# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit) ACTIVITY PE NUMBER AND TITLE

February 2003

**BUDGET ACTIVITY** 

## 4 - Advanced Component Development and Prototypes

0603747A - Soldier Support and Survivability

	COST (In Thousands)		FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost		19558	13987	12213	11617	10073	11567	11828	Continuing	118899
610	FOOD ADV DEVELOPMENT	3627	3569	3771	3847	3441	1872	2129	2195	Continuing	27743
669	CLOTHING AND EQUIPMENT	4638	4645	8864	8366	8176	8201	9438	9633	0	65321
C09	SOLDIER SUPPORT EQUIPMENT - AD	6674	11344	1352	0	0	0	0	0	0	25835

A. Mission Description and Budget Item Justification: This program element supports component development and prototyping for organizational equipment, improved individual clothing and equipment, and other combat service support equipment that will enhance soldier battlefield effectiveness, survivability, and sustainment. The program element also supports the development of personnel and cargo parachutes, airdrop containers, and other aerial delivery equipment to improve safety and efficiency of airborne operations. This program element includes a development project for food, packaging, and combat feeding equipment systems; an advanced development project for individual clothing and equipment items; and an advanced development project for a new generation of field service support items, shelters, tents, space heaters, showers, and latrines to advance the quality of life for field soldiers.

This program supports the Legacy-to-Objective transition path of the Army's Transformation Campaign Plan (TCP).

### **ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)** February 2003 PE NUMBER AND TITLE

BUDGET ACTIVITY

4 - Advanced Component Development and Prototypes

0603747A - Soldier Support and Survivability

B. Program Change Summary	FY 2002	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2003)	17331	20788	22758	22637
Current Budget (FY 2004/2005 PB)	14939	19558	13987	12213
Total Adjustments	-2392	-1230	-8771	-10424
Congressional program reductions		-584	-772	-642
Congressional rescissions		-127		
Congressional increases				
Reprogrammings	-1987			
SBIR/STTR Transfer	-405	-519		
Adjustments to Budget Years			-7999	-9782

HQDA realigned funding to Program Element (PE) 0603804A (K39)

ARMY RDT&E BUDGET IT	STIFI	CATIO	N (R-2	A Exhi	bit)	Fe	bruary 2	003		
BUDGET ACTIVITY 4 - Advanced Component Development and Pro		e number <b>0603747A</b>			ivability	rability PROJECT 610				
COST (In Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
610 FOOD ADV DEVELOPMENT	3627	3569	3771	3847	3441	1872	2129	2195	Continuing	27743

A. Mission Description and Budget Item Justification: This project provides for the component development and prototyping of joint service food and combat feeding equipment designed to reduce the logistics burden and Operation and Support (O&S) costs of subsistence support to service personnel. Project supports development of rations and rapidly deployable field food service equipment. Project conducts demonstration and validation of improved subsistence and subsistence support items used to enhance soldier effectiveness and quality of life in all three Services, as part of an integrated DoD Food Research, Development, Test, Evaluation and Engineering Program. The Program is reviewed and validated twice annually by the DoD Food and Nutrition Research and Engineering Board as part of the Joint Service Food Program. This project develops critical enablers that support the Army's Transformation Campaign Plan Axes I (Trained and Ready), Line of Operation 2 (Modernization and Re-capitalization) by maintaining readiness through fielding and integrating new equipment. Also Line of Operation 3 (Manning the Force) by enhancing the field soldier's well-being and providing soldier usable equipment; Axes II (transforming the Operational Force), Line of Operation 9 (Deploying and Sustaining) by reducing sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands on lift, combat zone footprint, and costs for logistical support.

This project supports the Legacy-to-Objective transition path of the Army's Transformation Campaign Plan.

