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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE February 1999		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development						
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	6570	18845	6514	6265	6455	6678	9139	9227	Continuing	Continuing
DG10 Advanced Tactical Power Sources - Advanced Development	131	178	199	218	471	470	540	540	Continuing	Continuing
DG11 Advanced Electrical Energy Concepts Advanced Development	202	1366	995	730	610	1048	649	650	Continuing	Continuing
DG14 Logistics Support Equipment Advanced Development	92	98	105	103	106	103	98	98	Continuing	Continuing
DK39 General Support Equipment Advanced Development	1782	3255	1922	2040	2344	2347	3006	3004	Continuing	Continuing
DK41 Petroleum, Oil and Lubricant (POL) Distribution Equipment Advanced Development	813	824	869	858	904	904	983	981	Continuing	Continuing
D266 Airdrop Equipment Advanced Development	1273	1347	0	0	0	0	0	0	0	2632
D428 Rigidwall Shelter Advanced Development	2277	867	0	0	0	0	0	0	0	3152
D526 Marine Oriented Logistics Equipment Advanced Development	0	10910	2424	2316	2020	1806	3863	3954	Continuing	Continuing
<p>A. Mission Description and Justification: This program supports advanced development of new and improved technologies for combat support and combat service support equipment essential to sustaining combat operations. Advancements in airdrop, rigid wall shelters, marine craft, bridging, electric power generators and batteries, potable water, environmental control and petroleum equipment are necessary to improve safety and increase the tactical mobility, operational capability, lethality and survivability on the digital battlefield of the first to fight; and to provide for greater sustainment of all combat forces while reducing the logistics support burden.</p>										

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BUDGET ACTIVITY
4 - Demonstration and Validation

PE NUMBER AND TITLE
**0603804A Logistics and Engineering Equipment -
Advanced Development**

B. Program Change Summary	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Previous President's Budget (FY 1999 PB)	6574	17478	8886	11191
Appropriated Value	6783	18978		
Adjustments to Appropriated Value				
a. Congressional General Reductions	-209	-133		
b. SBIR / STTR	-158			
c. Omnibus or Other Above Threshold Reductions	-47			
d. Below Threshold Reprogramming	+201			
e. Rescissions				
Adjustments to Budget Years Since FY 1999 PB			-2372	-4926
Current Budget Submit (FY 2000/2001 PB)	6570	18845	6514	6265

Change Summary Explanation: FY 00 and FY01 funding for D526, Marine Oriented Logistics Equipment Advanced Development, reduced due to funding increase received in FY99 to support the JLOTS effort with the Navy. Therefore, the Army recosted out year funding.

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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development					PROJECT DG10	
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
DG10 Advanced Tactical Power Sources - Advanced Development	131	178	199	218	471	470	540	540	Continuing	Continuing
<p>A. <u>Mission Description and Justification</u> This program develops advanced tactical power sources to improve soldier mobility, sustainability, and survivability. This is the only project that bridges the gap between science and technology and full scale production of new higher energy density, lower cost, all-weather batteries/energy conversion systems to satisfy the unique tactical and logistical requirements of portable electronic battlefield equipment. This effort also includes state-of-art measuring and indicating circuitry as well as safety protection circuitry. Superior battery charging and analyzing equipment required to meet unique requirements are also included.</p> <p>FY 1998 Accomplishments:</p> <ul style="list-style-type: none"> • 104 Developed cost effective, lightweight lithium ion rechargeable polymer BB-2847 battery for Force XXI Soldier demo. • 27 Evaluated proof of principle prototype polymer cells and batteries. <p>Total 131</p> <p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 137 Design and develop conformal battery packaging for Standard Family of Rechargeable Lithium Batteries. • 40 Conduct field tests and prepare specifications for thin, conformal rechargeable battery family. • 1 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs <p>Total 178</p> <p>FY 2000 Planned Program:</p> <ul style="list-style-type: none"> • 156 Design and develop fast-charge rechargeable lithium ion polymer batteries. • 43 Demonstrate proof of principle prototype higher power polymer batteries. <p>Total 199</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 171 Develop and test hybrid lithium ion polymer batteries for pulse C4I2W applications. • 47 Test proof of principle batteries using forward field chargers. <p>Total 218</p>										
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B. Other Program Funding Summary: No other related funding lines.

