ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng 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	86918	14150	40301	36791	44482	47074	65934	0	476187
194	ENGINE DRIVEN GEN ED	5239	7625	14514	6818	4465	1721	1730	0	56422
461	MARINE ORIEN LOG EQ ED	54737	0	0	0	0	0	0	0	143866
H01	COMBAT ENGINEER EQ ED	3583	983	4884	3412	3304	10722	30742	0	67283
H02	TACTICAL BRIDGING - ENGINEERING DEVELOPMENT	2374	983	2903	9404	23359	12237	12616	0	66753
H14	MATERIALS HANDLING EQUIPMENT - ED	469	492	517	517	518	517	517	0	4503
L39	Field Sustainment Support ED	4409	1911	8450	11047	7111	6664	6690	0	55297
L41	WATER AND PETROLEUM DISTRIBUTION - ED	8018	2156	7299	3610	3681	3644	3675	0	41164
L42	CAMOUFLAGE SYSTEM ED	1536	0	0	0	0	1584	1375	0	5719
L43	ENGINEER SUPPORT EQUIPMENT - ED	1106	0	310	517	518	6622	4967	0	17861
L46	Maintenance Support Equipment	5447	0	1424	1466	1526	3363	3622	0	17319

A. Mission Description and Budget Item Justification: This Program Element (PE) provides system development and demonstration for various projects. This PE includes the development of military tactical bridging, material handling equipment, construction equipment, engineer support equipment, soldier support equipment (to include shelter systems, environmental control, field service equipment, camouflage systems and aerial delivery equipment), water purification equipment, petroleum distribution equipment, mobile electric power and water craft.

B. Program Change Summary	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2006)	90517	13353	35374
Current BES/President's Budget (FY 2007)	86918	14150	40301
Total Adjustments	-3599	797	4927
Congressional Program Reductions		-60	
Congressional Rescissions		-143	
Congressional Increases		1000	
Reprogrammings	-3599		
SBIR/STTR Transfer			
Adjustments to Budget Years			4927

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**194**

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
194 ENGINE DRIVEN GEN ED	5239	7625	14514	6818	4465	1721	1730	0	56422

A. Mission Description and Budget Item Justification: This project supports the Mobile Electric Power (MEP) program which is established to develop a Modernized, Standard Family of Mobile Electric Power Sources for All Services throughout the Department of Defense. Building on the device/component evaluations conducted in PE 0603804A project G11, this project supports the system development and demonstration of a series of innovative mobile electric power sources that are essential to the development and eventual fielding of modernized mobile electric power sources from 0.5 kW to 920 kW. These sources will ensure compliance with federally mandated environmental statutes and significantly lower noise and thermal signatures (thereby improving battlefield survivability), improve fuel and electrical efficiency, reduce weight, enhance portability, improve reliability and maintainability, and reduce operational and support costs.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY05: Awarded two Phase I contracts for Advanced Medium Mobile Power Sources (AMMPS) and began Phase I testing.	4212	0	0
FY05: Continued Phase I test for AMMPS	1027	0	0
FY06: Ininites a Downselect to 1 contractor/Award Phase II for AMMPS/Develop and assembly of pre-production test models with commensurate engineering and logistics data.	0	7625	0
FY07: Conducts Operational Testing (OT) and Developmental Testing (DT) for AMMPS and continue engineering and logistics data deliverables	0	0	14514
Total	5239	7625	14514

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
0603804A - Logistics and Engineer Equipment Adv Dev G11	1448	1820	2053	2192	2391	1148	1158	CONT	CONT
OPA3, MA9800, Generators and Associated Equipment	128929	42648	69468	107999	208991	198497	168542	CONT	CONT

C. Acquisition Strategy Perform Developmental Testing (DT)/Operational Testing (OT) for the AMMPS family; perform phase II contract award through a down select. Developmental test and evaluation of technologies that transition into procurement after Milestone C.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
194

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
AMMPS(5-60kW)	CPFF	Various	9016	3912	2Q	7225	2Q	6840	2Q	Continue	0	0
Follow-on 2kW Improvement Program	CPFF	Various	1800	0		0		0		0	1800	0
Subtotal:			10816	3912		7225		6840		Continue	1800	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
100/200kW	In-house	CECOM, Ft Belvoir, VA	1335	0		0		0		0	1335	0
AMMPS(5-60kW)	In-house	CECOM, Ft Belvoir, VA	1975	200	1Q	200	1Q	500	1Q	Continue	0	0
Follow-on 2kW Improvement Program	In-house	CECOM, Ft Belvoir, VA	65	0		0		0		0	65	0
Subtotal:			3375	200		200		500		Continue	1400	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
AMMPS(5-60kW)	MIPR	Various	927	951	2Q	0		6674	2Q	Continue	0	0
Follow-on 2kW Improvement Program	MIPR	CECOM, Ft Beloir, VA	216	0		0		0		0	216	0
Subtotal:			1143	951		0		6674		Continue	216	0

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
194

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
100/200kW	In-house	CECOM, Ft Belvoir, VA	1122	0		0		0		0	1122	0
AMMPS(5-60kW)	In-house	CECOM, Ft Belvoir, VA	1557	176	1-4Q	200	1Q	500	1Q	Continue	0	0
Subtotal:			2679	176		200		500		Continue	1122	0
Project Total Cost:			**18013**	**5239**		**7625**		**14514**		**Continue**	**4538**	**0**

