ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604713A - Combat Feeding, Clothing, and Equipment

	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	107912	3334	3017	2520	2519	2154	2199	0	300128
548	MIL SUBSISTENCE SYS	1945	3334	3017	2520	2519	2154	2199	0	21294
667	LAND WARRIOR	76114	0	0	0	0	0	0	0	208246
668	SOLDIER ENHANCE PGM	15168	0	0	0	0	0	0	0	34789
680	MOUNTED WARRIOR	9022	0	0	0	0	0	0	0	9022
C40	SOLDIER SUPPORT EQUIPMENT - ED	549	0	0	0	0	0	0	0	14312
L40	CLOTHING & EQUIPMENT	5114	0	0	0	0	0	0	0	12465

A. Mission Description and Budget Item Justification: This program element (PE) supports System Development and Demonstration (SDD) and Non-Developmental Item (NDI) evaluation of unit/organizational equipment, clothing, individual equipment, field shelters, field service equipment, subsistence, and food service equipment that will enhance soldier efficiency, effectiveness, lethality, sustainability and survivability. The system integration of demonstrated subsystems, components, or NDI in order to reduce integration risks associated with system development and demonstration of various commodities, components, and technologies are also included in this PE. The PE also supports demonstration of engineered development models and the associated developmental and operational testing of systems, components, and commodities prior to their transition to the Production and Deployment phase to include a new generation of field service support items of soldier equipment. The Land Warrior program will produce the first fully integrated fighting system for dismounted combat soldiers. The Soldier Enhancement Program supports soldier items that will transition into production in three years or less. In FY06, Projects 668,C40, L40 transition to a new Program Element, 0604601A. Projects D667,D680 transition to Program Element, 0604827.

ARMY RDT&E BUDGET ITE	M JUSTIFIO	CATION	(R2 Ex	khibit)	February 2006
BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER 0604713A				
B. Program Change Summary	FY 2005	FY 2006	FY 2007		
Previous President's Budget (FY 2006)	98445	3383	2952		
Current BES/President's Budget (FY 2007)	107912	3334	3017		
Total Adjustments	9467	-49	65		
Congressional Program Reductions		-15			
Congressional Rescissions		-34			
Congressional Increases					
Reprogrammings	9478				
SBIR/STTR Transfer	-11				
Adjustments to Budget Years			65		

February 2006 **ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)** BUDGET ACTIVITY PE NUMBER AND TITLE **PROJECT** 5 - System Development and Demonstration 0604713A - Combat Feeding, Clothing, and Equipment 548 FY 2005 FY 2009 FY 2010 FY 2011 FY 2006 FY 2007 FY 2008 Cost to Total Cost COST (In Thousands) Estimate Estimate Estimate Estimate Estimate Estimate Estimate Complete MIL SUBSISTENCE SYS 548 1945 3334 3017 2520 2519 2154 2199 21294