C. Acquisition Strategy: Transition to production

D. Schedule Profile	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Developed and completed field testing of high energy high power next generation primary lithium batteries for Force XXI soldier.	4Q*							
Initiated studies on non-toxic battery materials.								
Developed lithium ion rechargeable polymer BB-2847 battery for Force XXI Soldier demo.	3Q*							
Evaluated proof of principle prototype polymer cells and batteries.	4Q*							
Design and develop conformal battery packaging for Standard Family of Rechargeable Lithium Batteries.		3Q						
Conduct field tests and prepare specifications for thin, conformal rechargeable battery family.		4Q						
Demonstrate proof of principle prototype higher power polymer batteries.			4Q					
Demonstrate hybrid lithium ion polymer batteries for pulse C4I2W applications.				3Q				
Test proof of principle hybrid lithium ion polymer batteries using forward field chargers.				4Q				
Demonstrate advanced high power solid polymer electrolytes in prototype cells.					4Q			
Develop lightweight, low temperature capable, high power rechargeable lithium solid polymer cells and batteries.						4Q		

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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development				PROJECT DG10	
D. Schedule Profile	<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>	
Develop and demonstrate very low temperature rechargeable lithium solid polymer cells and batteries.							4Q		
Develop and test ultra lightweight, high energy density all plastic lithium cells and batteries.								4Q	
*Milestones Completed									
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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development				PROJECT DG11		
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
DG11 Advanced Electrical Energy Concepts Advanced Development	202	1366	995	730	610	1048	649	650	Continuing	Continuing
<p>A. <u>Mission Description and Justification:</u> Provides advanced development for electrical energy devices to improve soldier mobility, readiness and survivability. This project supports initiatives which will lead to tactical electric power procurements in diesel powered generators and power units/power plants rated at 3-920 kilowatts (kW) with higher efficiency, lighter weight, easier maintainability and higher reliability.</p> <p>FY 1998 Accomplishments:</p> <ul style="list-style-type: none"> • 202 Initiated evaluation of lightweight designs for 5, 10 and 15kW generator sets <p>Total 202</p> <p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 677 Procure and evaluate permanent magnet generators, associated electronics and other subsystems for 5-60kW generator sets • 656 Initiate testing of components and subsystems for 5-60kW generator sets • 33 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs <p>Total 1366</p> <p>FY 2000 Planned Program:</p> <ul style="list-style-type: none"> • 400 Complete test and evaluation of commercial components/subsystems • 539 Complete system designs for fabrication of proof of concept systems • 56 Initiate fabrication of prototypes per system designs <p>Total 995</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 176 Complete prototypes • 554 Test and evaluate prototype systems <p>Total 730</p>										
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT DG11
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B. Other Program Funding Summary	<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
RDT&E:PE0604804AA/(D194) Engine Driven Generators Engineering Development	7071	8998	7949	5151	2228	2504	1535	1545	Cont.	Cont.
OPA Generators & Assoc. Equip (MA9800)	9644	68863	79125	90854	52048	79950	58464	54801	Cont.	Cont.

C. Acquisition Strategy: Complete advanced development and transition to engineering development

D. Schedule Profile	<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>
Initiate evaluation of lightweight engine designs	2Q*							
Complete subsystem fabrication		3Q						
Initiate component and subsystem testing		4Q						
Complete component and subsystem testing			2Q					
Design proof of concept systems			4Q					
Complete system prototypes				2Q				
Test system prototypes				4Q				