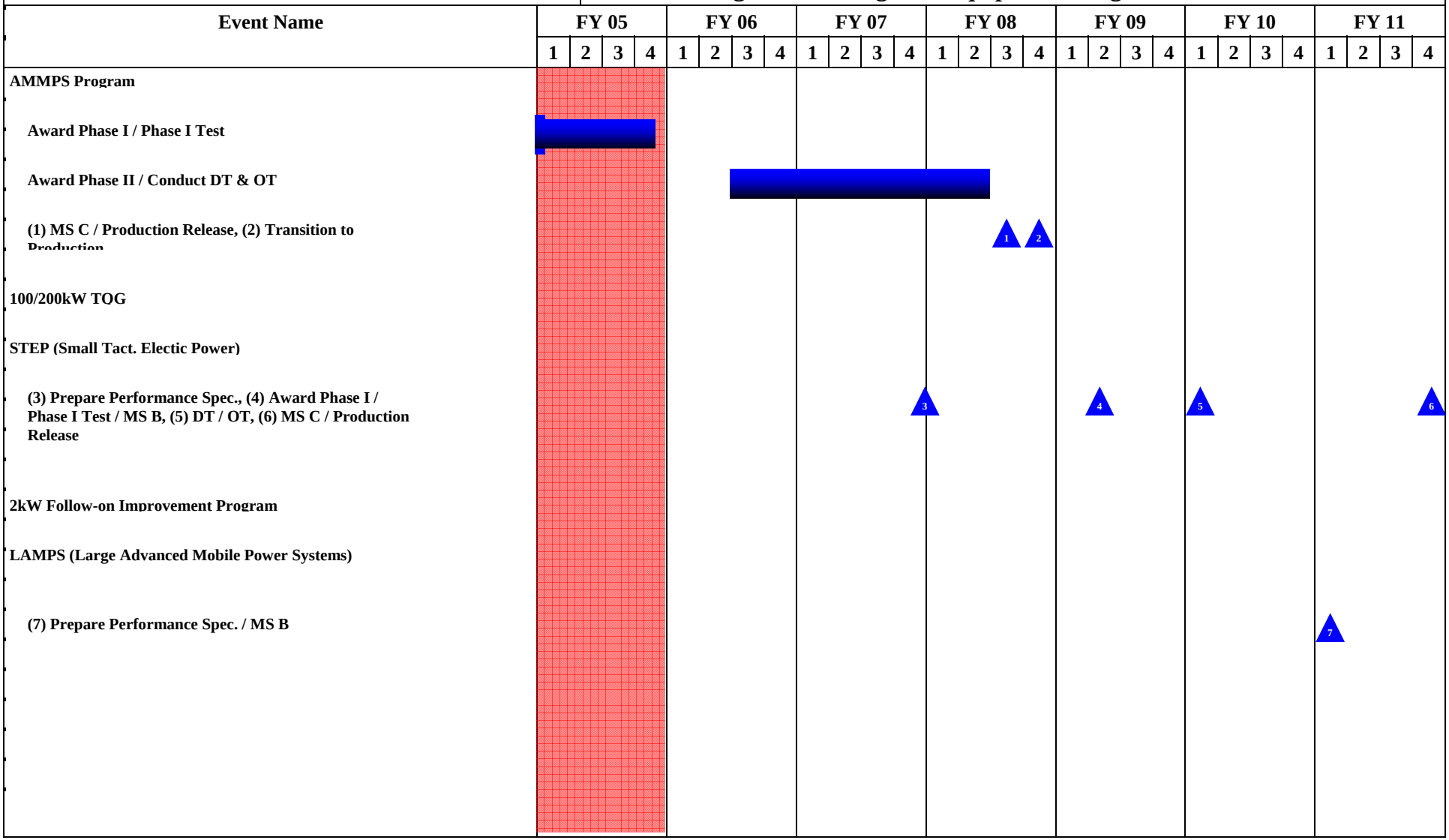
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
194



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**194**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Continue Phase I for AMMPS	2Q						
Downselect to 1 contractor/Award Phase II for AMMPS/develop test model		3Q					
Conduct AMMPS DT & continue enginneering & logistics data deliverables			3Q				
Begin preparation of Performance Specification for Small Tactical Electric Power (STEP)				1Q			
Complete DT/OT & documentation in support of Milestone C for AMMPS				1Q			
Transition AMMPS to Milestone C				3Q			
Transition AMMPS to Production				4Q			
Award STEP Phase I contracts/Milestone B					2Q		
DT/OT for STEP						1Q	
Begin Performance Specification for Large Advanced Mobile Power Sources (LAMPS)							1Q
STEP Milestone C/Production Release							4Q

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**H01**

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
H01 COMBAT ENGINEER EQ ED	3583	983	4884	3412	3304	10722	30742	0	67283

A. Mission Description and Budget Item Justification: This project supports the System Development and Demonstration of military Construction Equipment used in support of horizontal and vertical engineer construction tasks; required in order to develop a variety of enabling systems that will support and improve mobility for Engineers in the Brigade Combat Teams (BCT) and Combat Support Brigades (CSB) modularity forces. This project also supports the SDD of enabling systems to meet critical capabilities of joint interdependence through Air and Ground (A/G) Line of Communication (LOC) and Rapid Tactical Earthmoving (RTE) repair and construction which increase the operational reach of modularity forces. The BCT and CSB systems include: High Mobility Engineer Excavators (HMEE, Types I and III); Scrapers, Scoop Loaders, Skid Steer Loaders, Deployable Universal Combat Earthmover (DEUCE), Hydraulic Excavators (HYEX), Dozers and Graders.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY05-FY07: Conducts market research and update specs for future engineer transformation.	520	20	545
FY05-FY07: Continues development of engineer and acquisition documents required for Milestone Decisions.	489	20	475
FY05-FY07: Conducts Test and Evaluation of future engineer equipment.	456	135	495
FY05-FY07: Design armor kits for Construction Equipment.	1918	566	900
FY06: Conducts feasibility studies for armor on Construction Equipment.	0	100	180
FY05-FY06: Conducts Armor Test and Evaluation for Construction Equipment Systems	200	142	300
FY07: Initiates SDD of systems enabling A/G LOC Repair and Construction capabilities	0	0	415
FY07: Productivity analysis of commercial tactic, techniques and procedures (TTP) for load and haul.	0	0	1374
FY07: Construction Equipment Lease Study	0	0	200
Total	3583	983	4884

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA3, R05900, High Mobility Engineer Excavator I	3452	4339	39607	26565	26279	29655	39482	CONT	CONT
OPA3, R05910, High Mobility Engineer Excavator III	6129	6702	8239	8122	7444	15336	5508	0	57480
OPA3, R03801, Grader, Mtzd, Hvy	0	0	2902	12827	9140	20556	25348	CONT	CONT
OPA3, R02800, Scrapers, Earthmoving 14-18 CY	0	0	0	3228	6014	10441	0	0	19683
OPA3, R14200, Scraper, Elevating SP 11 CY Min Sec	0	0	1049	28428	29447	18689	0	0	77613
OPA3, M06400, Loader, Scoop Type, 2 1/2 CU YD	4880	0	0	0	0	0	0	0	4880

OPA3, R03900, Loader, Scoop Type, 4 - 5 CU YD	6337	8107	13023	13707	14419	15032	0	0	70625
OPA3, X01500, Hydraulic Excavator	0	0	2475	1482	4201	5911	6434	0	20503
OPA3, R03300, Roller, Vibratory, Self-Propelled (CCE)	0	0	0	2437	5656	0	0	0	8093
OPA3, M08100, Plant, Asphalt Mixing	0	0	0	0	4965	19481	23610	0	48056
OPA3, M06100, Tractor Full Tracked, Med T-9	0	3656	4799	11065	19597	18790	24700	0	82607