A. Mission Description and Budget Item Justification: This project supports the development and demonstration and Non-Developmental Item (NDI)/Commercial Off The Shelf (COTS) evaluation of combat feeding equipment to enhance soldier efficiency and survivability, and to reduce food service logistics requirements for all four services. The project supports multi-fuel, rapidly deployable field food service equipment initiatives and engineering and manufacturing development to improve equipment, enhance safety in food service, and decrease fuel and water requirements. This project develops critical enablers that support the Joint Future Force Capabilities and Joint Expeditionary mindset, by maintaining readiness through fielding and integrating new equipment; by enhancing the field soldier's well-being; and providing soldier usable equipment. They also reduce sustainment requirements, related Combat Support/Combat Service Support (CS/CSS) demands on lift, the combat zone footprint, and costs for logistical support.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY06-07: Completes operational testing of components/packaging for all combat ration platforms; individual (MRE), group (UGR), assault/special purpose (MCW/LRP) to ensure continuous product improvement. Conducts operational testing of UGR-B. Presents product package recommendation decision brief to Joint Services Operation Ration Forum (JSORF), obtains approval. Completes procurement documentation and transitions to Defense Logistics Agency (DLA).	0	764	233
FY 07: Provides decision brief on new First Strike Ration (FSR) to the JSORF. Finalize procurement documentation for FSR and transition to Defense Logistics Agency (DLA).	0	0	84
FY05-FY07: Completed in house tests and evaluation of the Good Cow milk machine, including recommendation for shipboard user tests. Initiated the development of an advanced combination oven for shipboard food service and a food warmer for Los Angeles Class submarine, completed refinements of advanced applications. Developed product for Insta-Cook automated mashed potato-dispensing machine for shipboard use. FY: 06-07 Serve as certifying agent for all Navy Vessels for Food Service Equipment to be used onboard Navy vessels. Monitor commercial development in food service to accommodate reduction in shipboard labor, extend service life of equipment. Evaluate automated food production equipment for shipboard application. Test; down select; and list approved Galley equipment in Navy Food Service Equipment catalog.	425	542	434
FY05: Developed and tested integration of thermostatic controlled Modern Burner Unit (MBU) in field kitchen appliances and field sanitation systems.	89	0	0
FY05: Completed Assault Kitchen (AK) developmental testing at Aberdeen Test Center, Maryland. FY 06: Prepare Milestone C documentation and performace specification for the AK and transition into production.	276	95	0
FY05: Developed alternate layout for Load Handling System compatible Containerized Kitchen (CK) prototype and release contract to upgrade prototype. Developed a CK augmentation kit to be used by MEDCOM. FY 06: Conduct cost analysis and design a system to effectively reduce by-products of combustion and improve thermal efficiency of cooking equipment in the CK. FY 07: Fabricate and test the recommended improved system for the CK.	205	481	558
FY06: Award contract to develop a co-generator that produces heat for cooking and sanitation as well as electrical energy for the Mobile Kitchen Trailer (MKT), CK, and other systems. Evaluates the prototype co-generator through bench top testing and optimize the design.	0	248	278

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Exhibit R-2A Budget Item Justification

ARMY RDT&E BUDGET ITEM J	ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)				
BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604713A - Combat Feeding, Clothing, and	d Equipment	PROJECT 548		
FY 07: Conduct Developmental and Operational Testing on an optimized pro-	ototype.				
FY05: The Single Pallet Expeditionary Kitchen Advanced (SPEK-A) system 104th Fighter Wing to support field-feeding operations as part of a Unit Trair performance of the SPEK-A system meet the Air Forces requirements of feed rations. User field tests of the latest SPEK-A field feeding equipment such as The Mobile Field Griddle was submitted for application of US Patent. The T the Air Force to include a revised pack out manual to reduce the logistical for include preventive maintenance sections, as well as detailed engineering drav	ting Assembly (UTA) during the Thunder War Exercise. The ling 550 Airmen in a 2-hour period both UGR-H&S and A the Mobile Field Griddle and Oven were highly successful. echnical Data Package (TDP) was updated and delivered to otprint, a training video, equipment operational procedures to	200	0	(
FY05: Completed fabrication testing, and functionality testing of the Advanct testing to evaluate system performance and functionality. Transitioned techn Force for procurement.		175	0	0	
FY05-FY07: Investigated an auxiliary accessory for the Tray Ration Heater/Neverages in the field. Designed and tested a flexible polymer bag with weld handle, and flat bottom for stability. Developed and tested sub- hatchable, lig frozen product at sea. FY 06-07: Continue to develop and evaluate improver for integration into existing and future systems to improve user acceptance of Service equipment integrated into AFC DIC and Bear (initial/final) kitchens a overall costs, improve capability, and ensure Joint Service commonality. Refrequirements. Conducts, user evaluation, and provide support, performance scorps.	ed screw top spout for pouring and sealing, integral holding shtweight, flexible container to transport highly perishable ments to fielded food service systems as required by services fielded equipment. Test and evaluate approved Navy Food and Marine Corps Tray Ration Heater in order to reduce fine a Quad Cold refrigeration system to meet Marine Corps	200	138	134	
FY07: Developes oven and skillet improvements to the Mobile Kitchen Trail	er (MKT).	0	0	131	
FY05: Conducted field evaluation of Containerized Deployment Kitchen (Cl develop improved food service efficiency, enhance cooked food quality and edveloped prototype Mobile Hot Food Counter for replacement in current CE Skittle and Pressure-less steamer for equipment enhancements to the CDK. If and conduct user field tests to optimize the CDK's operational efficiency. Up equipment replacement list for Air Force Procurement and an enhancement p	extend the life of the CDK inventory. Designed and DK. Tested and conducted user evaluations of the Legion FY 06: Continues to implement equipment for modernization date one CDK from Tyndall Air Force Base and develop	175	299	0	
FY06: Initiate development of grey water treatment options for the field food mitigation of combustion by-products. FY 07: Conduct technical evaluation a containerized or trailer mounted field food sanitation system.		0	246	225	
FY06: Complete Multi-Temperature Refrigerated Container System (MTRCS Demonstration. Prepare Milestone C for transition into production.	S) Developmental/Operational Testing and Logistics	0	306	0	
FY07: Complete Market Research and develops/tests a sanitation kit for field Field Sanitation capability.	feeding operations in remote or forward areas to provide	0	0	225	
FY 06: Complete Market Research to identify COTS items for providing chil vehicles. Purchase and evaluate prototypes.	led drinking water storage capability in military tactical	0	74	0	
FY07: Conduct developmental and operational testing on prototype Integrate	d Bare Base electric field kitchen and sanitation center.	0	0	266	

