

UNCLASSIFIED

<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)</b>	DATE <b>February 1999</b>
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<b>BUDGET ACTIVITY</b> <b>4 - Demonstration and Validation</b>	<b>PE NUMBER AND TITLE</b> <b>0603747A Soldier Support and Survivability</b>
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COST ( <i>In Thousands</i> )	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	6196	7522	12804	13642	17538	20572	22651	22583	Continuing	Continuing
DC09 Soldier Support Equipment	1831	1598	5606	6745	8949	11960	13164	13341	Continuing	Continuing
D610 Food Advanced Development	2120	2560	3110	3387	3745	3722	3930	3956	Continuing	Continuing
D669 Clothing and Equipment	2245	3364	4088	3510	4844	4890	5557	5286	Continuing	Continuing

**A. Mission Description and Budget Item Justification:** Provide advanced development for unit/organizational equipment, improved individual clothing and equipment, airdrop equipment, rigid wall and fabric shelters, food and field service equipment which will enhance soldier battlefield effectiveness, survivability, sustainment and quality of life. Program element supports advanced development of a new generation of field service support items and shelters, including collective protection and shelter heaters for unit/organizational use to enhance the quality of life of field soldiers and the ability to project forces to Spartan environments. Program Element also supports advanced development of individual clothing and equipment items to lighten the soldier's load and incorporate protection against chemical and biological agents, thermal nuclear flash, ballistic threats, visual and electronic detection and environmental hazards. Program Element also supports advanced development of food, packaging, and food service equipment systems to reduce food service logistics for all four services, lighten the warfighter's load, increase fuel efficiency and to improve or replace existing systems. PE also supports the development of Air Delivery Equipment (personal and cargo) to improve Army force projection capabilities, increase warfighter safety and support national security objectives.

<b>B. Program Change Summary</b>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Previous President's Budget (FY 1999 PB)	7324	7581	9140	9348
Appropriated Value	7557	7581		
Adjustments to Appropriated Value				
a. Congressional General Reductions	-233	-59		
b. SBIR / STTR	-178			
c. Omnibus or Other Above Threshold Reductions	-59			
d. Below Threshold Reprogramming	-891			
e. Rescissions				
Adjustments to Budget Years Since FY 1999 PB			+3664	+4294
Current Budget Submit (FY 2000 / 2001 PB)	6196	7522	12804	13642

Change Summary Explanation: FY 2000 (+3664) and FY 2001 (+4294) increases are due to the Army consolidating project elements and projects: 064804/D279, 064804/D249 and 064713/DC40 to form the Soldier Support Equipment Project (DC09) in this program element.

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<b>BUDGET ACTIVITY</b> <b>4 - Demonstration and Validation</b>				<b>PE NUMBER AND TITLE</b> <b>0603747A Soldier Support and Survivability</b>					<b>PROJECT</b> <b>DC09</b>	
<i>COST (In Thousands)</i>	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
DC09 Soldier Support Equipment	1831	1598	5606	6745	8949	11960	13164	13341	Continuing	Continuing
<p><b>A. <u>Mission Description and Justification:</u></b> Develop and field soft shelters, showers, latrines, heaters, mortuary affairs, organizational equipment and other combat service support equipment to improve unit sustainability and combat effectiveness. Conduct demonstration and validation of aerial delivery systems for equipment and personnel, with emphasis on reduced incidence of injuries, improved safety and accuracy, and increased survivability of aircraft, equipment, and personnel. Develop a family of tactical rigid wall shelters which enhances soldier survivability and sustainability of command, control, communications and intelligence. Shelters provide highly mobile, joint service platforms for the digitization of the battlefield, housing many critical vehicle-mounted battlefield systems, medical critical care in a Chemical/Biological (C/B) environment and high tech maintenance.</p> <p><b>FY 1998 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>• 396 Conducted additional developmental testing for Laundry Advanced System (LADS). Developed additional performance capabilities for new requirements added to development contract for LADS.</li> <li>• 138 Conducted shelter/heater habitability study to validate applications for the distribution of the Space Heater Arctic and Space Heater Small.</li> <li>• 260 Conducted market survey of alternative Initial Deployment Latrine candidates. Conducted limited Technical Testing of prototypes of the Maturing Theater Latrine (MTL). Developed Statement of Work for MTL production contract.</li> <li>• 122 Conducted Verification Testing of Ammo Solar Cover.</li> <li>• 256 Completed market investigation and draft performance specifications for Aviation Maintenance Shelter (AMS).</li> <li>• 659 Completed First Article Inspection/Production Verification Testing (PVT) for Lightweight Maintenance Enclosure (LME). Completed conditional Milestone (MS)III decision and transition to procurement.</li> </ul> <p>Total 1831</p> <p><b>FY 1999 Planned Program:</b></p> <ul style="list-style-type: none"> <li>• 241 Prepare production contract solicitation, conduct test and evaluation of the Maturing Theater Latrines (MTL) candidates, downselect and award contract. Type Classify MTL. Type Classify Follow-On Latrine (FOL) based on Force Provider Containerized Latrine.</li> <li>• 892 Complete Milestone I/II for Aviation Maintenance Shelter (AMS)/P3I program: Procure AMS flooring system. Award R&amp;D contract for Rapid Inflation System, and fabricate test prototypes.</li> <li>• 288 Modular Deck System (MDS) program: Complete market investigation, procure commercial deck system for testing/user evaluation.</li> <li>• 135 Conduct Market Investigation for candidate Advanced Mortuary Affairs Kit equipment.</li> <li>• 42 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs</li> </ul> <p>Total 1598</p>										
Project DC09			Page 2 of 13 Pages				Exhibit R-2A (PE 0603747A)			