C. Acquisition Strategy Conduct research, development, and investigations on future Construction Equipment (CE) and identify the pathforward for programs to be transitioned for PEO program management. Identify technical advancements that can improve reliablity, availability, and maintainability and reduce the logistical footprints for future CE equipment.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
H01

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
Non-split rim wheel development	FFP	Hutchinson Tire, Hutchinson, KS	400	0		0		0		0	400	400
Complete SDD Contracts for HMEE Type I	FFP	ADI, Australia; JCB, Pooler, GA	4047	0		0		0		0	4047	4047
Market Research, Studies, Update Specs for future engineer	various	multiple activities	813	520	1-4Q	20	1-4Q	545	1-4Q	Continue	0	Continue
Continue development of engineer and acquisition documents	various	multiple activities	618	489	1-4Q	20	1-4Q	475	1-4Q	Continue	984	Continue
Design armor kits for Construction Equipment	various	multiple activities	0	1324	2-4Q	566	1-4Q	615	1-4Q	Continue	2505	Continue
Conduct feasibility studies to armor Construction Equipment Systems	various	multiple activities	0	0		100	2-4Q	180	2-4Q	Continue	0	Continue
Initiate SDD for A/G LOC Repair and Construction	TBD	TBD	0	0		0		415	1-4Q	Continue	0	Continue
Subtotal:			5878	2333		706		2230		Continue	7936	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
Matrix Support	MIPR	TACOM & TARDEC, Warren, MI	10219	361	1-2Q	0		140	1-2Q	Continue	0	Continue
Engineering Operational Integrator Support	MIPR	DA/Pentagon, Washington, DC	156	0		0		0		0	156	156
Construction Equipment Lease Study	MIPR	DA/Pentagon, Washington, DC	200	0		0		200	2Q	0	400	400
Subtotal:			10575	361		0		340		Continue	556	Continue

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
H01

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
HMEE Type I (6 prototypes)	MIPR	ATEC, Aberdeen, MD	784	0		0		0		0	784	784
Armor Tests for IHMEE & DEUCE	MIPR	ATEC, Aberdeen, MD	0	200	4Q	142	1-4Q	300	1-4Q	Continue	0	Continue
Future Engineer Equipment (various)	MIPR	ATEC, Aberdeen, MD	1696	456	1-4Q	135	1-4Q	495	1-4Q	Continue	0	Continue
Productivity analysis of TTP	various	multiple	0	0		0		1374	2-4Q	0	0	1500
Subtotal:			2480	656		277		2169		Continue	784	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
Program Mgt	In-house	PM CE/MHE, Warren, MI	529	233	1-2Q	0		145	1-2Q	Continue	0	Continue
Subtotal:			529	233		0		145		Continue	0	Continue
Project Total Cost:			**19462**	**3583**		**983**		**4884**		**Continue**	**9276**	**Continue**

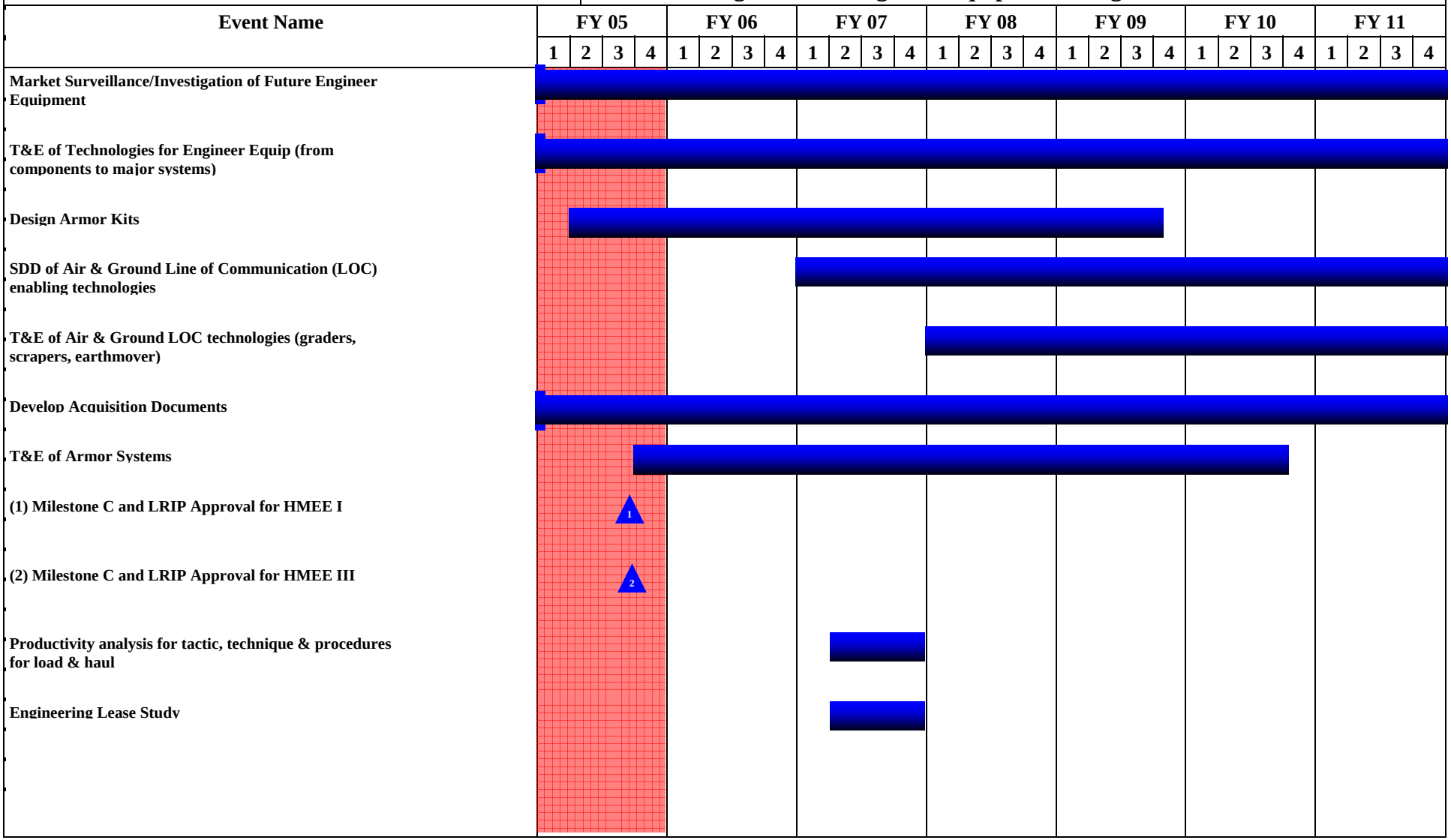
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
H01



