environmental	4702	1724	3862	3492	4556	4064	2842	CONT	CONT

OPA3, M77700 Mobile Intgrated Remains Collection System	0	0	0	9941	17925	18491	3905	CONT	CONT

C. Acquisition Strategy Accelerate Joint Precision Aerial Delivery System (JPADS) product development and testing to transition to System Development & Demonstration and/or Production.

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603804A - Logistics and Engineer Equipment - Adv Dev

PROJECT
K39

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Soldier Support Equipment	In-House	PM Force Sustainment Sys (FSS), Natick	1020	787	1-4Q	704	1-4Q	295	1-4Q	Continue	0	0
Soldier Support Equipment	In-house	CECOM, Ft Belvoir	420	259	1-4Q	278	1-4Q	75	1-4Q	Continue	0	0
Soldier Support Equipment	Contracts	Various	3260	969	1-2Q	246	1-4Q	481	1-4Q	Continue	0	0
Improved Environmental Control Unit (IECU)	In-House	CECOM, Ft Belvoir	0	0		278	1-4Q	175	1-4Q	Continue	0	0
IECU SDD	TBD	TBD	0	0		1142	2-4Q	784	1-4Q	Continue	0	0
Subtotal:			4700	2015		2648		1810		Continue	0	0

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0									

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Soldier Support Equipment	MIPR	DTC, MD and ATC, MD	200	172	1-4Q	185	1-4Q	116	1-4Q	Continue	673	0
Soldier Support Equipment	MIPR	Yuma Proving Ground, AZ, AEC	1500	1830	1-4Q	1738	1-4Q	1037	1-4Q	Continue	0	0
IECU	TBD	TBD	0	0		228	2-4Q	204	1-4Q	Continue	0	0
Subtotal:			1700	2002		2151		1357		Continue	673	0

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603804A - Logistics and Engineer Equipment - Adv Dev

PROJECT
K39

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Project Management Support	In-House	PM Force Sustainment Sys (FSS), Natick	180	140	1-4Q	103	1-4Q	63	1-4Q	Continue	0	0
Project Management Support	In-House	PM MEP Ft Belvoir	0	0		52	1-4Q	37	1-4Q	Continue	0	0
Subtotal:			180	140		155		100		Continue	0	0
Project Total Cost:			**6580**	**4157**		**4954**		**3267**		**Continue**	**673**	**0**