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BUDGET ACTIVITY <b>4 - Demonstration and Validation</b>	PE NUMBER AND TITLE <b>0603747A Soldier Support and Survivability</b>	PROJECT <b>DC09</b>
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**FY 2000 Planned Program:**

- 400 Procure prototypes and conduct technical testing of Mortuary Affairs Remains Kit (MARK).
  - 1037 Conduct testing of Rapid Inflation System and flooring prototypes for Aviation Maintenance Shelter (AMS). Procure AMS (airbeam) prototype for testing.
  - 400 Conduct testing/user evaluation of Modular Deck System test items and award production contract.
  - 633 Initiate Operational Testing for Ejection Parachute Jettison Device.
  - 2092 Complete Developmental Testing for Advanced Tactical Parachute System.
  - 100 Begin concept exploration and conduct market investigation for Enhanced Containerized Delivery System.
  - 944 Complete production verification testing for 2.5 Ton truck/LMTV (Type III) and 5 Ton Truck/MTV (Type IV) Cargo Bed Cover variants, build LRIP items, and initiate field evaluation.
- Total            5606

**FY 2001 Planned Program:**

- 1630 Conduct Testing of Aviation Maintenance Shelter P3I (Airbeam). Procure 2<sup>nd</sup> AMS (Airbeam) prototype.
  - 704 Conduct User Evaluation of Mortuary Affairs Remains Kit
  - 125 Conduct and complete Operational Tests of Enhanced Parachute Jettison Device
  - 1500 Conduct Army Developmental Test and Operational Test of C-17 Dual Row Airdrop Capability
  - 609 Develop Enhanced Container Delivery System Prototypes
  - 2177 Complete field evaluation and complete Milestone III for 2.5 Ton Truck/LMTV (Type III) and 5 Ton Truck/MTV (Type IV) CBC variants and transition into full production. Award LRIP contract for CBC High Mobility Trailer Variants.
- Total            6745

<b>B. Other Program Funding Summary</b>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To <u>Compl</u>	Total <u>Cost</u>
RDTE, 0604713.DC40, Unit/Organizational Equipment	1683	1705	4516	5872	9238	12601	14152	14558	Cont	Cont
M82701, Laundry Advance System		7206	7914	12671	13350	9101	9745	22565	Cont	Cont
M82702, 12 Head Shower				587		586	584	589		
M82703, Containerized Self-Service Laundry			980							
M82704, Containerized Shower			950	1245	1270	1171				
M82705, Maturing Theater Latrine				441						
M82706, Follow-On Latrine				880	914	671				
MA7801, Advanced Tactical Parachute System					24368	28189				
MA7802, Extraction Parachute Jettison Device			2391							

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BUDGET ACTIVITY <b>4 - Demonstration and Validation</b>	PE NUMBER AND TITLE <b>0603747A Soldier Support and Survivability</b>	PROJECT <b>DC09</b>
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<b>B. Other Program Funding Summary</b>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To Compl	Total Cost
MA7805, Universal Static Line			980							
MA8050, Items Less Than \$5.0M (CSS-EQ)	4242	4956	2553	2261	9401	10286	21814	33836		
MA8061, Lightweight Maintenance Enclosure			2128	2013	2931	6379				

**C. Acquisition Strategy:** Accelerated product developments and testing which transition to Engineering and Manufacturing Development and/or Production.