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**H01**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Market Surveillance/Investigation	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Test and Evaluation of Future Engineer Equipment	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Design Armor Kits for various Construction Equipment systems	2-4Q	1-4Q	1-4Q	1-4Q	1-4Q		
Air & Ground Line Of Communication (LOC) SDD			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Air & Ground LOC Test & Evaluation				1-4Q	1-4Q	1-4Q	1-4Q
Develop Acquisition Documents	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
T&E Armor Systems	4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
Productivity analysis for tactic, technique & procedure for load & haul			2-4Q				
Engineering Lease Study			2-4Q				

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**H02**

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
H02	TACTICAL BRIDGING - ENGINEERING DEVELOPMENT	2374	983	2903	9404	23359	12237	12616	0	66753

A. Mission Description and Budget Item Justification: This project supports the engineering, system development and demonstration, and transition to procurement of Future Force Tactical Bridge Systems. Efforts supported include: Assessment of the Rapidly Emplaced Bridging System (REBS) for the Stryker Brigade Combat Team (SBCT) the development, integration and testing of forth-six meter capability for the Dry Support Bridge (DSB). Also included: is the development, integration and testing for float capabilities for the Dry Support Bridge (DSB, development, integration and testing an electronically controlled replacement engine for the Bridge Erection Boat (BEB), a remote controlled automatic launch for the REBS and finally integrate and test the REBS on an FCS chassis.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY05: Completed Operational testing of the REBS.	1712	0	0
FY05-FY07: Continues Development, integration, and test for the DSB 46 meter bridge.	662	704	0
FY06-FY07: Continues Development, integration, and test for the DSB Float Bridge.	0	279	2903
Total	2374	983	2903

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA3, MX0100, Tactical Bridge	33979	25853	69608	50455	68584	60845	61364	CONT	CONT
OPA3, MA8890, Tactical Bridging, Float Ribbon	28540	5834	80093	74785	105627	85999	49451	CONT	CONT

C. Acquisition Strategy Limited RDT&E effort to support testing and follow-on production.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
H02

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
DSB 46 meter bridge	SS-CPFF	WFEL, Stockport, England	0	662	1Q	704	1Q	0		Continue	0	1366
DSB float bridge	SS-CPFF	WFEL, Stockport, England	0	0		269	1Q	2893	2Q	6000	0	8944
Subtotal:			0	662		973		2893		Continue	0	10310

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
Other Government Agencies	MIPR	TACOM, Warren, MI--Various	120	0	1Q	10	1Q	10	1Q	0	0	0
Subtotal:			120	0		10		10		0	0	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
REBS OT	MIPR	HQ OTC, Ft Hood, TX	912	1712	1Q	0		0		0	0	1714
DSB 46 meter Bridge	SS-CPFF	WFEL, Stockport, UK	246	0		0		0	1Q	0	0	208
Subtotal:			1158	1712		0		0		0	0	1922

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
Program Management Support	NA	TACOM, Warren, MI	727	0		0		0		0	727	0

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**H02**

Subtotal:	727	0		0		0		0	727	0
Project Total Cost:	**2005**	**2374**		**983**		**2903**		**6000**	**727**	**12232**

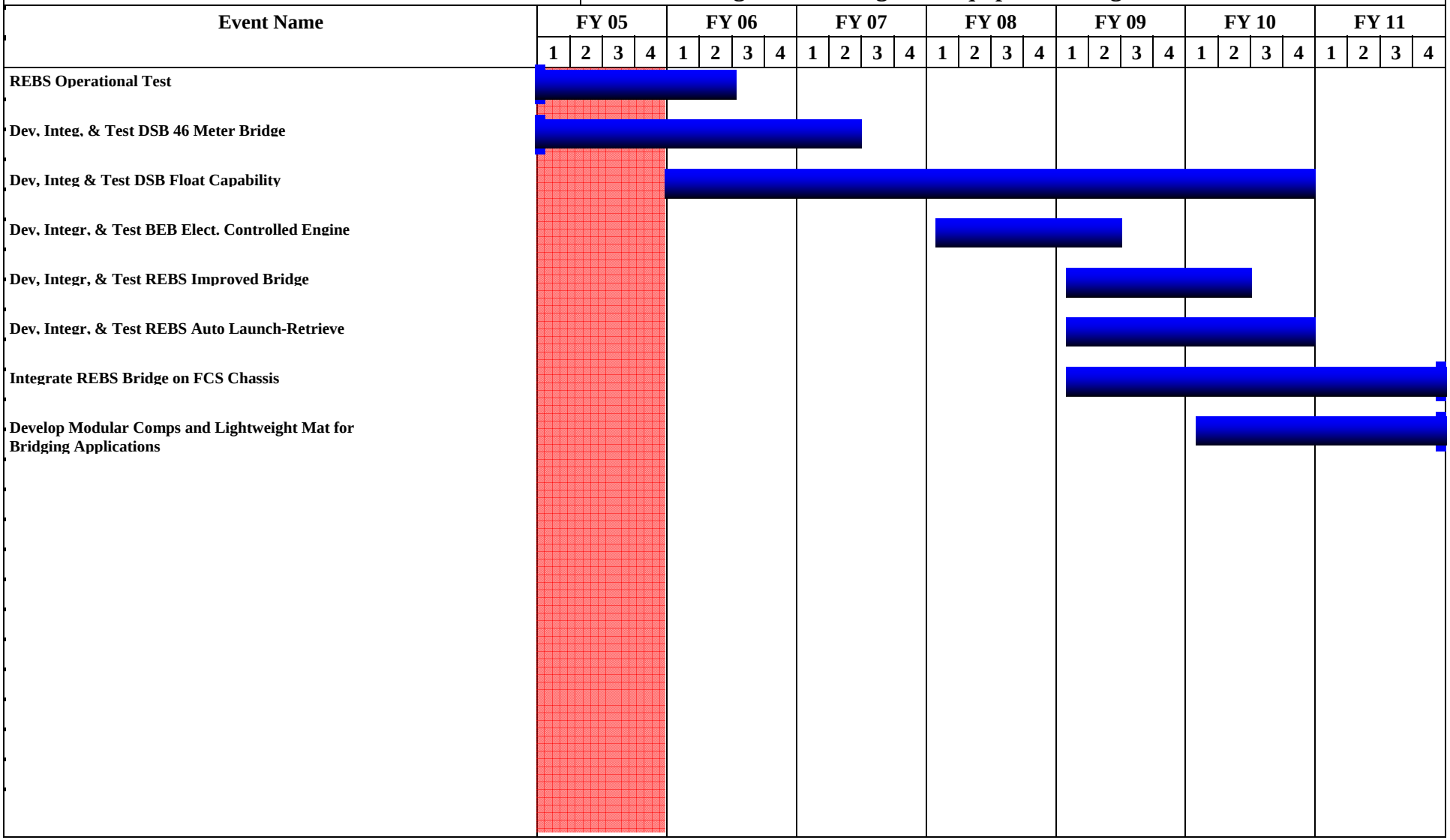
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
H02