* Complete

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ARMY RDT&E COST ANALYSIS (R-3)										DATE February 1999		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development						PROJECT DG11		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	<u>FY 1999 Cost</u>	<u>FY 1999 Award Date</u>	<u>FY 2000 Cost</u>	<u>FY 2000 Award Date</u>	<u>FY 2001 Cost</u>	<u>FY 2001 Award Date</u>	Cost To Complete	Total Cost	Target Value of Contract
a. Generator components		CECOM – Belvoir		600	Jan 99					0	600	
b. Generator design & fabricate		CECOM – Belvoir				539	Nov 99			0	539	
c. Generator prototypes		CECOM – Belvoir						106	Nov 00	200	306	
Subtotal Product Development:				600		539		106		200	1445	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	<u>FY 1999 Cost</u>	<u>FY 1999 Award Date</u>	<u>FY 2000 Cost</u>	<u>FY 2000 Award Date</u>	<u>FY 2001 Cost</u>	<u>FY 2001 Award Date</u>	Cost To Complete	Total Cost	Target Value of Contract
a. Generator components		CECOM - In-house		233	Oct 98	76	Oct 99				309	
b. Prototypes		CECOM – In-house						70	Oct 00	75	145	
Subtotal Support Costs:				233		76		70		75	454	
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	<u>FY 1999 Cost</u>	<u>FY 1999 Award Date</u>	<u>FY 2000 Cost</u>	<u>FY 2000 Award Date</u>	<u>FY 2001 Cost</u>	<u>FY 2001 Award Date</u>	Cost To Complete	Total Cost	Target Value of Contract
a. Generator components	Small Purchase		100	483	Nov 98						583	
b. Component/Subsystem		CECOM – Belvoir	102			300	Jan 00				402	
c. Prototypes	TBD	TBD						454	Jan 01	750	1204	
Subtotal Test and Evaluation:			202	483		300		454		750	2189	

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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. Generator components		CECOM – In-house		50	Oct 98	80	Oct 99				130	
b. Prototypes		CECOM – In-house						100	Oct 00	100	200	
Subtotal Management Services:				50		80		100		100	330	
Project Total Cost:			202	1366		995		730		1125	4418	

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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development				PROJECT DG14		
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
DG14 Logistics Support Equipment Advanced Development	92	98	105	103	106	103	98	98	Continuing	Continuing
<p>A. <u>Mission Description and Justification:</u> Working with both the user and industry, this program stays abreast of current needs and available technologies to be integrated into military Materials Handling Equipment (MHE). Categories of MHE include warehouse forklifts, cranes and tow tractors, rough terrain forklifts, container handlers and cranes as well as ancillary equipment. This program develops selected technologies and transitions to procurement a series of Material Handling Equipment items.</p> <p>FY 1998 Accomplishments:</p> <ul style="list-style-type: none"> • 45 Conducted specification conversions for updating to performance specifications. • 20 Initiated efforts to identify candidate MHE fielded items and sources of supply for possible SLEP • 27 Prepared of RTCC program documentation for MS I/III IPR. <p>Total 92</p> <p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 33 Conduct market investigation for general MHE • 32 Preparation of program documentation for MS I/III IPR • 31 Development of performance specifications for MHE buys. • 2 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs <p>Total 98</p> <p>FY 2000 Planned Program:</p> <ul style="list-style-type: none"> • 33 Initiate preparation of acquisition package for Lightweight Container Handlers. • 33 Conduct market investigations for Container Handling Equipment. • 39 Investigate productivity enhancements to existing military variable reach forklifts. <p>Total 105</p>										
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT DG14
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FY 2001 Planned Program:

- 34 Market Investigation to assist in defining the performance characteristics of Container Handling Equipment and Materials Handling Equipment.
- 34 Development of Performance Specifications to support MHE acquisitions
- 35 Development of program documentation to reflect data obtained during Market Investigation Efforts

Total 103

B. Other Program Funding Summary	<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, 0604804.DH14, Logistics Support Equipment	1062	93	102	99	226	247	98	98	Cont.	Cont.
OPA 3, M41200, Truck Fork Lift, DE, PT, RT		20532	0	34008	43494	55705	16183	15975	Cont.	Cont.
OPA 3, M41800, All Terrain Lifting Articulated System	3265	15188	23569	27858	20997	31466	31887	30338	Cont.	Cont.
OPA 3, X00900, RTCC		8592	10930	8383					Cont.	Cont.
OPA 3, ML5365, Items Less Than \$5.0M (MHE)	1644	1667	1763	1740	1863	1857	1949	1953	Cont.	Cont.