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Exhibit R-2A Budget Item Justification

ARMY RDT&E BUDGE	Γ ITEM .	JUSTIFI	CATIO	N (R2a I	Exhibit)			Februar	y 2006			
BUDGET ACTIVITY 5 - System Development and Demonstrat	on		ER AND TITLI A - Comba		Clothing, a	nd Equipm	ent	PROJECT 548				
FY 05: Completed testing and evaluation on selected icem counter-top icemaker/dispensers and provided recommend submarines. Completed report on large batch type bin unit transitioned to the Navy.	ations to the Nav	y for procureme	nt and installati	ion on Navy shi	ps and		200	0	0			
FY 07: Procures new coated food service equipment to rec field-testing of durable nonstick coatings and disposable capproval.							0	0	278			
FY 07: Integrates food service equipment into the AF reco Resources (BEAR) single kitchen system to replace four s developmental testing and operational testing.							0	0	171			
FY 06: Procure prototype Optimized Insulated Food conta procurement documentation to reflect the improved lightw				esults. Prepare/	modify the		0	141	0			
Total							1945	3334	3017			
B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Com	npl Total Cost			
RDTE, 0603747.610, Food Adv Dev	3846	3344	2770	3825	3921	4315	4405	CON	NT CONT			
OPA3, M65803, Kitchen, Containerized, Field	8163	5685	8623	8351	12592	13981	14668	CON	NT CONT			
OPA 3, M65802, Sanitation Center, Field Feeding	6084	12285	16859	16252	15704	15888	15000	CON	NT CONT			

C. Acquisition Strategy Complete System Development and Demonstration of food items and equipment for transition into competitive procurement contract.

ARMY RDT&	&E COST	Γ ANALYSIS	(R3)							Februar	y 2006	
BUDGET ACTIVITY 5 - System Development a	and Demons	tration	PE NUMBE 0604713 .			d Equip	PROJECT 548					
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	Targe Value o Contrac
Various combat feeding eq, multi- fuel and water eq	In-House	RDECOM, NSC	11181	935	1-4Q	1510	1-4Q	1399	1-4Q	Continue	Continue	Continu
DoD Field Feeding Equipment	Contracts	Various	2715	345	1-4Q	575	1-4Q	492	1-4Q	Continue	Continue	Continu
Army Field Feeding Equipment Development	In-House	PM Force Sustainment System (FSS)	257	204	1-4Q	340	1-4Q	291	1-4Q	Continue	Continue	Continue
Subto	tal:		14153	1484		2425		2182		Continue	Continue	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	Targe Value o
Subto			0		Dute		Bute		Bute			Contrac
Remarks: Not Applicable			-	-		I						
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	Targe Value o Contrac
Various	MIPR	TECOM/OEC/ATC	4300	348	1-4Q	580	1-4Q	496	1-4Q	Continue	5724	Continu
Subtot	tal:		4300	348		580		496		Continue	5724	Continu
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	Targe Value o Contrac
CFP Management	In-House	RDECOM	1069	113	1-4Q	329	1-4Q	339	1-4Q	Continue	0	Continu
Subtot	tal:		1069	113		329		339		Continue	0	Continu

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Exhibit R-3 ARMY RDT&E COST ANALYSIS

ARMY RDT&E COST ANALY		February 2006					
SUDGET ACTIVITY S - System Development and Demonstration	PE NUMBER AND TITLI 0604713A - Comba	and Equipment	PROJECT 548				
Project Total Cost:	19522 1945	3334	3017	Continue	5724 Contin		