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**H02**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
REBS Operational Test	1-4Q	1-3Q					
Develop DSB 46 Meter Bridge	1-4Q						
Integrate and Test DSB 46 Meter Bridge	1-4Q	1-3Q					
Develop DSB Float Bridge Capability		2-4Q	1-4Q	1-4Q			
Integrate DSB Float Bridge Capability					1-4Q		
Test DSB Float Bridge Capability						1-4Q	
Develop BEB Electronically Controlled Engine				1-3Q			
Integrate BEB Electronically Controlled Engine				4Q	1Q		
Test BEB Electronically Controlled Engine					1-2Q		
Develop New REBS Improved Bridge					1-3Q		
Integrate New REBS Improved Bridge					3-4Q		
Test New REBS Improved Bridge						1-2Q	
Develop REBS Fully Automated Launch/Retrieve					1-4Q		
Integrate REBS Fully Automated Launch/Retrieve						1-2Q	
Test REBS Fully Automated Launch/Retrieve						3-4Q	
Integration of REBS on Future Combat System (FCS) Chassis					1-4Q	1-4Q	1-4Q
Develop Modular Comps and Lightweight Material for Bridging Applications						1-4Q	1-4Q

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**L39**

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
L39	Field Sustainment Support ED	4409	1911	8450	11047	7111	6664	6690	0	55297

A. Mission Description and Budget Item Justification: This project supports the System Development and Demonstration (SDD) of critical distribution and sustainment capabilities to include cargo aerial delivery, field shelters, showers, latrines, heaters, environmental control units, mortuary affairs, organizational equipment, and other combat service support equipment to fill identified theater distribution and services capability gaps, improve unit sustainability, and increase combat effectiveness. Project supports the demonstration of engineering development models and Type Classification of cargo parachutes, airdrop containers and other aerial delivery equipment to improve safety, effectiveness, and efficiency of airborne operations. Project supports development of tactical field systems and support equipment. This project develops critical enablers that support the Quartermaster (QM) Force Transformation Strategy and The Army's Modular Force Capabilities by maintaining readiness through fielding and integrating new equipment. This project also ensures Army Expeditionary Forces are capable of rapid deployment by providing aerial delivery initiatives. These reduce sustainment requirements, related Combat Support/Combat Service Support (CS/CSS), lift demands, the combat zone footprint, and costs for logistical support.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY 05: Obtained Milestone B approval and initiated development of Mobile Integrated Remains Collections System (MIRCS) prototypes. FY 06: Complete fabrication of MIRCS prototypes and initiate Developmental Testing (DT). FY 07: Complete DT and conduct Operational Testing (OT). Complete documentation and prepare for Milestone C package for MIRCS to transition into production.	1463	1425	1808
FY 05: Obtained Milestone C. Awarded Low Rate Initial Production (LRIP) contract, completed Field Evaluation for the 60k BTU Space Heater Convective (SHC).	56	0	0
FY 05: Completed Design Validation (DV) for 500' Low Velocity Airdrop System (LVADS).	1552	0	0
FY 05: Completed DT of platform and nets on the Enhanced Containerized Delivery System (ECDS). Procured OT test items. FY 06: Initiate and complete OT and obtain Milestone C for ECDS.	846	200	0
FY 05: Concluded technical feasibility and conducted DT of Extraction Parachute Jettison System Heavy (EPJS(H)). Procured OT test items. FY 06: Complete OT, obtain Milestone C and transition into production.	492	286	0
FY 07: Procure Joint Precision Airdrop System (JPADS) 2k DT and OT test prototypes and conduct JPADS 2k System DT.	0	0	6642
Total	4409	1911	8450

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, Environmental Control Units (ECU)	4702	1724	3862	3492	4556	4064	2842	CONT	CONT
OPA 3, M77700 Mobile Integrated Remains Collection System	0	0	0	9941	17925	18491	3905	CONT	CONT

C. Acquisition Strategy Accelerate product development and testing to transition into production.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
L39

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 FSS, Natick	1005	426	1-4Q	280	1-4Q	810	1-4Q	Continue	2521	3241
Soldier Support Equipment	In-House	CECOM, FT Belvoir	1441	0	1-4Q	0	1-4Q	0	1-4Q	Continue	1441	0
Soldier Support Equipment	Contracts	Various	4817	1839	1-2Q	1273	1-2Q	4448	1-2Q	Continue	0	0
Subtotal:			7263	2265		1553		5258		Continue	3962	3241

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	580	132	1-4Q	100	1-4Q	804	1-4Q	Continue	0	130
Soldier Support Equipment	MIPR	Yuma Proving Ground, AZ, AEC	1896	1876	1-4Q	200	1-4Q	2143	1-4Q	Continue	0	76
Subtotal:			2476	2008		300		2947		Continue	0	206

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		PM FSS, Natick	250	136	1-4Q	58		245		Continue	0	0
Subtotal:			250	136		58		245		Continue	0	0

Project Total Cost:	**9989**	**4409**		**1911**		**8450**		**Continue**	**3962**	**3447**