<b>D. Schedule Profile</b>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>
AMS market investigation	3Q*						
Complete LRIP testing of LME	3Q*						
Type Classify FOFL (FOL)		4Q					
Complete FOSH Habitability Study	2Q*						
Conduct test and Evaluation on MTL prototypes		3Q					
Award AMS Flooring System Contract		3Q					
Award Rapid Inflation System Contract for AMS P3I		1Q*					
Conduct MDS Market Investigation, build prototypes		2Q					
Type Classify FOFL (MTL)		4Q					
Test MARK component prototypes			4Q				
Complete MDS user evaluation			1Q				
Initiate EPJD Operational Testing			1Q				
Conduct market survey for ECDS			2Q				
Complete DT for ATPS			4Q				
Complete PVT for Type III and IV CBC variant			3Q				
Conduct Test of Aviation Maintenance Shelter Airbeam Prototype				3Q			
Complete OT of EPJD				3Q			
Conduct DT/OT of C-17 Dual Row				3Q			
Complete field evaluation and Milestone III for Type III and Type IV CBC variants				1Q			
Award LRIP contract for CBC High Mobility Trailer Variant				2Q			

\*Denotes a completed milestone  
Project DC09

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**ARMY RDT&E COST ANALYSIS (R-3)**

DATE **February 1999**

**BUDGET ACTIVITY**  
**4 - Demonstration and Validation**

**PE NUMBER AND TITLE**  
**0603747A Soldier Support and Survivability**

**PROJECT**  
**DC09**

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. SSCOM	In-House	NRDEC	12501	571		373		651		Cont.	14096	Cont.
b. Contracts	Various	Various	7358	720	Various	870	Various	1519	Various	Cont.	10467	Cont.
Subtotal Product Development:			19859	1291		1243		2170			24563	

II. Support Costs: There are no efforts associated with the delivery of any of a fully integrated system that are in direct support of this project and essential to the development, training, operation, and maintenance of systems in this project.

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. TECOM/OEC	MIPR	Various	2509	241	Various	4123	Various	4300	Various	Cont.	11173	Cont.
Subtotal Test and Evaluation:			2509	241		4123		4300			11173	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Various	In-House	PM-Soldier Support,	1555	66		240		275		Cont.	2136	Cont.
b. Various	In-House	SSCOM	192								192	
Subtotal Management Services:			1747	66		240		275			2328	