Schedule Profile (R4 Exhibit)																		F	ebr	uai	y 20	006		
BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604713A - Combat Feeding, Clothing, and Equi										quip	PROJECT 548											
Event Name		FY 05		FY 06			FY 07		FY 08				FY 0		FY 10			-	FY					
(1) Complete fabrication of Advance Design Refrigerator 1200 (ADR1200), (2) Design skillet and oven improvements for MKT, (3) Conduct DT and OT for MKT skillet and oven	1	2	3 4	1	2	3	4	1	2 3	3 4	1	. 2	3	3	1	2 3	3 4	1	2	2 3	4	1	2	3
DT on Assault Kitchen																								
Contract to upgrade CK prototype																								
Conduct DT/OT on Field Kitchen Co-generator																								
(4) MS C on Assault Kitchen, (5) MS C for MTRCS, (6) Upgrade SPEK-A TDP and transition documentation to AF			6			•	5		4															
Integrate equipment from Navy to AF BEAR Kitchen																								
Transition Advanced AF Equipment and systems to AF										•														
Transition advanced MC equipment and systems to MC																								
(7) Evaluate Water chiller system, (8) Select Bulk Ice Machines shipboard evaluation. Provide Recommendation to Navy			8	L.		4	7																	
Conduct DT & OT on waste to Energy Conversions System, transition to procurement																								

Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604713A - Combat Feeding, Clothing, and Equipment

548

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Continue Developmental and Operational Testing for the Advanced Design Refrigerator -1200 (ADR-1200)	3Q	11 2000	11 2007	11 2000	11 2007	11 2010	11 2011
Prepare performance specification for ADR1200 and transition to Services for procurement.	4Q						
Redesign Containerized Kitchen (CK) prototype.	4Q						
Conduct Assault Kitchen Developmental Testing.	2-3Q						
Conduct Milestone C on Assault Kitchen (AK).		3Q					
Upgrade SPEK-A Technical Data Package and transition documentation to AF for procurement.	4Q						
Transition Advanced AF equipment and systems to AF for procurement.						4Q	1-4Q
Integrate equipment from Navy program to AF BEAR Kitchen and Marine Corps Tray Ration Heater.			4Q	1-4Q			
Transition Advanced Marine Corps (MC) equipment and systems to MC for procurement.					4Q	1-4Q	1Q
Transition Advanced Navy Equipment and Systems to Navy for procurement.	4Q						
Conduct DT and OT on MKT/CK co-generation system.			1-4Q				
Complete fabrication of the ADR1200.	2Q						
Select bulk ice machines for shipboard evaluation. Provide specifications and recomendations to Navy	4Q						
Conduct Operational Test of individual ration components		3Q	3Q	3Q	3Q	3Q	3Q
Transition individual rations/ration components documentation to DLA and services		4Q	4Q	4Q	4Q	4Q	4Q
Conduct operational test of Unitized Group Ration (UGR) -B		3Q					
Transition updated UGR-B assembly and component documents to DSCP for procurement		4Q					
Conduct operational test of UGR components/packaging			1Q				
Transition UGR component/packaging documents to DSCP for Procurement			4Q				
]						

Conduct DT and OT on Basic Expeditionary Airfield Resource (BEAR) System and transition to Air Force			4Q	4Q	4Q	4Q	
Conduct DT and OT on Waste to Energy Conversions systems and transition services for procurement							1-4Q
Conduct field evaluation of the Containerized Deployment Kitchen (CDK)	4Q						
Optimize and transition CDK to AF for procurement		4Q					
Complete Milestone C on Multi Temp Refrigerated Container System (MTRCS)			1Q				
Design Containerized Kitchen (CK) PQT prototype		3Q					
Fabricate and test CK PQT items			4Q				
Fabricate CK PVT items				4Q			
Fabricate test cogeneration for MKT PVT item				4Q			
Design skillet and oven improvements for MKT			4Q				
Conduct DT and OT for MKT skillet and oven				4Q			
Conduct Milestone C for MTRCS			1Q				
Evaulate water chiller system		4Q					

	ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit) February 2006											
	T ACTIVITY stem Development and Demonstration		PE NUMBER A 0604713A •		Feeding, Cl	lothing, an	d Equipme	ent	ргојест 667			
	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		
667	LAND WARRIOR	76114	. 0	0	0	0	0	0	0	208246		