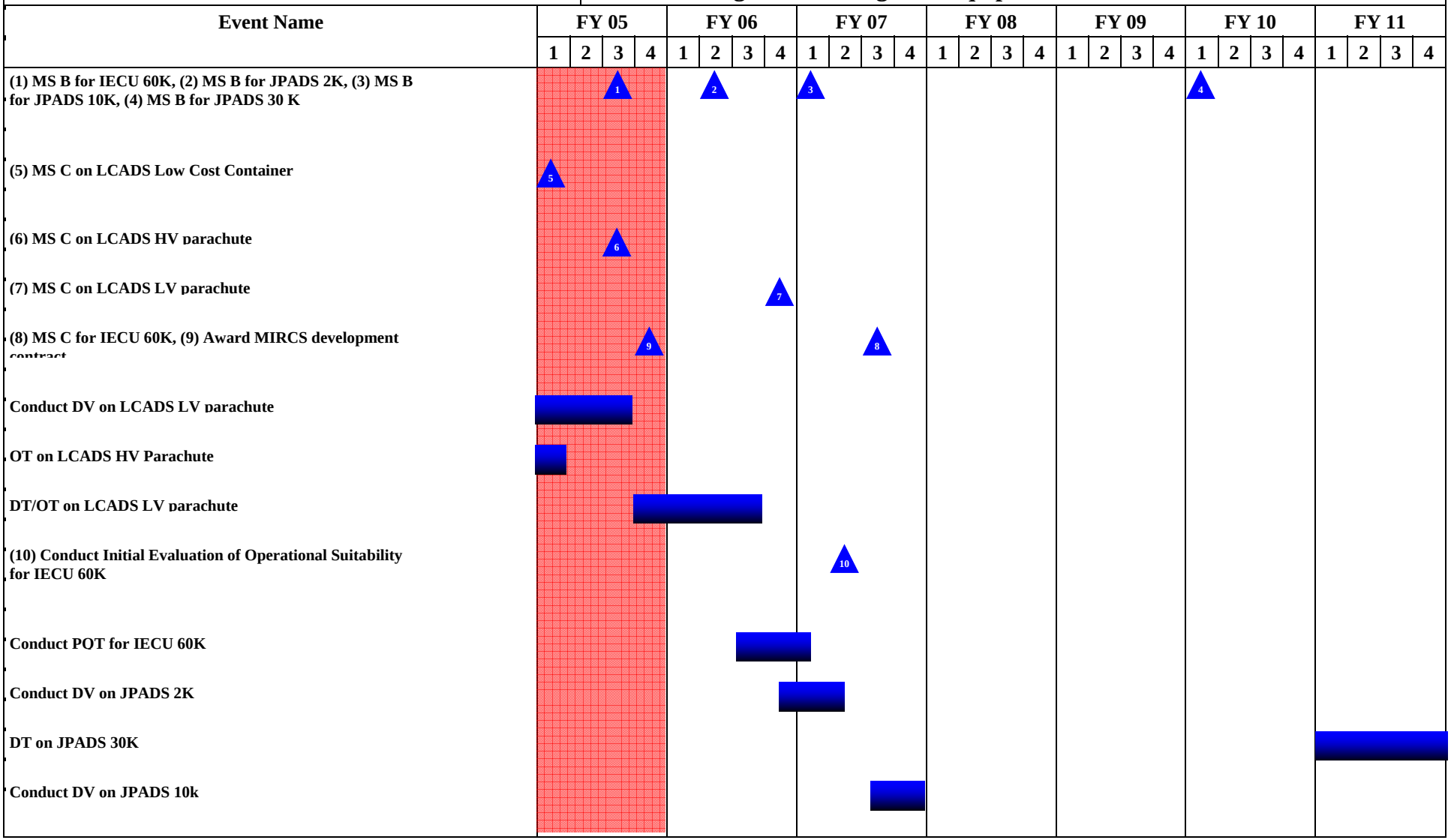
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603804A - Logistics and Engineer Equipment - Adv Dev

PROJECT
K39



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**K39**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Received Milestone C decision on LCADS low cost container.	1Q						
Conducted OT on LCADS HV parachute.	1Q						
Conducted Design Validation (DV) on LCADS Low Velocity (LV) parachute.	1-3Q						
Received Milestone C decision on LCADS HV parachute.	3Q						
Conducted DT on LCADS LV parachute.	4Q	1Q					
Conduct OT on LCADS LV parachute.		1-3Q					
Receive Milestone C decision on LCADS LV parachute.		4Q					
Obtain Milestone B decision for Joint Precision Aerial Delivery System 2k (JPADS) .		2Q					
Conduct DV on JPADS 2k.		4Q	1-2Q				
Obtain Milestone B decision for JPADS 10k.			1Q				
Conduct DV on JPADS 10k.			3-4Q				
Obtain Milestone B for JPADS for 30k.						1Q	
Conduct DT on JPADS 30k.							1-4Q
Obtain Milestone B for IECU 60k.	3Q						
Conduct Production QualificationTesting for IECU 60k.		3-4Q	1Q				
Obtain Milestone C for IECU 60k.			3Q				
Conduct user evaluation for IECU 60k.			2Q				
Initiate JPADS 10k System DT.				1Q			
Complete JPADS 10k System DT.				4Q			
Inititate JPADS 10k System OT.					1Q		
Complete JPADS 10k System OT.					4Q		
Award MIRCS development contract	4Q						