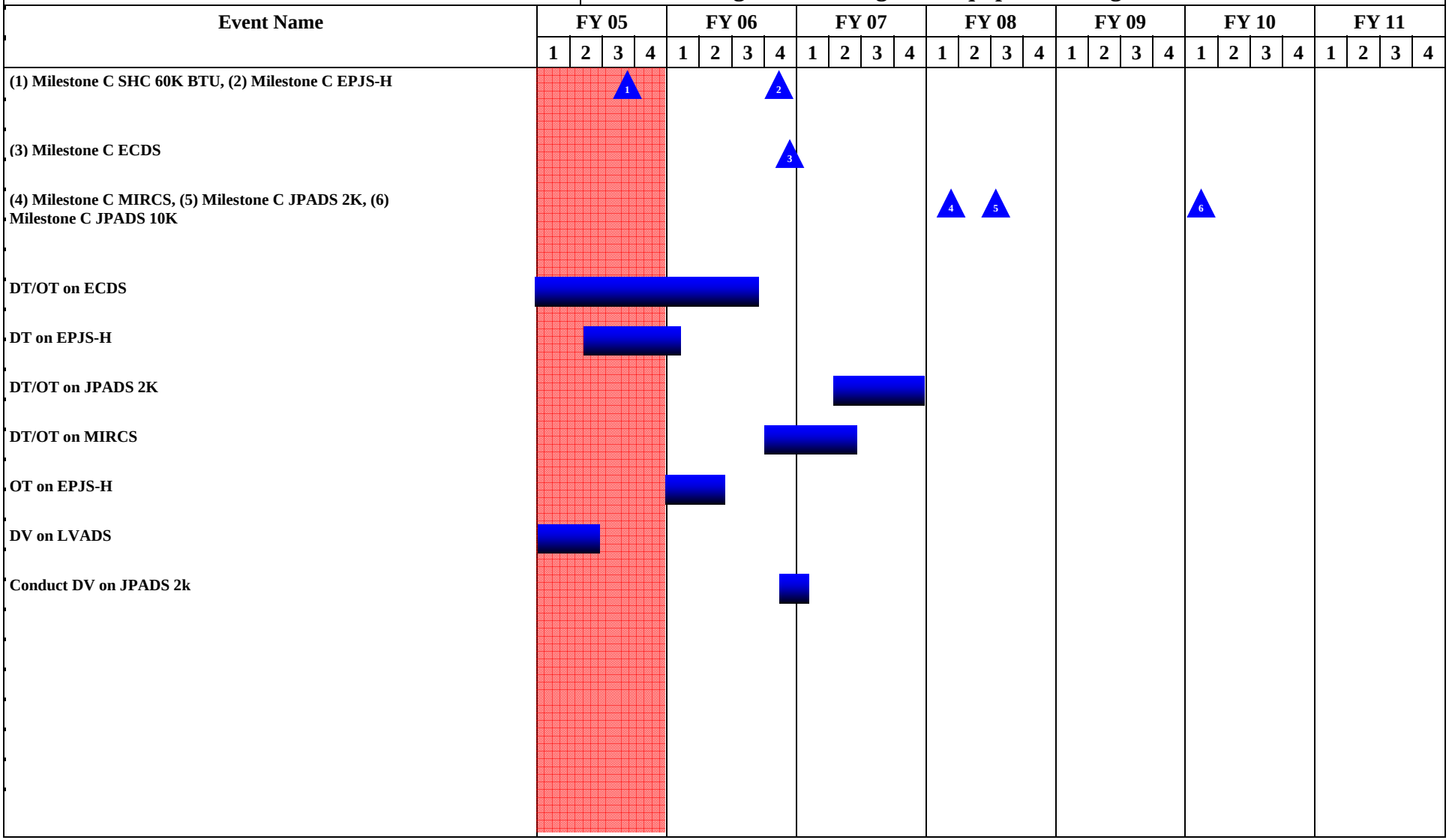
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
L39



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**L39**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Conduct DT/OT on the Mobile Integrated Remains Collection System (MIRCS).		4Q	1-2Q				
Conduct Milestone C Decision on the MIRCS and transition into production.				1Q			
Obtain Milestone C LRIP Decision on the 60k BTU SHC.	3Q						
Conduct DV on Advanced Low Velocity Airdrop System (LVADS).	1-2Q						
Conduct DT on Enhanced Containerized Delivery System (ECDS).	1-4Q	1Q					
Conduct OT on ECDS.		2-3Q					
Conduct Milestone C Decision on ECDS.		4Q					
Conduct DT on Extraction Parachute Jettison System - Heavy (EPJS-H).	2-4Q	1Q					
Conduct OT on EPJS-H.		1-2Q					
Conduct Milestone C Decision on EPJS-H.		4Q					
Initiate JPADS 2k System DT.			2Q				
Complete JPADS 2k System DT.			3Q				
Initiate JPADS 2k System OT.			3Q				
Complete JPADS 2k System OT.			4Q				
Conduct Milestone C on JPADS 2k System.				3Q			
Conduct Milestone C on JPADS 10k System.						1Q	
Conduct DV on JPADS 2k		4Q	1Q				

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**L41**

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
L41	WATER AND PETROLEUM DISTRIBUTION - ED	8018	2156	7299	3610	3681	3644	3675	0	41164

A. Mission Description and Budget Item Justification: Description: This projects provides all services ample supply of clean fuel and water. The Army has the mission to supply fuel for all land-based forces, including the Marines and the Air Force, and must supply bulk drinking water to its soldiers. This System Development and Demonstration (SDD) program enables the Army to improve maneuver sustainment operations to meet the demands of the Stryker Brigade Combat Teams and Future Force. The mission includes receiving and transferring petroleum from trucks, ships, pipelines and permanent and temporary storage facilities; moving petroleum from storage to and within corps and division areas; fuel quality surveillance testing; and dispensing in support of tactical operations, including rapid refueling of aircraft. The Rapidly Installed Fuel Transfer System (RIFTS) is being developed as an enhancement system for bulk fuel distribution and does not replace the Inland Petroleum Distribution System (IPDS). RIFTS can be deployed at a rate of 20-30 miles per day as compared to 2-3 miles per day for IPDS. Additionally, the mission covers purification, storage, distribution, and quality control of water. The Army cannot fight without clean fuel and water. These R&D missions support the development and enhancement of rapidly deployed Petroleum and Water equipment which enables the Army to achieve its transformation vision by providing a highly mobile and self-sustaining system in hostile theaters of operation.

Justification: FY07 procures modules for the Rapidly Installed Fuel Transfer System (RIFTS). 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 Block II enhancements will increase mobility by becoming smaller and more efficient and will provide fuel throughput of 850,000 gallons (850K) of liquid per day. Integration of 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. FY07 funding will focus on further development, integration, and maturation of these essential system capabilities. RIFTS Block II will provide significantly improved technological capabilitiy 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 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: Evaluated commercial water treatment components for P3I for water purification systems.	297	0	0
FY05: Completed Rapidly Installed Fuel Transfer System (RIFTS) Block I development, prototype design, fabrication, and test.	2607	0	0
FY05-FY06: Continues Rapidly Installed Fuel Transfer System (RIFTS) Block I development and testing.	5114	2156	0
FY07: Continues Rapidly Installed Fuel Transfer System (RIFTS) Block II development, prototype design, fabrication and test.	0	0	7299

Total	8018	2156	7299

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
RDTE, 0603804/K41, Logistics and Engineer Equipment - Advanced Development	3823	3265	4592	3670	3583	3446	3475	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 System Development and transitions to competitive procurement for most items under this project. Exceptions include Small Business Set Aside for the Rapidly Installed Fuel Transfer System (RIFTS).