A. Mission Description and Budget Item Justification: Beginning in Fiscal Year 2006 (FY06) this funding will be under PE 0603817A, Project S57. This project supported the Land Warrior (LW) concept, a first generation, modular, integrated fighting system focused on the needs of the individual infantry Soldier and Soldiers in support of the close fight. To comply with Congressional intent and to leverage from the success of current developed Land Warrior (LW) components, the Army refocused the LW program to spiral out Dismounted Battle Command System (DBCS) capabilities (e.g. Commander's Digital Assistant (CDA), Enhanced Position Location and Reporting System (EPLRS) MicroLight Radio) to Soldiers in the field for near-term capability. Because of demonstrated improved reliability, LW integrated ensemble systems, to include applicable long-lead items, are being produced for a Stryker Battalion for evaluation purposes in FY06.

The LW program and FFW Advanced Technology Demonstration (ATD) have made progress in consolidating in accordance with the FY05 Appropriations Language and a report has been submitted to Congress. The Ground Soldier System (GSS) will leverage the technological advancements transitioned from the Science and Technology (S&T) community including Future Force Warrior (FFW) to develop the Ground Soldier capability.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY05: Funding supported the Army Strategic Software Improvement Program; purchased Ground Based Global Positioning System (GPS) Receiver Application Module Selective Availability Anti-Spoofing Module (SAASM) and other Government Furnished Equipment (GFE) items to support DBCS capabilities.	1273	0	0
FY05: Continued development engineering for one company's worth of prototype devices for DBCS capabilities. Continued development work on the LW integrated ensemble systems for evaluation by a Stryker Battalion.	60312	0	0
FY05: In fourth quarter, started developmental test activities for the Dismounted Battle Command System (DBCS) capabilities and for the LW integrated ensemble systems.	1121	0	0
FY05: Continued Program management and systems engineering support for overall program efforts. Continued minimal operations support of PM Land Warrior - Fort Monmouth, and maintained appropriate activity at PM Land Warrior - Fort Bragg. Continued program reviews for In Process Review (IPR) to support the preparation for Milestone C, and report out on required ACAT I documentation requirements. Continued to support NATO Land Group 3 and other partnered countries to ensure compatibility with potential multinational military operations.	13408	0	0
Total	76114	0	0

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
RDTE, 0604827, S57 Land Warrior	0	50218	27080	29934	29927	41877	46842	CONT	CONT
OPA 3, M80500, Land Warrior	10635	35700	21198	40966	70884	28680	3087	CONT	CONT

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ARMY RDT&E BUDGET	TITEM.	JUSTIF	ICATIO	N (R2a]	Exhibit)			February 2	2006
BUDGET ACTIVITY 5 - System Development and Demonstration	on		ER AND TITL BA - Comba		Clothing, a	ınd Equipn	nent	PR(66	DJECT 7
OPA 4, MS3610, Land Warrior Initial Spares	710	492	1574	1622	1613	629	632	0	7272
RDTE, 0603001, DJ50, Future Warrior Technology Insertion	49121	56034	37714	40356	39998	35609	37376	CONT	CONT

C. Acquisition Strategy Beginning in Fiscal Year 2006 (FY06) this funding will be under PE 0603817A, Project S57. To comply with Congressional intent and to leverage from the success of current developed Land Warrior (LW) components, the Army refocused the LW program to spiral out Dismounted Battle Command System (DBCS) capabilities (e.g. Commander's Digital Assistant (CDA), Enhanced Position Location and Reporting System (EPLRS) MicroLight Radio) to Soldiers in the field for near-term capability. Because of demonstrated improved reliability, LW integrated ensemble systems, to include applicable long-lead items, will be produced for a Stryker Battalion for evaluation purposes in FY06. After this evaluation, the Army will compare DBCS and LW integrated ensemble capability to determine the best capability within resources to field to the Soldier.

The LW program and FFW Advanced Technology Demonstration (ATD) have made progress in consolidating in accordance with the FY05 Appropriations Language and a report has been submitted to Congress. The Ground Soldier System (GSS) will leverage the technological advancements transitioned from the Science and Technology (S&T) community including Future Force Warrior (FFW) to develop the Ground Soldier capability.