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**K41**

COST (In Thousands)		FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
K41	WATER AND PETROLEUM DISTRIBUTION - AD	3823	3265	4592	3670	3583	3446	3475	0	30250

A. Mission Description and Budget Item Justification: This project develops and demonstrates the potential of prototype equipment and technologies to satisfy petroleum storage, distribution, and quality surveillance system requirements. The Concept and Technology Development program supports the development and enhancement of rapidly deployable Petroleum and Water equipment. The mission includes developing onboard fuels and lubrication quality analysis systems; achieving greater capabilities in the removal of Nuclear, Biological, Chemical (NBC) and other contaminates from water sources; reducing the logistics foot print; developing water reutilization systems to reduce the requirement for transport of water into the theatre (this includes the water from exhaust); 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: FY07 funding will focus on further development and maturation of these essential component technologies. RIFTS Block II will provide significantly enhanced capabilities and a sharply reduced logistics footprint, which is critical to the Warfighter. The RIFTS will be the primary means of transferring bulk fuel from theater to corps or even the division rear area because it can be rapidly emplaced and used for early entry. If the RIFTS Block II is not funded, these key capabilities will either not be available or will be severely limited in their effect. Deployability, responsiveness, and logistic footprint would all be negatively impacted. Without a full RIFTS capability, line haul tank trucks (5,000 gallon (5K)) would be required for early entry sustainment, resulting in a larger logistical footprint and congestion on the Main Supply Route (MSR). Currently it takes 170 (5K) tank trucks and 340 soldiers to transfer 850 thousand (850K) gallons of fuel per day. Also, significantly more money will have to be dedicated towards RESET/refitting IPDS if the RIFTS is not funded.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY05-FY07: Continues Pre-Planned Product Improvements (P3I) to evaluate water purification components as improvements to the Lightweight Water Purifier (LWP), Tactical Water Purification System (TWPS).	804	0	1533
FY07: Initiates, develop improved water quality analysis equipment for LWP and TWPS.	0	0	1000
FY05-FY06: Conducts Production Qualification Testing (PQT) for the Camel	1829	190	0
FY05-FY07: Continues development of Advanced Petroleum Test Kit (PTK) and initiate performance testing.	487	63	500

FY05-FY06: Continues development Rapidly Installed Fuel Transfer System (RIFTS) Block I which includes components and high pressure conduit.	703	3012	0
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.	0	0	1059
FY07: Fuel Systems P3I - investigates and integrates new technologies to improve Army petroleum quality and handling system performance and sustainment.	0	0	500
Total	3823	3265	4592

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
RDTE, 0604804.L41, Logistics and Engineer Equipment - Engineering Development	8018	2156	7299	3610	3681	3644	3675	CONT	CONT
OPA 3, R05600, Water Purification Systems	59467	8768	9769	29628	33367	33138	20967	CONT	CONT
OPA 3, MA6000, Distribution Systems, Petroleum & Water	62077	59477	67867	98726	155464	201052	204458	CONT	CONT

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

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603804A - Logistics and Engineer Equipment - Adv Dev