C. Acquisition Strategy: Rough Terrain Container Handler (RTCH) – Competitive procurement of integrated NDI, Rough Terrain Container Crane (RTCC) – Competitive procurement of integrated NDI or sole source to original manufacturer for standardization purposes, Warehouse MHE- Competitive procurements for miscellaneous MHE.

D. Schedule Profile	<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>
Market Investigation	1Q-3Q*	1Q-3Q						
Performance Specs	2Q-4Q*	2Q-4Q	4Q-4Q	2Q-4Q	1Q-3Q	1Q-3Q	1Q-3Q	1Q-3Q
Pre-award contract efforts		1Q-2Q		2Q-3Q	1Q-3Q	1Q-3Q	1Q-3Q	1Q-3Q

*Milestone completed

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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development				PROJECT DK39		
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
DK39 General Support Equipment Advanced Development	1782	3255	1922	2040	2344	2347	3006	3004	Continuing	Continuing
<p>A. <u>Mission Description and Justification:</u> Develop and demonstrate the potential of prototype equipment to satisfy water purification, maintenance, and environmental control requirements.</p> <p>FY 1998 Accomplishments:</p> <ul style="list-style-type: none"> • 148 Completed Large Capacity Field Heater technology investigation • 200 Developed R-410A Air Conditioner prototypes • 271 Conducted source selection for the Lightweight Water Purifier (LWP) prototype contract. • 683 Awarded contract for design and fabrication of LWP prototypes. • 294 Prepared test plans for LWP Production Qualification Testing (PQT) and Early User Testing (EUT). • 23 Evaluated the FORSCOM Packaged Water System (PWS). • 40 Conducted abbreviated market investigation of packaging machines. • 83 Awarded task order contract for Analysis of Alternatives (AOA). • 40 Conducted Milestone 0 for PWS. <p>Total 1782</p> <p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 150 Development effort for large heater • 300 Award development contract for 18,000 BTUH vertical air conditioner • 94 Evaluate CO2 components for air conditioners. • 100 Investigate commercial technology applicable to Small Diesel Heaters (60K-100K BTUH). • 800 Conduct Production Qualification Test /Early User Test on the LWP prototypes. • 100 Conduct a Milestone III (TC Generic) In-Process Review on the LWP. • 50 Conduct AOA. • 150 Prepare LWP Production Contract Solicitation • 250 Award LWP EMD Contract Increment 										
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	
<ul style="list-style-type: none"> • 450 Conduct Reverse Osmosis removal studies for industrial and NBC contaminants. 		
<p>FY 1999 Planned Program: (continued)</p>		
<ul style="list-style-type: none"> • 412 Evaluate commercial water treatment components for use in the 600 Reverse Osmosis Water Purification Unit (ROWPU) rebuild and 3000 ROWPU rebuy programs. • 50 Prepare PWS contract solicitation and performance specification. • 266 Fabricate prototype PWS. • 83 Small Business Innovative Research/Small Business Technology Transfer Program (SBIR/STTR) 		
Total	3255	
<p>FY 2000 Planned Program:</p>		
<ul style="list-style-type: none"> • 330 Award development contract for 9,000 BTUH Environmental Control Unit (ECU) • 304 Award development contract for prototype automotive CO2 ECU • 372 Conduct source selection for the LWP production contract package. • 150 Develop a test plan and an economic analysis model to evaluate the technical applicability and the return on investment for the water and wastewater treatment equipment identified for potential incorporation into military water purifiers. • 250 Perform a technical and economic evaluation of a commercially available water or wastewater treatment component to gather data to validate the test plan and cost model developed under the Water Purification Components program. • 50 PWS Source Selection Evaluation Board • 375 Award first increment for PWS EMD prototype. • 91 Perform market investigation for digitized water quality and quantity surveillance. 		
Total	1922	
<p>FY 2001 Planned Program:</p>		
<ul style="list-style-type: none"> • 350 Award development contract for prototype absorption ECU • 350 Award development contract for prototype shelter CO2 ECU • 150 Perform market research on commercially available water and wastewater treatment equipment that can be used to reduce the wastewater disposal costs associated with the operation of Quartermaster laundry, shower and water treatment systems. • 100 Complete validation of the test plan and cost model developed under the Water Purification Components program. • 300 Perform in-house testing on water and wastewater treatment systems identified in the market research on state-of-the-art water and wastewater treatment equipment that may be able to increase the capability of existing military water purifiers. • 400 PWS production qualification and logistics demonstration. 		
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- 390 Test and evaluate digitized water quality and surveillance prototypes.
- Total 2040