Accomplishments/Planned Program	FY 2002	FY 2003	FY 2004	FY 2005	L
Developed and evaluate improvements to field feeding systems as required by the Services for integration into future procurements.	120	380	0	0	
			, ,	1	1

BUDGET ACTIVITY  4 - Advanced Component Development and Prototypes	PE NUMBER AND TITLE  0603747A - Soldier Support and Su	Survivability PROJECT 610						
Accomplishments/Planned Program (continued) Continued improvement efforts to increase variety, enhance acceptability, increase consume the particle of the battlefield. Conducted comprehensive field evaluation of the Uncompleted data collection of Right-Sizing of Secondary Menu Components Project and be recommendations for number and/or size of portions per menu. Obtained Joint Service appropriate tray for bakery items. Continue to improve fielded group operational rations to consumption and improve nutritional intake to maintain peak performance on the battlefuechnologies and other Science and Technology (S&T) transitions into fielded group ratio Center Philadelphia (DSCP) procurement of the Arctic supplement for the UGR H&S. Description of the procurement.	nitized Group Ration Heat and Serve (UGR H&S). coased on usage data and developed pproval to convert from metal traycan to o increase variety, enhance acceptability, increase eld. Integrate state-of-the-art packaging ons. Provide support for the Defense Supply	FY 2002 617	FY 2003 540	FY 2004 569	FY 2005 553			
Completed evaluation of nanocomposite-enhanced barrier layer for current polymeric tray ray design and/other enhancements to optimize polymeric tray producibility, cost, shelf lenvironments. Leveraged Defense Logistics Agency (DLA) MANTECH efforts to increase changes to the item packaging specification. Complete in-house testing of monolayer polymoroducibility of monolayer tray and transition best nanocomposite-based technology to producibility.	life, utility in the field and survivability in frozen ase poly tray production throughout via validated lymeric tray prototypes. Demonstrate commercial	200	181	0	0			
nitiated efforts to investigate the practicality and field suitability of converting from #10 ISPs) for group-serving rations. Obtained prototype pouch materials and ISP product satesting of ISP product and packaging (material and assembly configuration). Conduct fie nilitary food service equipment. Based on performance, cost and commercial availability procurement and transition to procurement.	mples and initiated testing. Complete in-house eld testing of ISPs to ensure compatibility with	189	152	0	0			

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes	PE NUMBER AND TITLE 0603747A - Soldier Support and Su	Survivability PROJECT 610						
Accomplishments/Planned Program (continued) Continued improvement of individual rations to improve quality and warfighter acceptabil ration type and effect on morale and performance. Completed producibility evaluation of selesign for high-energy expenditure warfighters. Continue improvements of individual and evaluate advances in food processing and packaging technologies to improve quality and vanalysis and report for warfighter field test to determine ration type and effect on morale a packaging and self-heating improvements. Advance development of nutrient supplementation	shelf stable sandwich. Completed Carob Pack I assault rations; conduct field evaluations to warfighter acceptability. Complete statistical and performance. Advance development of	FY 2002 864	FY 2003 683	FY 2004 828	FY 2005 1377			
Upgraded and reduced the cost of the components on the Mobile Kitchen Trailer. Upgrad is ulated food container. Investigated flexible insulated food containers, tested and report eeding equipment and systems as required by the services for integration into future process.	ed. Develop and evaluate improvements to field	150	40	0	0			
Continued storage studies and determined correlation and validation protocols for accelerational requirements are met. Complete storage studies and finalize predictive protocecommended changes to procurement documents. Initiate efforts to provide storage guid Unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop a predictive model unitized Group Ration (UGR) shelf life requirements and to develop Ration (UGR) shelf life requirements and the life requirements and	ols for accelerated storage of rations, transition elines that correlate commercial use-by dates with	203	201	159	135			
Completed modification to the Air Force all-electric kitchen and transitioned the technical	data to the Air Force for procurement.	407	0	0	0			
abricated two 8x8x10 Refrigerated Containers for the Marine Corps and initiated developed on duct technical testing, transition to production, procurement; provide support.	pment testing to verify technical requirements.	358	266	140	0			
Completed right sizing of secondary menu components and transition to Defense Supply Carfighter field test to determine ration type and effect on morale and performance. FY03 ation delivery system prototype; and conduct evaluation to optimize consumption pattern raste.	3: Continue feeding pattern database; design	220	54	0	0			
Prepared Request For Procurement (RFP) to solicit and award a Research & Development abrication of the initial systems demonstration prototype Multi-Temperature refrigerated		299	0	0	0			
Design and fabricate prototype Multi-Temperature refrigerated container.		0	411	0	0			
Design and fabricate a single pallet expeditionary kitchen which uses commercial food serests, prepare technical data package and transition to the Air Force.	vice equipment. Conduct technical and user	0	182	0	0			