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
L41

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
Rapidly Installed Fuel Transfer System (RIFTS) - BLOCK I	In-House	TARDEC, Warren, MI	1402	910	1-4Q	200	1-4Q	0		Continue	2512	Continue
RIFTS - BLOCK I	C-CPFF	Southwest Research Institute, San Antonio, TX	5833	3487	2Q	1052	1Q	0		Continue	0	Continue
RIFTS - BLOCK II	C-CPFF	Southwest Research Institute, San Antonio, TX	0	0		0		6671	2Q	Continue	0	Continue
RIFTS - BLOCK II	In-House	TARDEC, Warren, MI	0	0		160	1Q	350	1-4Q	Continue	510	Continue
Subtotal:			7235	4397		1412		7021		Continue	3022	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
Rapidly Installed Fuel Transfer System (RIFTS) - Block II	In-House	TACOM, Warren, MI	76	0		0		150	1Q	Continue	226	Continue
Subtotal:			76	0		0		150		Continue	226	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
Rapidly Installed Fuel Transfer System (RIFTS) - PQT-Block I	MIPR	YPG, Yuma, AZ	300	3324	3-4Q	604	2-4Q	0		3624	3624	3624
Water Purification P3I	MIPR	NFESC, Port Hueneme, CA	35	297	1Q	0		0		332	332	Continue
Subtotal:			335	3621		604		0		3956	3956	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
Program Management Support-Rapidly Installed Fuel Transfer System (RIFTS)	In-House	TACOM, Warren, MI	877	0		100	1Q	78	1Q	Continue	1055	Continue
Program Management Support - RIFTS	Contract	ICI, Dayton, OH	0	0		40	2Q	50	2Q	Continue	90	Continue
Subtotal:			877	0		140		128		Continue	1145	Continue
Remarks: Not Applicable												
Project Total Cost:			**8523**	**8018**		**2156**		**7299**		**Continue**	**8349**	**Continue**

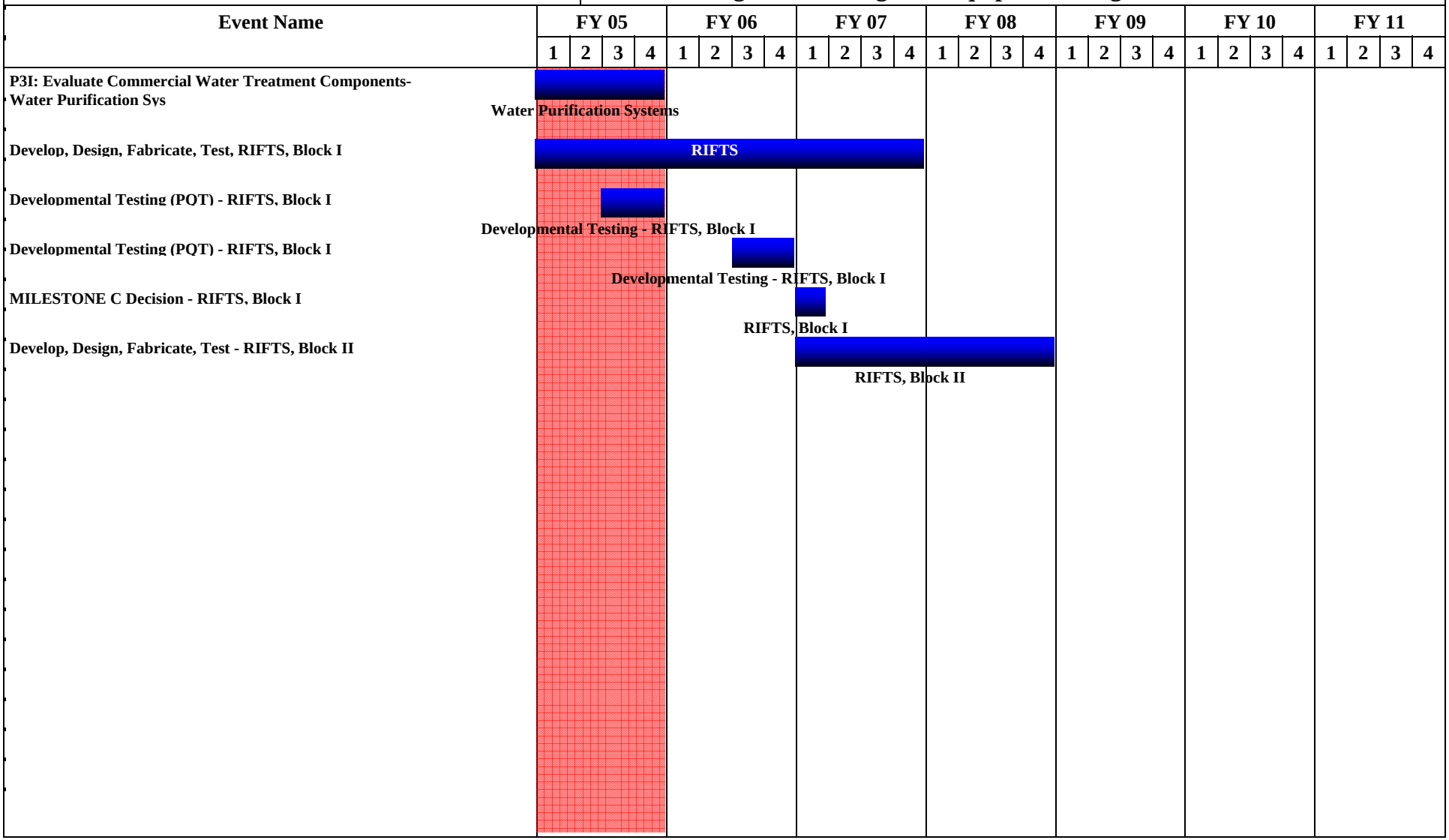
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
L41



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**L41**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Evaluate commercial water treatment components for P3I for water purification systems.	1-4Q						
Rapidly Installed Fuel Transfer System (RIFTS) Blk I;develop, prototype design, fabricate, and test,	1-4Q	1-4Q	1-4Q				
RIFTS Developmental Testing - PQT- Block I	3-4Q	3-4Q					
RIFTS - Milestone C - Block I			1Q				
RIFTS, Block II; develop, prototype design, fabricate, and test.			1-4Q	1-4Q			

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**L46**

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
L46	Maintenance Support Equipment	5447	0	1424	1466	1526	3363	3622	0	17319

A. Mission Description and Budget Item Justification: This project supports systems development and demonstration within the Maintenance Support Equipment (MSE) arena for automotive tool sets, forward repair mobile maintenance systems, individual & unit tool kits, and ground & aviation shop, Sets Kits Outfits and Tools (SKOT) used in support of Modularity.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY07: Optimization of antiquated SKOTs to support modularity in a 2 level maintenance environment	957	0	1199
FY07: Standard Automotive Tool Set (SATS) future field modules and feasibility of incorporating LHS capability.	173	0	225
FY05: Completed Mobile Parts Hospital	4317	0	0
Total	5447	0	1424