Project Total Cost:			24115	1598		5606		6745			38064	
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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)								DATE February 1999		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603747A Soldier Support and Survivability					PROJECT D610	
COST (In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
D610 Food Advanced Development	2120	2560	3110	3387	3745	3722	3930	3956	Continuing	Continuing
<p><b>A. Mission Description and Justification:</b> The project funds the development of Joint Service Food/Food Service Equipment to improve individual combat effectiveness and reduce logistics burden and operation &amp; support (O&amp;S) costs of subsistence support for service personnel. Enhance rations by increasing quality, acceptability and variety. Develop multi-fuel, rapidly deployable field food service equipment to support combat, humanitarian missions and operations-other-than-war. Improve equipment to enhance safety in food service, utilize battlefield fuel and decrease fuel and water requirements. Program is reviewed and validated twice annually by the Department of Defense (DoD) Food and Nutrition Research and Engineering Board as part of the Joint Service Food Program. Additionally, the project will, conduct advanced development of improved subsistence and subsistence support items to enhance soldier effectiveness and quality of life in all four Services as part of an integrated DoD Food Research, Development, Test, Evaluation and Engineering (RDTE&amp;E) program.</p> <p><b>FY 1998 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>• 320 Fabricated and evaluated the New Enhanced Field Rations prototypes to assess different technical applications.</li> <li>• 405 Completed design, initiated fabrication, and conducted component testing of Marine Corps Rapid Deployment Kitchen.</li> <li>• 240 Completed test and evaluation of future shipboard galley concept incorporating new food service equipment technologies.</li> <li>• 370 Identified and conducted user testing of improvements for individual and group ration systems to improve acceptability and enhance combat effectiveness. Transitioned selected heat and serve ration components and Meals Ready to Eat (MRE) improvements increasing menu variety. Updated B-ration menu for Marine Corps.</li> <li>• 335 Field tested MERC to quantify warfighter acceptability / mobility enhancement.</li> <li>• 230 Field tested nutrient optimized MRE ration prototypes to minimize weight/cube/cost and conducted user field test to determine effect on level of acceptance and consumption. Transitioned two performance enhancing ration components to procurement.</li> <li>• 110 Procured and conducted evaluation of steam generator and thermal powered washer to upgrade Field Sanitation Center Systems.</li> <li>• 110 Evaluated polymeric tray compatibility with USMC Tray Ration Heating System, tested field sink, and developed roof vent configuration for fielded MKTs.</li> </ul> <p>Total 2120</p> <p><b>FY 1999 Planned Program:</b></p> <ul style="list-style-type: none"> <li>• 205 Prepare design concept and procure long lead items for Air Force all electric field kitchen system to meet specific deployment requirements of the Air Expeditionary Force.</li> <li>• 392 Evaluate emerging food service equipment technologies and processes for direct shipboard application to reduce life cycle costs.</li> <li>• 120 Develop, fabricate, and evaluate improvements to field feeding systems as required by the services and incorporate changes to support ongoing and future procurements.</li> </ul>										
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BUDGET ACTIVITY <b>4 - Demonstration and Validation</b>		<b>February 1999</b>
PE NUMBER AND TITLE <b>0603747A Soldier Support and Survivability</b>		PROJECT <b>D610</b>
<b>FY 1999 Planned Program: (continued)</b>		
•	222	Complete storage studies/demonstrations of glass coated polymeric tray with easy open lid to refine concepts, ensure high acceptability and optimize functionality and affordability.
•	608	Continue to identify and conduct user testing of improvements for individual and group ration systems. Transition selected heat and serve ration components and MRE improvements, increasing menu variety and acceptance. Develop prototype lightweight minimal "B" ration system to meet specific Air Force requirements.
•	296	Complete field tests in different environments to establish effectiveness of selected performance enhancing ration components (PERCs) and supplements, demonstrate overall producibility and suitability of PERCs-based rations and transition to procurement.
•	267	Complete Phase II of MRE ration redesign for nutritional optimization and logistical parameters and conduct follow-up field testing to demonstrate improved acceptance/consumption and reduced logistic burden.
•	416	Develop a baseline on which to design future "on demand" feeding systems to reduce logistical burden.
•	34	Small Business Innovative Research/Small Business Technology Transfer Programs.
Total	2560	
<b>FY 2000 Planned Program:</b>		
•	345	Integrate design for centralized thermal heating process and nonelectric refrigeration into Containerized Kitchen.
•	209	Develop, fabricate, and evaluate improvements to field feeding systems as required by the services and incorporate changes to support ongoing and future procurements.
•	397	Develop shipboard applications for state-of-the-art food service equipment technologies and pre-prepared foods.
•	271	Design and fabricate a HMMWV trailer based kitchen to increase mobility and deployability of company level kitchens.
•	226	Design and fabricate a Marine Corps expeditionary field feeding delivery system.
•	369	Conduct design review and initiate a fabrication of Air Force all electric field kitchen system.
•	135	Complete design and field testing of lightweight minimal "B" ration for the Air Force.
•	454	Continue advanced development of ration components and conduct user testing of improvements for individual and group ration systems. Transition selected heat and serve ration components and MRE items.
•	283	Complete MRE redesign effort and transition to fielded individual ration improvement program.
•	421	Develop ration delivery prototype which incorporates on demand feeding concepts.
Total	3110	
<b>FY 2001 Planned Program:</b>		
•	381	Complete fabrication and initiate technical testing of Containerized Kitchen with centralized thermal heating process and nonelectric refrigeration.
•	275	Develop, fabricate and evaluate improvements to field feeding systems as required by the services and incorporate changes to support ongoing and future procurements
•	341	Complete fabrication and conduct DT/OT of Marine Corps expeditionary field feeding delivery system
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**FY 2001 Planned Program: (continued)**

- 411 Continue assessment of new food and food service equipment technologies and complete shipboard evaluations.
- 418 Complete fabrication and conduct DT/OT of Air Force all electric field kitchen system.
- 284 Develop a Marine Corps 8x8x10 refrigerated ISO container to improve efficiency and reduce weight to cube ratio and maintenance requirements.
- 866 Continue improvement of individual and group rations and conduct field test of transitioning technologies to include irradiated foods, high frequency processed items, and innovative packaging systems.
- 411 Conduct field demonstration of the efficiency of an alternative ration delivery prototype