B. Other Program Funding Summary	<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
OPA3, MF9301/M19600, Army Space Heater 120K BTU (ASH)	855	1051	912	935	932	5867	3898	5886	Cont.	Cont.
OPA3, MF9302, Large Capacity Field Heater 400K BTU			1312	1657		1953			Cont.	Cont.
OPA3, MF9303/MF9300, Air Conditioners			3756	3801	1350	6893	10523	22681	Cont.	Cont.
RDTE, 0604804.DL39, General Support Equipment Engineering Development	1778	2494	2127	2028	4422	3979	4634	4063	Cont.	Cont.
OPA 3, ML5335, Items Less Than \$5.0M (Water Equipment)	2628	1251	1737	1597	859	628	4795	7026	Cont.	Cont.
OPA 3, RO5100 Water Purification Systems			10396	35370	34887	39574	12371	6568	Cont.	Cont.

C. Acquisition Strategy: ECU: Develop ECU/Heater Performance Descriptions based on development technology investigations and transfer to Procurement for competitive production contract awards. Petroleum and Water Systems (PAWS): Transition to development of engineering prototypes or select Non-Developmental Item based on market survey and proposals from industry.

D. Schedule Profile	<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>
Develop R-410A ECU prototypes	2Q*							
Develop Large Capacity Field Heater Prototype	2Q*							
Develop 18K Vertical ECU prototypes		2Q						
Develop 9K ECU prototype			2Q					
Investigate Automotive CO2 technology			1Q					
Investigate absorption ECU technology				1Q				
Develop tactical shelter CO2 ECU prototype				2Q				
Award EMD Contract for prototype LWPs.	4Q*							
Design and fabricate prototype LWPs.		1Q-2Q						
Initiate PQT and EUT for the LWP.		3Q						
Complete the LWP PQT/EUT.		4Q						

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D. Schedule Profile	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Prepare LWP production contract package.		1Q-4Q						
LWP MS III Decision Review		1Q						
LWP MS III TC Generic		1Q						
Evaluate FORSCOM Packaged water System (PWS)	4Q*							
PWS MS 0 IPR	1Q*							
Prepare PWS program documentation		1Q-4Q						
Prepare PWS contract solicitation.		1Q-4Q						
Conduct PWS MS II (TC Generic)					1Q			
Water Purification Components program.			1Q-4Q	1Q-4Q	1Q-4Q			
Digitized Water Quality and Quantity Surveillance.			2Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q		
Future Water Recovery and Reuse.					3Q	1Q-4Q	1Q-4Q	1Q-4Q
PWS PQT & Logistics Demonstration				2Q-3Q				
Evaluate RO removal of industrial/NBC contaminants		2Q-4Q						
Perform wastewater treatment system market investigations		2Q-4Q						
Conduct evaluation of commercially available wastewater treatment systems		4Q	1Q-3Q					