February 2006 **ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit) BUDGET ACTIVITY** PE NUMBER AND TITLE **PROJECT** 5 - System Development and Demonstration 0604713A - Combat Feeding, Clothing, and Equipment 668 FY 2005 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011 **Total Cost** FY 2006 Cost to COST (In Thousands) Estimate Estimate Estimate Estimate Estimate Estimate Estimate Complete 668 SOLDIER ENHANCE PGM 15168 0 0 0 34789

A. Mission Description and Budget Item Justification: This project supports accelerated integration, modernization, and enhancement efforts of lighter, more lethal weapons, and improved Soldier items including lighter, more comfortable load-bearing equipment, field gear, survivability items, communications equipment, and navigational aids. Soldiers are managed in three categories: dismounted Soldiers, combat crews (air and ground), and other Soldiers. Projects are generally completed in three years or less.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY05: Continued in house engineering support services, conduct technical evaluation and program reviews.	2446	0	0
FY05: Continued evaluation/procure prototypes and/or test for several efforts such as Close Combat Mission Capability Kit, XM102 Reloadable Stun Grenade, Semi-automatic sniper system, Electronic Stun Baton, Blast Protective Footware, POL Handler Glove, Compact Metal Detector, Enhanced Fuel Bar, Modular Glove System, Close Quarters Battle Kit and Rapid Wall Breaching Kit.	3220	0	0
FY05: Initiated evaluation for such items as: Water Purification Pen, Integrated Laser White Pointer (ILWLP), Small Tactical Optical Ranging Module (STORM) micro-Laser Range Finder (MLRF) sytem.	2689	0	0
FY05: Initiated market surveys and/or evaluations on new items to commence development and demonstration. New items started will continue evaluation/procure prototypes.	6813	0	0
Total	15168	0	0

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA3, MA6800, Soldier Enhancement	7241	4810	9165	10529	3410	7347	5451	CONT	CONT
OPA2, BA5300, Soldier Enhancement	6588	8153	14590	13909	9587	9516	7670	CONT	CONT
WTCV, GC0076, Small Arms (SEP)	23769	5181	2782	5459	1269	5229	4249	CONT	CONT
WTCV, GZ1290, Squad Automatic Wpn (Mods)	19685	3095	5314	9421	4181	5141	3190	CONT	CONT
WTCV, GZ2800, M16 Rifle Mods	20476	1970	1024	3925	1026	3599	3602	CONT	CONT
WTCV, GB3007, M4 Carbine Mods	87914	44817	17064	13905	6332	13733	9799	0	193564
WTCV, G01500, Sniper Rifle	13452	9656	8431	195	0	0	0	0	31734
WTCV, GC0925, Mods	8315	5146	1720	2809	501	3098	2139	CONT	CONT
PAA, F47500, 7.62mm AP	6508	4833	5154	8424	8736	5900	0	0	39555
PAA, F47600, 5.56mm AP	4567	6819	7230	11703	12071	8175	0	0	50565
PAA, F00900, 40mm Canister	0	0	0	0	0	0	0	0	0

0604713A (668) SOLDIER ENHANCE PGM Item No. 96 Page 13 of 18

Exhibit R-2A Budget Item Justification

ARMY RDT&E BUDGE	r item j	USTIFIC	CATION	(R2a Ex	khibit)		Fe	bruary 200	6
BUDGET ACTIVITY 5 - System Development and Demonstrati	on	PE NUMBER 0604713A		Feeding, Cl	othing, and l	Equipment		PROJEC 668	СТ
OMA, 121017, Central Funding & Fielding	141770	136115	161051	159302	115700	0	0	CONT	CONT

C. Acquisition Strategy The Soldier Enhancement Program (SEP) focuses on developmental initiatives and integration efforts that lend themselves to accelerated acquisition and fielding in the near term (within three years). New SEP candidates are reviewed and approved annually. SEP items are procured from multiple appropriations, i.e., OMA, OPA, WTCV, and PAA.

•	ARMY RDT&E BUDGET IT	TEM JU	STIFIC	ATION	(R2a Ex	khibit)]	February 2	2006
	ET ACTIVITY stem Development and Demonstration		PE NUMBER 2 0604713A		Feeding, Cl	othing, an	d Equipme	ent	PRO 680	JECT)
	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
680	MOUNTED WARRIOR	9022	0	0	0	0	0	0	0	9022