PROJECT
K41

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Water Purification Components (P3I)	MIPR	NFESC, Port Hueneme, CA	0	101	1-2Q	0		200	1Q	Continue	301	Continue
Water Purification Components (P3I)	Purchase Orders	TBS	182	0		0		333	1-4Q	Continue	515	Continue
Water Purification Components (P3I)	In-House	TARDEC, Warren, MI	408	0		0		50	1Q	Continue	458	Continue
Water Purification Components (P3I)	Task Order Contract	ICI, Dayton, OH	0	0		0		50	2Q	Continue	50	Continue
Advanced Petroleum Test Kit	In-House	TARDEC, Warren, MI	458	45	1Q	63	1Q	200	1Q	Continue	766	Continue
Water Analysis for TWPS/LWP	In-House	TARDEC, Warren, MI	0	0		0		400	1Q	Continue	400	Continue
Water Analysis for TWPS/LWP	Purchase Order	TBS	0	0		0		200	2-4Q	Continue	200	Continue
Water from Engine Exhaust	CPFF	Lexcarb, Lexington KY	250	0		0		0		250	250	250
FSSP (P3I)	In-House	TARDEC, Warren, MI	151	0		0		0		151	151	151
Rapidly Installed Fuel Transfer System (RIFTS) Block I	C-CPFF	Southwest Research Institute, San Antonio, TX	77	703	1-4Q	3002	1Q	0		Continue	0	Continue
RIFTS Block II	C-CPFF	Southwest Research Institute, San Antonio, TX	0	0		0		1059	1Q	Continue	0	Continue
Fuel Systems Components (P3I)	In-House	TARDEC, Warren, MI	0	0		0		105	1Q	Continue	105	Continue
Fuel Systems Components (P3I)	TBD	TBS	0	0		0		320	2Q	Continue	320	Continue
Subtotal:			1526	849		3065		2917		Continue	3516	Continue

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Water Purification Components	In-House	TARDEC, Warren, MI	100	603	1Q	0		100	1Q	Continue	803	Continue

(P3I)												
Advanced petroleum test kit	In-House	TACOM, Warren, MI	65	0		0	1Q	75	1Q	Continue	140	Continue
Camel	In-House	TARDEC, Warren, MI	0	0		90	1Q	0		Continue	90	Continue
Subtotal:			165	603		90		175		Continue	1033	Continue

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Water Purification Components (P3I)	In House	TARDEC, Warren, MI	379	100	1Q	0		400	1-4Q	Continue	879	Continue
Advanced Petroleum Test Kit	MIPR	ATEC, Aberdeen Proving Ground	0	0		0		200	1Q	Continue	200	Continue
Advanced Petroleum Test Kit	In-house	TARDEC, Warren, MI	65	442	1Q	0		25	1Q	Continue	532	Continue
Water Analysis for TWPS/LWP	In House	TARDEC, Warren, MI	0	0		0		200	1Q	Continue	200	Continue
Water Analysis for TWPS/LWP	MIPR	CHPPM	0	0		0		200	1Q	Continue	200	Continue
Camel	MIPR	YPG, Yuma, AZ	0	1829	1-2Q	110	1-2Q	0		Continue	0	Continue
Water Purification Components (P3I)	MIPR	NFESC	0	0		0		400	1Q	Continue	400	Continue
Subtotal:			444	2371		110		1425		Continue	2411	Continue

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Advanced Petroleum Test Kit	In-House	TACOM, Warren, MI	70	0		0		75	1Q	Continue	145	Continue
Subtotal:			70	0		0		75		Continue	145	Continue

Project Total Cost:			**2205**	**3823**		**3265**		**4592**		**Continue**	**7105**	**Continue**