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ARMY RDT&E COST ANALYSIS (R-3)										DATE February 1999		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development						PROJECT DK39		
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. Large heater engineering	In-house	US Army CECOM Ft. Belvoir, VA		150							150	
b. 18K vert ECU contract	FP	Contractor, TBD	0	200	Jan 00					0	200	200
c. 18K ECU engineering	in-house	US Army CECOM Ft. Belvoir, VA		50							50	
d. CO2 components	In-house	US Army CECOM Ft. Belvoir, VA		94							94	
e. 9K ECU prototype contract	FP	Contractor, TBD	0			200	Feb 00			0	200	200
f. 9K ECU engineering	In-house	US Army CECOM Ft. Belvoir, VA				50					50	
g. Automotive CO2 development contract	FP	Contractor, TBD	0			250	Nov 99			0	250	250
h. CO2 engineering	In-house	US Army CECOM Ft. Belvoir, VA				44					44	
i. Absorption ECU development contract	FP	Contractor, TBD	0					225	Nov 99	0	225	225
j. Absorption engineering	In-house	US Army CECOM Ft. Belvoir, VA						80			80	
k. Shelter CO2 development contract	FP	Contractor, TBD	0					225	Feb 00	0	225	225
l. CO2 engineering	In-house	US Army CECOM Ft. Belvoir, VA						80			80	
m. TARDEC Engineering	In-House		704	750	Nov 99	477	Nov 00	500	Nov 01	Cont.	2431	
n. Contractors (LWP)	CPFF/PO	George Scott Intl. Pensacola, FL	1168	250	Nov 99	450	May 00	200	Mar 01	Cont.	2068	
o. ARL Engineering	MIPR	Edgewood, MD	43	20	Dec 99	10	Dec 00	10	Dec 01	Cont.	83	
p. CECOM Support	MIPR	US Army CECOM Ft Belvoir, VA	1054							Cont.	1054	
q. NFESC	MIPR	Port Hueneme, CA		50	Dec 98	50	Dec 99	50	Dec 00	Cont.	150	
CRREL	MIPR	Hanover, NH		10	Jan 99	10	Jan 00				20	

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ARMY RDT&E COST ANALYSIS (R-3)										DATE February 1999		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development						PROJECT DK39		
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
Subtotal Product Development:			2969	1574		1541		1370			7454	
II. Support Costs	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
b. TARDEC	In-House/MIPR		1267	350	Dec 99	191	Dec 00	290	Dec 01	Cont.	2098	
Subtotal Support Costs:			1267	350		191		290			2098	
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. ECU component tests	In-house	US Army CECOM, FT. Belvoir, VA		50							50	
b. CO2 component tests	In-house	US Army CECOM, FT. Belvoir, VA				50					50	
c. Absorption component tests	In-house	US Army CECOM, FT. Belvoir, VA						50			50	
TECOM	MIPR	APG, MD	175	623	Mar 99	100	Jan 00			Cont.	898	
TARDEC	MIPR	US Army TACOM, Warren, MI		305	Jan 99			300	Nov 01	Cont.	605	
NBC Removal Tests	MIPR	US Army TECOM Dugway Proving Gnd		150	Feb 99						150	
Wastewater Testing	MIPR	David Taylor Naval Research Ctr		150	Mar 99						150	
Subtotal Test and Evaluation:			175	1278		150		350			1953	

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ARMY RDT&E COST ANALYSIS (R-3)	DATE February 1999
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT DK39
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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. ECU/Heater support	In-house	US Army CECOM, FT. Belvoir, VA		53							53	
b. ECU/Heater support	In-house	US Army CECOM, FT. Belvoir, VA				40					40	
c. ECU/Heater support	in-house	US Army CECOM, FT. Belvoir, VA						30			30	
Subtotal Management Services:				53		40		30			123	
Project Total Cost:			4411	3255		1922		2040			11628	

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BUDGET ACTIVITY
4 - Demonstration and Validation

PE NUMBER AND TITLE
**0603804A Logistics and Engineering Equipment -
Advanced Development**

COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
DK41 Petroleum, Oil and Lubricant (POL) Distribution Equipment Advanced Development	813	824	869	858	904	904	983	981	Continuing	Continuing

A. Mission Description and Justification: Develop and demonstrate the potential of prototype equipment to satisfy petroleum distribution requirements.