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Accomplishments/Planned Program (continued)	FY 2002			FY 2005
Conduct technical testing and operational testing of the prototype Multi-Temperature refrigerated container.	0	0	466	(
Conduct field evaluation of biocide agents and sanitizing wipes for enhanced field feeding sanitation.	0	122	0	(
Award Research and Development (R&D) contract for the development of gray water treatment system for use in handling and reuse of the water in a field food sanitation system.	0	0	261	(
Complete development of an ultra-filtration gray water treatment device and initiate design on lightweight components for a field food anitation system.	0	0	0	299
Prepare and release performance specification and contract solicitation for the development of the Battlefield Kitchen.	0	0	0	150
Design, fabricate, and test a ruggedized field portable surface scanning biosensor instrument for the detection of chemical and microbial contaminants on field rations.	0	0	0	351
Design, procure, and install additional freezer space aboard Navy ships to accommodate the transition to advanced foods and support hortages in mission endurance loading requirements, using modular technology.	0	181	175	(
Design and build a sanitation steam heater using wet base technology to heat the sanitation tanks, provide hot water for beverages and varm water for hand wash. Conduct technical and user tests; prepare technical data package and transition to Air Force.	0	176	182	(
nitiate development of final package configuration for compressed meal technology. Initiate producibility and field testing of compressed neals as components of fielded group-serving operational rations. Complete development of final package configuration for compressed neal technology. Complete producibility and field testing of compressed meals and transition technology to procurement.	0	0	280	28:
nitiate final design changes for Remote Unit Self-Heating Meal (RUSHM) and conduct pre-production testing to validate commercial roducibility. Initiate final confirmatory field tests validating utility for remote site feeding. FY05: Complete producibility demonstrations and field testing of Remote Unit Self-Heating Meal (RUSHM) and transition performance-based contract requirements to Procurement.	0	0	226	28:
Complete Ration Monitoring, Inventory and Tracking System (RMITS) field test and modify/upgrade sensor-based logistics tracking ystem. Prepare performance-based contracts requirements for transition to Procurement.	0	0	255	(
Conduct developmental/operational testing of prototype storage/dosing system(s) for fresh fruits and vegetables.	0	0	230	110
nitiate efforts to develop an optimized secondary packaging system (i.e., right-sized multi-service ration) based on lowest common conomical denominator in terms of group-feeding entree/component capabilities (e.g., tray size, portions) as well as logistical/equisitioning needs.	0	0	0	19

ARMY RDT&E BUDGET	ITEM J	USTII	FICAT	ION (I	R-2A E	xhibit)		Febru	ary 2003	
BUDGET ACTIVITY 4 - Advanced Component Development and l	Prototype	S		BER AND T		ort and S	Survivab	dity	PROJE <b>610</b>	ECT
Accomplishments/Planned Program (continued)  Develop an automated food preparation system using prepared food for use on future Navy ships.  FY 2002  FY 2003  FY 2004  FY 2005  0  0  99										
Totals							362	7 356	9 3771	3847
B. Other Program Funding Summary	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
RDTE, 0604713.548, Military Subsistence System	1800	1799	1985	1984	3361	1450	965	965	Continuing	Continuing
OPA3, M65803, Kitchen, Containerized, Field	3813	11984	7287	7032	7893	0	0	0	0	38009
OPA 3, M65802, Sanitation Center, Field Feeding	9616	8734	9643	8738	8933	9598	9091	Continuing	Continuing	
OPA 3, M65801, Refrigerated Containers	1066	0	C	5249	5178	10057	10230	10415	Continuing	Continuing