A. Mission Description and Budget Item Justification: Mounted Warrior Soldier System (MWSS) provides combat crewmembers and vehicle commanders in the Current and Future force with increased mission effectiveness on the network centric battlefield in the areas of lethality, command and control, communications, survivability, mobility, and sustainability. MWSS will provide the dismounted and mounted combat crewmembers increased capabilities to conduct offensive and defensive operations by providing uninterrupted viewing of their immediate surroundings while remaining connected to on-board platform C4I capabilities, thereby providing crews with continuous situational awareness and communications with platform and dismounted Soldiers. MWSS Helmet Mounted Display extends fire control information to vehicle crewmembers while they are standing up in or viewing out of the hatch allowing them to maintain immediate situational awareness of the their direct battle space, while simultaneously controlling inter-netted fires, vehicle, or dismounted Soldiers. MWSS will provide remote digital connectivity to the Force XXI Battle Command Brigade and Below (FBCB2) information system via the vehicle's C4I capabilities.

Beginning in FY06 this funding will be under PE 0603827A, Project S56.

Accomplishments/Planned Program	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY05: Initiated fabrication and delivery of 165 field hardened operational Microvision Nomad Helmet Mounted Displays (HMD) to the Stryker Brigade Combat Team (SBCT) 2 for associated testing and evaluation. Funds also provide program and logistics support to SBCT 2 for support of the Nomad HMDs.	2685	0	0
FY05: Continued Program management and engineering development of the Mounted Warrior Soldier System (MWSS) in support of Doctrine, Organization, Training, Materiel, Leadership, and Education, Personnel and Facilities (DOTMLPF) assessment for the Stryker Battalion. Funds also provide for a User Evaluation of the communications headset and HMD with SBCT 1.	6337	0	0
Total	9022	0	0

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
RDTE, 0604827A, S56, Mounted Warrior	0	7600	0	0	0	0	0	CONT	CONT
OPA3, M80600, Mounted Warrior	0	1600	0	0	0	0	0	CONT	CONT

<u>C. Acquisition Strategy</u> The Army has moved funds from PE 0604713A-680 effective FY06. The MWSS program provides the spiral fielding of mature technologies and advanced capabilities to meet the needs of the Combat Vehicle Crewman (CVC). The first spiral will equip a Stryker battalion with mature/existing technologies to be used to

ARMY RDT&E BUDGET ITEN	M JUSTIFICATION (R2a Exhibit)	February 2006
SUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604713A - Combat Feeding, Clothing, and Equipment	PROJECT 680
evelop tactics, techniques and procedures (TTPs), which will be Congressional interest item.	e used to define the requirements for future spirals. Part of the funding in FY05 was	as as a result of being a

System Development and Demonstration FY 2005	- System Development and Demonstration O604713A - Combat Feeding, Clothing, and Equipment C40 FY 2005 COST (In Thousands) FY 2005 Estimate FY 2006 Estimate FY 2007 FY 2008 FY 2008 FY 2009 FY 2010 FY 2011 Cost to Complete Total Co	FY 2005 Estimate 549	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	
COST (In Thousands) FY 2005 Estimate E	COST (In Thousands) FY 2005 Estimate SOLDIER SUPPORT EQUIPMENT - ED SOLDIER SUPPORT and Budget Item Justification: Not applicable for this item.	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
COST (In Thousands) Estimate Estimate Estimate Estimate Estimate Estimate Complete SOLDIER SUPPORT EQUIPMENT - ED 549 0 0 0 0 0 0 0 0 0 0 143 Mission Description and Budget Item Justification: Not applicable for this item.	COST (In Thousands) Estimate Estimate Estimate Estimate Estimate Estimate Complete O SOLDIER SUPPORT EQUIPMENT - ED 549 O 0 0 0 0 0 0 0 14: Mission Description and Budget Item Justification: Not applicable for this item.	Estimate 549	Estimate 0	Estimate 0	Estimate	Estimate	Estimate	Estimate	Complete	
Mission Description and Budget Item Justification: Not applicable for this item.	Mission Description and Budget Item Justification: Not applicable for this item.	1	<u> </u>	L	0	0	0	0	0	1431
		on: Not applicable	e for this item							

ARMY RDT&E BUDGET IT	TEM JU	STIFIC	ATION	(R2a Ex	khibit)			February 2	2006
SUDGET ACTIVITY		PE NUMBER A	AND TITLE						JECT
- System Development and Demonstration		0604713A ·	· Combat I	Feeding, C	lothing, an	d Equipme	ent	L40	0
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
40 CLOTHING & EQUIPMENT	5114	0	0	0	0	0	0	0	1246