FY 1998 Accomplishments:

- 45 Prepared and coordinated Petroleum Quality Analysis System (PQAS) program management documentation (PMD).
 - 233 Demonstrated feasibility of PQAS analytical instruments for use in forward areas.
 - 157 Developed baseline technical requirements for Petroleum Quality Surveillance Laboratory (PQSL).
 - 250 Began investigation of Lightweight Pipeline Alternatives to support FXXI.
 - 128 Initiated analysis of extent of Petroleum and Water Systems (PAWS) automation/digitization for the Digitized Division and Corps.
- Total 813

FY 1999 Planned Program:

- 180 Prepare PQSL contract package for design, fabrication, and test.
 - 145 Prepare PQSL PMD and conduct MS I/II IPR.
 - 198 Complete analysis of FXXI Lightweight Pipeline Alternatives; recommend implementation approach.
 - 279 Identify PAWS to be automated/digitized, and recommend implementation strategy.
 - 22 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs
- Total 824

FY 2000 Planned Program:

- 569 Demonstrate selected approach for FXXI Lightweight Pipeline Alternative.
 - 300 Award incrementally funded contract for portable in-service oil analyzer/sensors.
- Total 869

FY 2001 Planned Program:

- 308 Develop brassboard prototypes of Advanced Fuel Quality Analysis Sensors.
- 550 Test and evaluate portable in-service oil analyzer/sensors.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)		DATE
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Demonstration and Validation	0603804A Logistics and Engineering Equipment - Advanced Development	DK41
Total	858	

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT DK41
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B. Other Program Funding Summary	<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, 0604804.DL41, Fuels and Equipment Engineering Development	768	1078	5327	4904	3830	2472	1479	1478	Cont.	Cont.
OPA3, ML5330, Items Less Than \$5 million (POL)	6865	4613	3083	4053	4898	8568	4980	4136	Cont.	Cont.

C. Acquisition Strategy: Develop engineering prototypes or select Non-Developmental Item based on market surveys and proposals from industry.

D. Schedule Profile	<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>
Prepared performance requirements for PQAS production phase.								
Updated PQAS PMD for MS II IPR.								
Completed fabrication and testing of PQAS technology demonstration model.								
Demonstrated feasibility of PQAS analytical instruments.	3Q*							
Prepared and coordinated PQAS PDM.	3Q*							
Developed baseline technical requirements for PQSL.	4Q*							
Awarded contract for analysis of extent of PAWS automation/digitization.	4Q*							
Complete analysis of pipeline alternatives.		3Q						
Prepare PQSL contract package for design, fabrication, and test.		1Q-4Q						
Complete identification of PAWS to be automated/digitized.		4Q						
Prepare PQSL PMD and conduct MS I/II IPR.			2Q-4Q					
Award contract for portable oil analyzer/sensors.			3Q					
Demonstrate pipeline alternatives.			3Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							DATE February 1999	
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development			PROJECT DK41	
D. Schedule Profile	<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>
Develop brassboard prototypes of Advanced Fuel Quality Analysis Sensors.				1Q-3Q				
Test and evaluate portable oil analyzer/sensors.				2Q-4Q				
Continue development of Advanced Fuel Quality Analysis Sensors.					2Q-4Q	1Q-4Q		
Develop Advanced POL Decontamination Technology for AAN.						3Q-4Q	1Q-4Q	
Develop AAN SARS Robotic Refueling.							2Q-4Q	1Q-4Q

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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 0603804A Logistics and Engineering Equipment -					PROJECT D266	
				Advanced Development						
<i>COST (In Thousands)</i>	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D266 Airdrop Equipment Advanced Development	1273	1347	0	0	0	0	0	0	0	2632
<p>A. <u>Mission Description and Justification:</u> 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.</p> <p>FY 1998 Accomplishments:</p> <ul style="list-style-type: none"> • 465 Completed and executed Advanced Tactical Parachute System (ATPS) component development and performance validation contract. • 808 Initiated Extraction Parachute Jettison Device (EPJD) effort. Conducted market survey and initiated feasibility testing on NDI candidates. <p>Total 1273</p> <p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 741 Initiate and conduct Developmental Testing of ATPS. • 590 Initiate Developmental Testing of EPJD, obtain tri-service certification of load extraction system. • 16 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs <p>Total 1347</p> <p>FY 2000 Planned Program: Mission and dollars transferred to PE 0603747A/DC09</p> <p>FY 2001 Planned Program: Mission and dollars transferred to PE 0603747A/DC09</p>										
B. <u>Other Program Funding Summary</u>										
	<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, 0604804.D279 Airdrop Equipment Engineering Development	1523	1361	0	0	0	0	0	0	0	2884
<p>C. <u>Acquisition Strategy:</u> Rapid development through the acquisition lifecycle, capitalizing on all opportunities to accelerate development, production and fielding.</p>										
Project D266			Page 22 of 30 Pages				Exhibit R-2A (PE 0603804A)			