C. Acquisition Strategy: Project development transition to System Development & Demonstration into procurement.

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BUDGET ACTIVITY 4 - Advanced Compo	onent Deve	lopment and Prototy	ypes		umber ani <b>3747A - S</b>	OTITLE oldier Su	pport and	l Surviva	ivability PROJECT 610			
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Targe Value o Contrac
a . Joint Service Food/Combat Feeding Equipment	In-House	SBCCOM, Natick, MA	18940	1520	1-4Q	1559	1-4Q	1564	1-4Q	Continue	23583	Continue
b . Joint Service Food/Combat Feeding Equipment	Contracts	Various	7353	1403	1-3Q	1518	1-4Q	1524	1-4Q	Continue	11798	Continuo
Subtotal:			26293	2923		3077		3088		Continue	35381	Continue
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
			0	0		0		0		0	0	(

	ARM	Y RDT&E CO	ST AN		` ,				Febr	ruary 200		
BUDGET ACTIVITY 4 - Advanced Compo	nent Deve	lopment and Prototy	ypes		jmber ani <b>3747A - S</b>		l Surviva	vability PROJECT 610				
II. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Targe Value o Contrac
a . Joint Service Food/Combat Feeding Equipment	MIPR	DTC, Maryland & AEC, Virginia	3302	565	1-3Q	572	1-4Q	637	1-4Q	Continue	5076	Continu
Subtotal:			3302	565		572		637		Continue	5076	Continu
V. Management Services  a . Project Ofc Management	Contract Method & Type In-House	Performing Activity & Location  SBCCOM, Natick, MA	Total PYs Cost 1494	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date 1-4Q	FY 2005 Cost	FY 2005 Award Date 1-4Q		Total Cost 1819	Contra
a . Project Ofc Management	Method & Type	Location	PYs Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Complete	Cost	Value o Contrac Continu
Subtotal:			1494	81		122		122		Continue	1819	Continu
Project Total Cost:			31089	3569		3771		3847		Continue	42276	Continu

ARMY RDT&F	ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)										
BUDGET ACTIVITY 4 - Advanced Component De		E NUMBER A 1603747A			vability PROJECT 669						
COST (In Thous	ands)	Y 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
669 CLOTHING AND EQUIP	MENT	4638	4645	8864	8366	8176	8201	9438	9633	0	65321

A. Mission Description and Budget Item Justification: This project provides state-of-the-art technology to develop improved tactical and non-tactical clothing and individual equipment to enhance the lethality, survivability, sustainability, and mobility of the individual soldier. This project supports the Legacy-to-Objective transition path of the Army's Transformation Campaign Plan (TCP).

Accomplishments/Planned Program	FY 2002	FY 2003	FY 2004	FY 2005
Procured test items and conducted user evaluation for the Military Eye Protection System, completed contract phase II.	1250	0	0	0
Conducted user evaluation, obtained feedback, conducted early configuration management planning, and achieved Milestone A/B for the Advanced Combat Uniform and continued design integration and fabricated 9-12 prototype systems.	2402	0	0	0
Complete initial testing for the Advanced Combat Uniform and commence developmental contract phase II.	0	3460	0	0
Commence developmental contract phase III for the Advanced Combat Uniform and complete developmental contract phase II.	0	0	4798	0
Conducted market survey and evaluated alternative approaches to developing a Modular Combat Boot and obtained user input.	193	0	0	0
Obtain test items and initiate technical testing and commence for extended user evaluation for the Modular Combat Boot and achieve Milestone A/B.	0	310	0	0
Complete user evaluation, present results to the Army Uniform Board for the Modular Combat Boot.	0	0	1500	0
Improve Small Arms Protective Insert, investigate lighter, more producible ceramic materials for increased ballistic protection and reduced weight in the Small Arms Protective Insert for the Interceptor Body Armor System.	0	150	0	0
Improve Small Arms Protective Insert, solicit sample items from industry, conduct technical testing, and downselect to a single contractor.	0	0	800	0
Improve Small Arms Protective Insert, award developmental contract and commence development.	0	0	0	2850
Improve Chemical Protective Gear, investigate lighter, less expensive materials for increased chemical protection for soldiers in the tactical environment.	0	0	0	2220