Total 3387

<b>B. Other Program Funding Summary:</b>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To Compl	Total Cost
RDTE, 0604713.D548, Military Subsistence System	829	1290	1625	1753	1867	1880	2006	2012	Cont	Cont
OPA3, M65803, Kitchen, Containerized, Field		7425	7062	7087	5663	6581	8358	8649	Cont	Cont
OPA 3, M65802, Sanitation Center, Field Feeding			661	1843	1817	6481	5895	5838	Cont	Cont
M65801, Refrigeration Equipment		1914	931	924	931	2384	2533	2551		

**C. Acquisition Strategy:** Developments transition to Engineering and Manufacturing Development and procurement.

<b>D. Schedule Profile</b>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
Field tested Mobility Enhancing Ration Components (MERC)	2Q*							
Conducted user testing of improvements for individual and group ration systems	2Q*							
Conducted component testing of Marine Corps Rapid Deployment Kitchen	2Q*							
Evaluated polymeric tray compatibility with USMC Tray Ration Heating System	3Q*							
Completed evaluation of NEFR prototypes	4Q*							
Transition selected heat and serve ration components and MRE improvements.		3Q						
Complete field tests of selected performance enhancing ration components (PERCs).		3Q						

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<b>BUDGET ACTIVITY</b> <b>4 - Demonstration and Validation</b>	<b>PE NUMBER AND TITLE</b> <b>0603747A Soldier Support and Survivability</b>	<b>PROJECT</b> <b>D610</b>
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<b>D. Schedule Profile</b>	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Complete storage studies/demonstrations of glass coated polymeric tray		3Q						
Complete MRE ration redesign for nutritional optimization and logistical parameters.		3Q						
Integrate design for heating process and NEFR into CK			1Q					
Develop shipboard applications for state-of-the-art food service equipment.			3Q					
Design and fabricate a HMMWV trailer based kitchen.			3Q					
Design and fabricate a Marine Corps expeditionary field feeding delivery system.			3Q					
Complete design and field testing of lightweight minimal "B" ration.			3Q					
Conduct DT/OT of Marine Corps expeditionary field feeding delivery system				3Q				
Conduct DT/OT of Air Force all electric field kitchen system				3Q				

\*Denotes a completed milestone

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<b>BUDGET ACTIVITY</b> <b>4 - Demonstration and Validation</b>	<b>PE NUMBER AND TITLE</b> <b>0603747A Soldier Support and Survivability</b>	<b>PROJECT</b> <b>D610</b>
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. SSCOM	In-House		13366	1516		1449		1567		Cont.	17898	Cont.
b. Contracts	Various		3662	466	Various	980	Various	1084	Various	Cont.	6192	Cont.
Subtotal Product Development:			17028	1982		2429		2651			24090	

II. Support Costs: There are no efforts associated with the delivery of any of a fully integrated system that are in direct support of this project and essential to the development, training, operation, and maintenance of systems in this project.

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. TECOM/OEC	MIPR	Various	1246	450		526		569		Cont.	2791	Cont.
Subtotal Test and Evaluation:			1246	450		526		569			2791	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Project Ofc Management	In-House	SSCOM	987	128		155		167		Cont.	1437	Cont.
Subtotal Management Services:			987	128		155		167			1437	

Project Total Cost:			19261	2560		3110		3387			28318	
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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603747A Soldier Support and Survivability					PROJECT D669	
COST (In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
D669 Clothing and Equipment	2245	3364	4088	3510	4844	4890	5557	5286	Continuing	Continuing
<p><b>A. Mission Description and Justification</b> Use 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.</p> <p><b>FY 1998 Accomplishments:</b></p> <ul style="list-style-type: none"> <li>• 603 Conducted early user evaluation, freeze design, fabricate test prototypes, and initiated DT/OT of the Advanced Bomb Suit and Cold Weather Canteen.</li> <li>• 267 Developed initial design concepts with ballistic protective characteristics, conducted technical and early evaluations and downselected design/materials for test for test prototypes for Military Eye Protection System (MEPS), formerly Advance Laser Protection System(ALPS).</li> <li>• 435 Revised initial design concepts. Completed Market Survey. .</li> <li>• 245 Conducted early user evaluation of materials and designs for a Combat Clothing Pre-Planned Product Improvement (Permethrin Treated Battledress Uniform..</li> <li>• 609 Released performance specification and Statement of Work for Military Eye Protection System and conducted lab evaluation/fit analysis of frame design.</li> <li>• 86 Conducted final chemical test on the Improved Toxicological Agent Protective (ITAP) Ensemble</li> </ul> <p>Total 2245</p> <p><b>FY 1999 Planned Program:</b></p> <ul style="list-style-type: none"> <li>• 250 Obtain MS I/II approval and award contract for test Items for the Advanced Bomb Suit..</li> <li>• 2383 Award contract(s) for the Military Eye Protection System, integrate laser protective capabilities into configuration, and begin conduct user testing for MEPS.</li> <li>• 203 Complete evaluations and approval of Concealable Body Armor for transitions.</li> <li>• 260 Initiate MSI/II for Modular Glove, Interim Combat Boot.</li> <li>• 209 Initiate market surveys, operational requirements documentation for programs identified for transition from Advance Technology Concept /Advance Technology Concept Demonstration.</li> <li>• 59 Small Business Innovative Research/Small Business Technology Transfer Programs.</li> </ul> <p>Total 3364</p>										
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**FY 2000 Planned Program:**