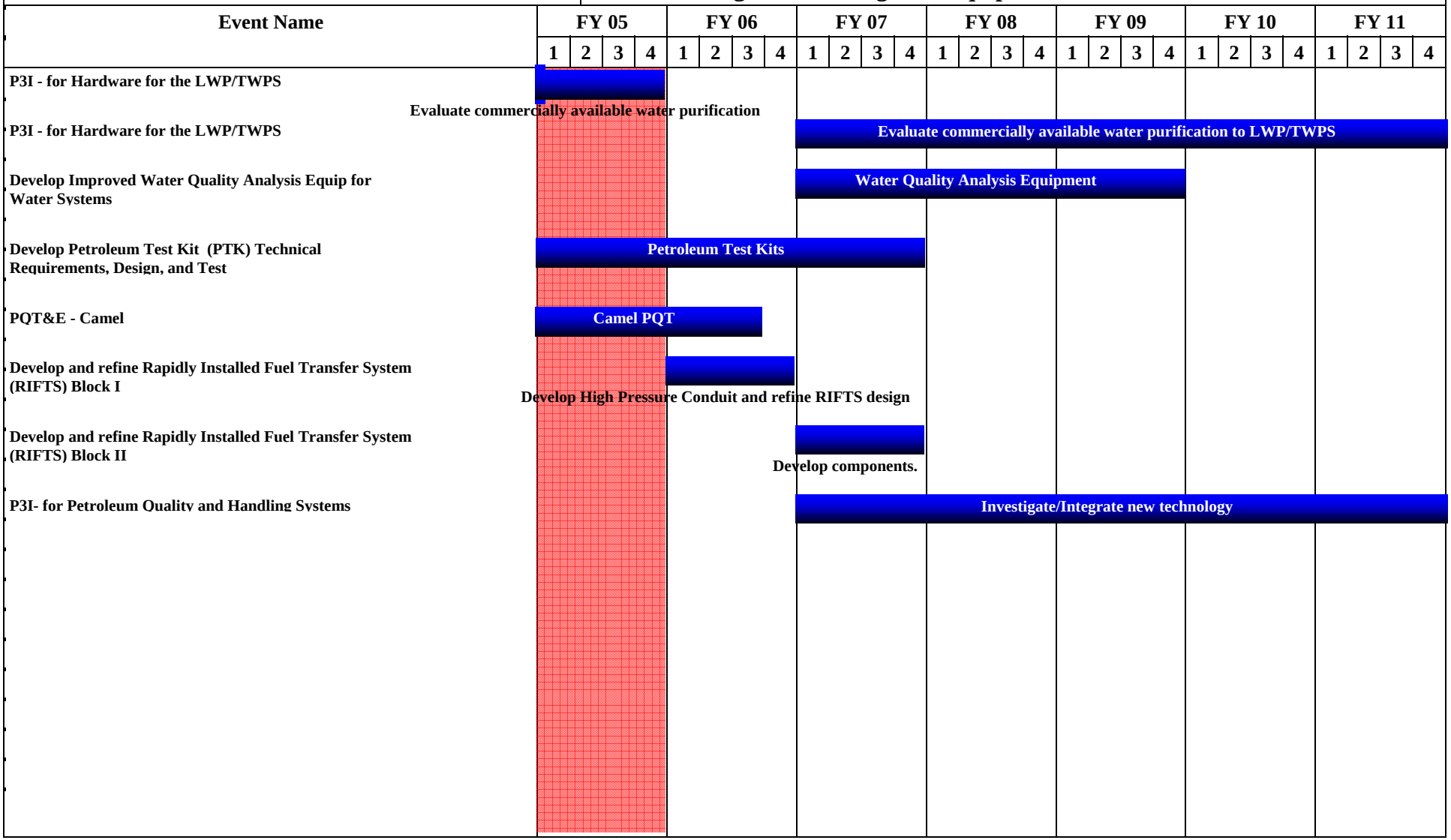
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE
0603804A - Logistics and Engineer Equipment - Adv Dev

PROJECT
K41



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603804A - Logistics and Engineer Equipment - Adv Dev**	**K41**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
(P3I) Evaluate commercially available water purification components as improvements to LWP & TWPS.	1-4Q						
(P3I) Evaluate commercially available water purification components as improvements to LWP & TWPS.			1-4Q	1-4Q	1-4Q	1-4Q	2-3Q
Develop improved Water Quality Analysis Equipment for LWP and TWPS			1-4Q	1-4Q	1-4Q		
Develop technical requirements, design, and test of Advanced Petroleum Test Kits (PTK).	1-4Q	1-4Q	1-4Q				
Develop high pressure conduit and refine Rapidly Installed Fuel Transfer Sys (RIFTS) design Block I.		1-4Q					
(P3I) Investigate/integrate new technology for petroleum quality and handling systems			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Camel Testing	1-4Q	1-3Q					
Develop automated pumping station and other components for RIFTS Block II.			1-4Q				