ARMY RDT&E BUDGET	ITEM J	IUSTII	FICAT	ION (F	R-2A E	xhibit)		Febru	ary 2003	
BUDGET ACTIVITY 4 - Advanced Component Development and	Survivability PROJECT 669									
Accomplishments/Planned Program (continued) Individual Water Purification/Generation System: conduct ma	rket survey and	evaluate the	availability	of technolog	y to allow in	dividual	FY 200	2 FY 200 0	3 <u>FY 2004</u> 0 150	FY 2005 0
soldiers to purify/generate water.  Individual Water Purification/Generation System: achieve Mil	estone A/B, sol	icit sample i	tems from in	dustry, and in	nitiate techni	cal testing.		0	0 0	1950
Conduct technical and program reviews, provide In-house eng	ineering suppo	rt services, a	nd computer	services.			79	3 72	5 1616	1346
Totals							463	8 464	5 8864	8366
B. Other Program Funding Summary	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
RDTE, 0604713.L40, Clothing and Equipment	4884	1310	3100	4451	8013	9008	9242	9164	Continuing	Continuing
OMA, 121017, Central Funding and Fielding	90013	73401	80941	113533	114101	114672	C	0	Continuing	Continuing

C. Acquisition Strategy: Programs will transition to System Development and Demonstration (SDD) followed by sufficient maturity of items, which will be type classified and transitioned into production.

#### **ARMY RDT&E COST ANALYSIS(R-3)** February 2003 PE NUMBER AND TITLE BUDGET ACTIVITY PROJECT 4 - Advanced Component Development and Prototypes 0603747A - Soldier Support and Survivability 669 FY 2004 Target I. Product Development Contract Performing Activity & Total FY 2003 FY 2003 FY 2004 FY 2005 FY 2005 Cost To Total Method & PYs Cost Value of Location Cost Award Cost Award Cost Award Complete Cost Type Date Date Date Contract a . Clothing & Individual MIPR SBCCOM, Natick, MA 2551 1578 20 1654 2Q Continue 8204 2421 2Q Continue Equipment b. Clothing & Individual 6472 1728 20 3579 20 3572 20 Continue 15351 Contracts Various Continue Equipment 9023 3306 5233 5993 Continue 23555 Continue Subtotal: Remarks: Product development costs vary annually depending on the number and type of programs being evaluated. Contract Total FY 2003 FY 2003 FY 2004 FY 2004 FY 2005 FY 2005 Cost To II. Support Cost Performing Activity & Total Target Method & Location PYs Cost Cost Award Cost Award Cost Award Complete Cost Value of Date Date Contract Type Date a. Misc Support MIPR LOGSA, AL 150 50 20 50 2Q 100 2Q Continue 350 Continue b. Misc Support 0 20 20 600 20 0 1150 0 Contract Various 550 150 50 700 1500 600 Continue Continue Subtotal:

Remarks: Support costs can vary annually depending on the number and types of items being evaluated.