- 1487 Continue evaluation and obtain MSI/II for Advanced Bomb Suit, Modular Glove Program, Microclimate Cooling System, Environmental Protective Clothing, Modular Sleep System, Enhanced Combat Boot Program
  - 495 Initiate development of Advanced Integrated Fire Fighters Ensemble to provide for fire fighters.
  - 1859 Further improve the MEPS to take advantage of improvements in state-of-the-art Laser technologies.
  - 247 Initiate market surveys, operational requirements documentation for programs identified for transition from Advance Technology Concept /Advance Technology Concept Demonstration.
- Total 4088

**FY 2001 Planned Program:**

- 400 Obtain test units, test and obtain MS III approval and transition Lightweight Microclimate Cooling system.
  - 1027 Complete testing, Obtain MS III and TC MEPS to production.
  - 800 Initiate development of an Advanced Countermine/EOD system; Advanced Protective Footwear.
  - 754 Initiate Market Survey, evaluations for new items proposed for FY2001
  - 529 Initiate market surveys, operational requirements documentation for programs identified for transition from Advance Technology Concept /Advance Technology Concept Demonstration.
- Total 3510

<b>B. Other Program Funding Summary:</b>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	To Compl	Total Cost
RDTE, 0604713.DL40, Clothing & Equipment	3955	4320	3517	4287	4572	4597	5183	5187	Cont	Cont
OMA, 114092000, Central Funding & Fielding	51500	48130	94738	85780	94127	77456	77456	77456	Cont	Cont

**C. Acquisition Strategy:** Developments transition to engineering and manufacturing development (EMD) followed by initial fielding and sustainment.

<b>D. Schedule Profile</b>	<u>FY1998</u>	<u>FY1999</u>	<u>FY 2000</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>
Request for Program FY99-05	3Q*	2Q	2Q	2Q	2Q	2Q	2&4Q	2Q
Life Cycle Systems Review	4Q*	2&4Q	2&4Q	2&4Q	2&4Q	2&4Q	2&4Q	2&4Q

\*Denotes a completed milestone

**UNCLASSIFIED**

<b>ARMY RDT&amp;E COST ANALYSIS (R-3)</b>	DATE <b>February 1999</b>
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<b>BUDGET ACTIVITY</b> <b>4 - Demonstration and Validation</b>	<b>PE NUMBER AND TITLE</b> <b>0603747A Soldier Support and Survivability</b>	<b>PROJECT</b> <b>D669</b>
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Various	In-House	SSCOM NRDEC	846	1864	TBD	1947	TBD	994	TBD		5651	
b. Various	Various	Various Contractors	1068	1000	TBD	1300	TBD	1500	TBD		4868	
Subtotal Product Development:			1914	2864		3247		2494			10519	

Remark:

II. Support Costs: Support costs vary annually depending on the types of items we are evaluating. RDEC's support to evaluate items also varies annually depending on number and types of items.

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Various	In-House	TECOM	86	165		591		485			1327	
Subtotal Test and Evaluation:			86	165		591		485			1327	

Remark: Testing costs vary annually by item.

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 1999 Cost	FY 1999 Award Date	FY 2000 Cost	FY 2000 Award Date	FY 2001 Cost	FY 2001 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a. Program Management	In-House	PM Soldier	245	335		250		531			1361	
Subtotal Management Services:			245	335		250		531			1361	

Remark: Costs vary annually depending on number and type of items being evaluated.

Project Total Cost:			2245	3364		4088		3510			13207	
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