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA 3 ML5345/MA9650 SATS	9345	2269	0	19187	18789	18366	17350	CONT	CONT

C. Acquisition Strategy Programs will progress from System Development and Demonstration(SDD), transition into production, and incorporate enhanced future technologies.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
L46

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
MSE Life Cycle Configuration Analyses and Initial Capabilities Document (ICD) Development Support	In-House	PM SKOT Rock Island	158	347	1-2Q	0		409	1-3Q	Continue	0	Continue
SATS Additionl Field Maintenance Module Development and feasibility of incorporating LHS capability	In-House	PM SKOT Rock Island	173	10	1Q	0		125	1-3Q	Continue	0	Continue
Mobile Parts Hospital	MIPR/IN HOUSE	TARDEC/PM SKOT ROCK ISLAND	0	4015	2-3Q	0		0		0	0	0
Subtotal:			331	4372		0		534		Continue	0	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
Life Cycle Configuration Analyses & Support to Initial Capabilities Document Dev	In-House	PM SKOT Rock Island	15	37	1-2Q	0		100	1-2Q	Continue	152	Continue
Mobile Parts Hospital	In-House	PM SKOT Rock Island	0	302		0		0		Continue	0	0
Subtotal:			15	339		0		100		Continue	152	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
Life Cycle Configuration Analyses & Support to ICD Development	MIPR/In-House	Army Test & Evaluation Command(ATEC)/PM SKOT Rock Island & CASCOM Ord Cntr & School, Ft Lee	0	430	1-2Q	0		400	1-2Q	Continue	830	Continue

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**L46**

SATS Additionl Field Maintenance Modules and feasability of incorporating LHS capability	MIPR/In-House	Army Test and Evaluation Command (ATEC) & PM SKOT Rock Island	0	163	1-3Q	0		100	1-3Q	Continue	263	0
Subtotal:			0	593		0		500		Continue	1093	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
Conduct SKOT Modernization Efforts	MIPR/In-House	Army Test & Evaluation Command & PM SKOT Rock Island	125	143	1-2Q	0		290	1-3Q	Continue	558	0
Subtotal:			125	143		0		290		Continue	558	0
Project Total Cost:			**471**	**5447**		**0**		**1424**		**Continue**	**1803**	**0**

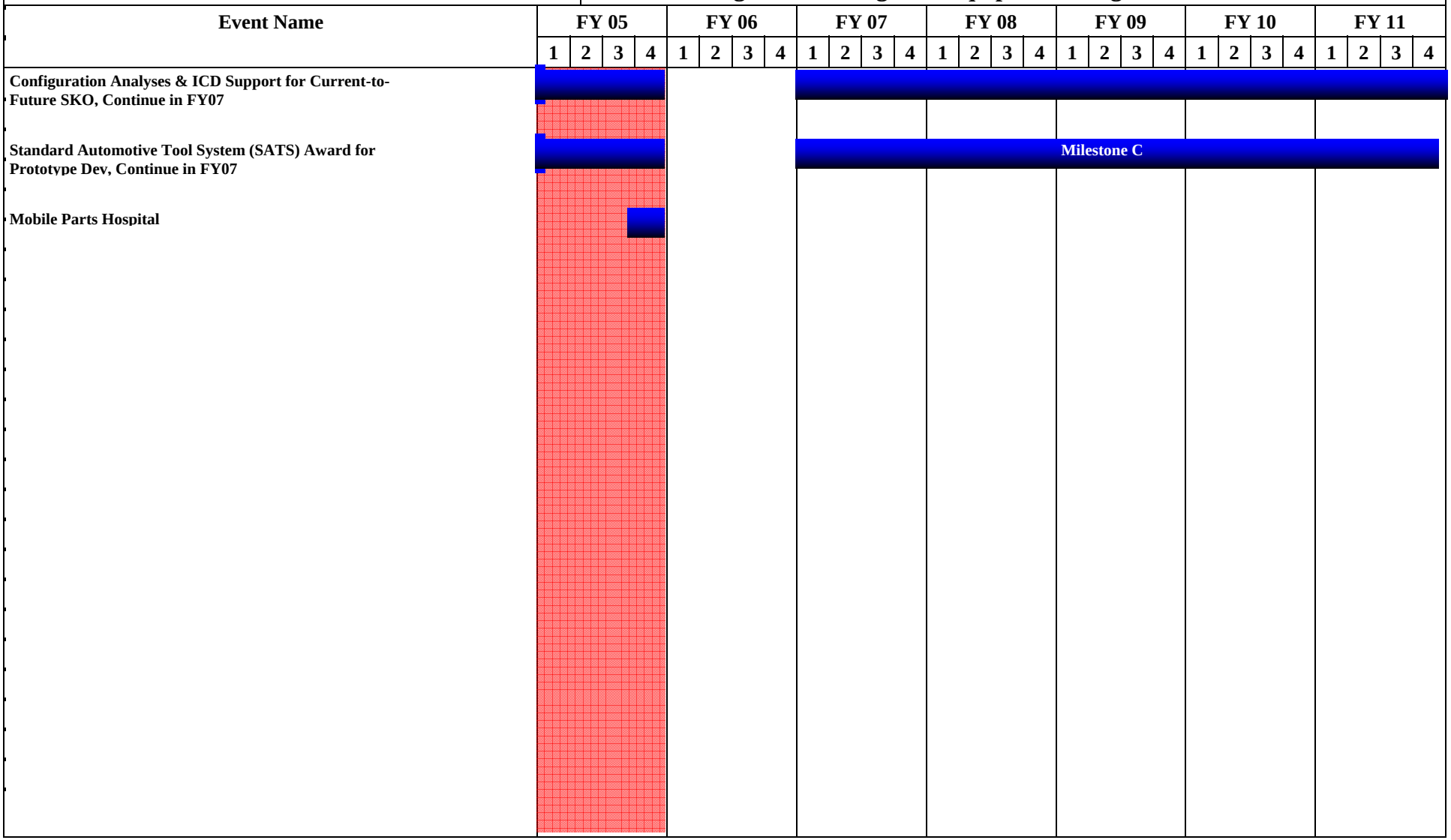
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev

PROJECT
L46



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604804A - Logistics and Engineer Equipment - Eng Dev**	**L46**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Configuration Analyses for Current-to-Future and SBCT SKOTand ICD Support	1-4Q		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Standard Automotive Tool Systems (SATS) Award for Prototype Dev	1-4Q		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Mobile Parts Hospital	1-4Q						