	AKM	IY RDT&E CC	IST AN	ALY	313(K-3)				Febi	ruary 200	3		
BUDGET ACTIVITY 4 - Advanced Comp	onent Deve	lopment and Protot	ypes		number ani <b>03747A - S</b>		pport and	l Surviva	bility		PROJEC' <b>669</b>		
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 200 Cos		FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Targe Value o Contrac	
a . Various	MIPR	ATEC, VA	712	56	2Q	1415	2Q	327	2Q	Continue	3018	Continu	
Subtotal:			712	56		1415		327		Continue	3018	Continue	
Remarks: Testing costs vary	annually by ite	m.											
Remarks: Testing costs vary  IV. Management Services  a . Project Management Support	Contract Method & Type In House	Performing Activity & Location  PM Soldier, Fort Belvoir, VA	Total PYs Cost	FY 2000 Cos	t Award Date	FY 2004 Cost	FY 2004 Award Date 2Q	FY 2005 Cost 1346	FY 2005 Award Date 2Q	Cost To Complete	Total Cost	Target Value of Contrac Continue	
IV. Management Services  a . Project Management	Contract Method & Type In House	Performing Activity & Location  PM Soldier, Fort	PYs Cost	Cos	t Award Date 2Q	Cost	Award Date	Cost	Award Date	Complete	Cost	Value of Contract Continuo	
IV. Management Services  a . Project Management Support	Contract Method & Type In House	Performing Activity & Location  PM Soldier, Fort Belvoir, VA	PYs Cost 1365 1365	72.	t Award Date 2Q	Cost 1616 1616	Award Date	Cost 1346	Award Date	Complete	5052	Value of Contrac	

Schedule Profile Det	tail (R-4a)	Exhibi	t)			February 2003			
BUDGET ACTIVITY 4 - Advanced Component Development and Prototy		ER AND TIT 7 <b>A - Sold</b>		urvivabi	vability PROJECT 669				
Schedule Detail	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Advanced Combat Uniform: conducted controlled user evaluation and achieved Milestone A/B.	4Q								
Modular Combat Boot: achieve Milestone A/B, obtain test items and initiate testing.		2Q							
Individual Water Purification/Generation System: achieve Milestone A/B.				2Q					

A Life Cycle Systems Review is held during the 2nd and 4th quarter of each fiscal year.

ARMY RI	ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) February 2003											
BUDGET ACTIVITY 4 - Advanced Compor	nent Development and Pro	ototypes		e number 0 <b>603747A</b>			and Surv	ivability		PROJECT <b>C09</b>		
COST	(In Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost	
C09 SOLDIER SUPP	ORT EQUIPMENT - AD	6674	11344	1352	0	0	0	0	0	0	25835	

A. Mission Description and Budget Item Justification: This project supports component development and prototyping of critical soldier support systems such as shelter systems, showers, latrines, heaters, environmental control units, and other combat service support equipment that will improve unit sustainability and combat effectiveness. Project supports demonstration and validation of aerial delivery systems for personnel and equipment, with emphasis on reduced incidence of injuries, improved safety and accuracy, and increased survivability of aircraft, personnel, and equipment. Project also supports the development of tactical rigid-wall shelters which provide highly mobile, joint service platforms for the digitization of the battlefield, housing of critical vehicle-mounted battlefield systems, medical care capabilities and high tech maintenance. Additionally, the project develops critical enablers that support the Army's Transformation Campaign Plan Axes I (Trained and Ready), Line of Operation 2 (Modernization and Re-capitalization) by maintaining readiness through fielding and integrating new equipment. Also Line of Operation 3 (Manning the Force) by ensuring Army forces are capable of rapid deployment through aerial delivery initiatives and by reducing sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands in lift, combat zone footprint, and costs for logistical support.

This project supports the Legacy-to-Objective transition path of the Army's Transformation Campaign Plan (TCP).

Accomplishments/Planned Program	FY 2002	FY 2003	FY 2004	FY 2005
Conducted initial testing to evaluate integrated technologies and assess integration risks on Low Cost Aerial Delivery System (LCADS).	600	0	0	0
Completed Market Investigation for the Mobile Integrated Remains Collection System (MIRCS) and initiate solicitation development.	180	0	0	0
Conduct Milestone A decision and award contract to develop initial test prototypes of Mobile Integrated Remains Collection System (MIRCS) (2 @ \$350K ea) and transition to System Development & Demonstration (SDD).	0	1708	0	0
Completed Dual Row Airdrop System (DRAS) single ship and formation drop evaluations.	1270	0	0	0
Purchase initial developmental test items and data items for Extraction Parachute Jettison System (Heavy) EPJS(H).	0	1150	0	0
Conducted safety of flight tests to assess risks associated with follow on development of components and to define operational conditions for Extraction Parachute Jettison System (Heavy) EPJS(H).	800	0	0	0
Award contracts for EPJS-H component development.	0	1309	0	0
Conducted proposal evaluation and initial concept testing on EPJS(H).	900	0	0	0

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes PE NUMBER AND TITLE 9ROJECT 0603747A - Soldier Support and Survivability C09

A second lighter and A Discourse (configured)	EV 2002	EV 2002	EV 2004	EX 2005
Accomplishments/Planned Program (continued) Purchased initial developmental test items for Enhanced Container Delivery System (ECDS).	FY 2002 750	FY 2003	FY 2004	FY 2005
	700	0	0	0
Prepared and conducted initial testing on the ECDS to evaluate integrated technologies and assess risk. Transition to System Development and Demonstration (SDD).	700	U	U	U
Prepare program documentation for Cargo Bed Covers (CBCs) Types 5 & 6 and Conduct Milestone B. Prepare Solicitation for	0	544	0	0
RDTE/Production Contract for CBCs Type 5 & 6. Acquire Test prototypes, conduct Test & Evaluation on CBCs Type 5 & 6.				
Initiate program documentation for Milestone C for Types 5 & 6.				
Purchase data rights for Advanced Tactical Parachute System (ATPS).	0	1500	0	0
Conduct Milestone B Automatic Activation Device (AAD).	0	0	726	0
Conduct in house testing and procure Developmental Testing (DT) test items for AAD.	0	0	626	0
Conduct Milestone B for Space Heater Convective (60K BTU) and enter Advanced Component Development.	0	1000	0	0
Completed Milestone C on Cargo Bed Cover (CBC) Types III/IV. Completed P3I effort for CBC III/IV.	1174	0	0	0
Completed Milestone C on Containerized Latrine.	300	0	0	0
Award developmental contract for Low Cost Aerial Delivery System (LCADS) components.	0	2000	0	0
Fabricate prototypes of Large Capacity Field Heater (10@\$40K each) and conduct initial evalutation of operational suitability. Transition to SDD.	0	833	0	0
Complete initial developmental test items for Improved Environmental Control Unit (IECU) effort.	0	900	0	0
Conduct Milestone A decision and complete Market Investigation for Rapid Rigging/DE-Rigging Airdrop System.	0	400	0	0
Totals	6674	11344	1352	0

ARMY RDT&E BUDGET I	TEM J	USTIE	FICAT	ION (I	<b>R-2A</b> E	xhibit)		Febru	ary 2003	
BUDGET ACTIVITY 4 - Advanced Component Development and P	rototypes	3		BER AND TI 7 <b>A - Sol</b> o		ort and S	Survivab	ility	PROJE <b>C09</b>	СТ
B. Other Program Funding Summary	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
RDTE, 0604713.C40, Soldier Support Equipment M82706, Containerized Latrine System	11083 1021	12197 648			C	0	(	0	0	26192 2521
M82708, Containerized Batched Laundry	0	2927			C	0	C	0	0	10745

C. Acquisition Strategy: Systems will progress to System Development & Demonstration and transition into production.

BUDGET ACTIVITY 4 - Advanced Compo	onent Deve	lopment and Protot	ypes		iumber ani <b>)3747A - S</b>		pport and	d Surviva	ability	PROJEC <b>C09</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
a . Soldier Support Equipment	In-House	SBCCOM (NRDEC), Natick, MA	18486	2150	1-4Q	1352	1Q	0		0	21988	(
b . Soldier Support Equipment	Contracts	Various	14886	3760	2Q	0		0		0	18646	(
Subtotal:			33372	5910		1352		0		0	40634	(
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
Subtotal:			0	0		0		0		0	0	(

BUDGET ACTIVITY 4 - Advanced Comp	Evaluation Contract Method & Type Support MIPR DTC, MD & ATC, VA 69  Subtotal: Performing Activity & To Py's Contract Method & Type  Mamagement In-House PM Force Sustainment Systems, Natick, MA  Management In-House PM-Soldier, Fort Belvoir, VA  Management In-House SBCCOM, Natick, MA  Management In-House SBCCOM, Natick, MA  Management In-House SBCCOM, Natick, MA		PE N	iumber ani 03747A - S	O TITLE	pport and	l Surviva	February 2003 PROJECT Cop				
III. Test and Evaluation	Method &		Total PYs Cost	FY 2003 Cost		FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
a . Soldier Support Equipment	MIPR	DTC, MD & ATC, VA	6955	2884	1-4Q	0		0		0	9839	(
Subtotal:			6955	2884		0		0		0	9839	(
IV. Management Services	Method &	Performing Activity & Location	Total PYs Cost	FY 2003 Cost		FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
a . Project Mamagement Support			0	1200	1-4Q	0		0		0	1200	(
b . Project Management Support	In-House	· ·	3579	1350	1-4Q	0		0		0	4929	(
c . Project Management Support	In-House	SBCCOM, Natick, MA	361	0		0		0		0	361	(
Subtotal:			3940	2550		0		0		0	6490	(
Project Total Cost:			44267	11344		1352		0		0	56963	(

BUDGET ACTIVITY 4 - Advanced Component Development and Prototy	pes		ER AND TIT <b>7A - Sold</b>		urvivabi	vability C09			
Schedule Detail	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Conducted initial testing on Low Cost Aerial Delivery	3Q								
System.									
Conduct Market Investigation, conduct MS B for the Clothing		2Q							
Repair System.									
Completed Market Investigation for the Mobile Integrated	3Q								
Remains Collection System.									
Conduct MS A and award contract for Mobile Integrated		2Q							
Remains Collection System.									
Completed Dual Row Airdrop System single ship and	4Q								
formation drop evaluations.		20							
Purchase initial developmental test items for Extraction		3Q							
Parachute Jettison System (Heavy).	20								
Conducted safety of flight tests for Extraction Parachute	3Q								
Jettison System (Heavy).  Award contracts for Extraction Parachute Jettison System		20							
•		2Q							
(Heavy) components.  Conducted proposal evaluation and initial testing on	2Q								
Extraction Parachute Jettison System (Heavy).	2Q								
Conduct market investigation for the Ballistic Protection		3Q							
System.		30							
Purchased initial developmental test items for Enhanced	1Q								
Container Delivery System.	14								
Conduct initial testing on the Enhanced Container Delivery		2Q							
System.		- 4							
Conduct MS B and award contract for Cargo Bed Covers		3Q							
Type 5 & 6.		- 4							
Purchase data rights for Advanced Tactical Parachute System.		2Q							
Conduct Milestone B Automatic Activation Device.			10						

Schedule Profile Detail	(R-4a	Exhibi	t)				February 2003			
BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes			ER AND TIT <b>7A - Sold</b> i		urvivabil	vability				
Schedule Detail (continued)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		
Complete IECU test items.		2Q								
Conduct MS A and initiate Market Investigation for Rapid		2Q								
Rigging/DE-Rigging Airdrop System.										
Conduct in house testing and procure Developmental Testing			2Q							
(DT) test items for AAD.										
Conduct Milestone B for Space Heater Convective.		2Q								
Completed MS C on Cargo Bed Cover Types III/IV. P3I effort for CBC III/IV was completed.	3Q									
Completed Milestone C on Containerized Latrine.	4Q									
Award developmental contract for Low Cost Aerial Delivery		2Q								
System components.										
Fabricate prototypes and conduct initial evaluation of Large Capacity Field Heater.		3Q								