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)	DATE February 1999
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT D266
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D. Schedule Profile	<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>FY2005</u>
ATPS Component Development and Performance Validation	4Q*							
EPJD Component Development and Performance Validation		1Q						
EPJD Developmental Testing		4Q						

* Milestones Completed

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BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development					PROJECT D428	
<i>COST (In Thousands)</i>	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D428 Rigidwall Shelter Advanced Development	2277	867	0	0	0	0	0	0	0	3152
<p>A. <u>Mission Description and Justification:</u> 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>FY 1998 Accomplishments:</p> <ul style="list-style-type: none"> • 1452 Completed vulnerability assessment for Standard Integrated Command Post System (SICPC) shelter. Fabricated sample shelter panels. Note: SICPS program moved out of D428 beginning in FY99 to PE63747/DC09. • 825 Completed development and technical feasibility testing of Cargo Bed Cover (CBC) 2.5 Ton truck variant. Designed and fabricated test prototypes for 5 Ton truck CBC Variant. HMMWV CBC Variant effort was moved to D429. <p>Total 2277</p> <p>FY 1999 Planned Program:</p> <ul style="list-style-type: none"> • 864 Complete Milestone I/II for 2.5 ton truck CBC variant. Prepare solicitation and award LRIP/Production contract for CBC 2.5 Ton truck variant, build LRIP items and initiate First Article Testing (FAT). Complete fabrication of test prototypes, conduct Technical Feasibility Testing and complete development for 5 ton truck CBC variant. • 3 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs <p>Total 867</p> <p>FY 2000 Planned Program: Mission and dollars transferred to PE 0603747A/DC09</p> <p>FY 2001 Planned Program: Mission and dollars transferred to PE 0603747A/DC09</p>										
B. Other Program Funding Summary										
	<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>	<u>To Compl</u>	<u>Total Cost</u>
RDTE, 0604804.D429, Rigidwall Shelter Engineering Development	1403	902	0	0	0	0	0	0	0	2314
<p>C. <u>Acquisition Strategy:</u> Product development and testing up to Engineering and Manufacturing Development.</p>										

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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)	DATE February 1999
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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT D428
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D. Schedule Profile	<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>	<u>To Comp</u>	<u>To Comp</u>
Designed/Fabricated 5 Ton Truck CBC Variant	4Q*									
Completed Development and Testing of 2½ Ton Truck CBC Variant	3Q*									
Complete MS I/II for 2½ Ton Truck CBC Variant.		2Q								
Award LRIP Contract for 2½ Ton Truck CBC Variant		2Q								
Complete Development and Testing of 5 Ton Truck CBC Variant		4Q								

*Denotes completed milestone

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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 0603804A Logistics and Engineering Equipment - Advanced Development				PROJECT D526		
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D526 Marine Oriented Logistics Equipment Advanced Development	0	10910	2424	2316	2020	1806	3863	3954	Continuing	Continuing

A. Mission Description and Justification: Provides funds for the Army's share of the Joint Lighterage and Causeway Program. This program, managed jointly with the Navy, will improve cargo offload speed under normal sea states and allow for successful offload under challenging sea state conditions. These efforts will significantly improve operational capability and flexibility. Funds will permit efforts to develop joint plans and materiel in conjunction with the Navy and Marines, truly integrating Logistics Over The Shore (LOTS) capabilities. Project funds will also serve to support conceptual development of the Rapidly Installed Breakwater (RIB). This project will also assist the Army to conduct LOTS exercises under adverse sea state conditions. Together, these efforts will extend capabilities of the joint Army/Navy LOTS program, and allow the Army to proceed with deployment of forces under less than ideal sea and weather conditions. The FY 00 Program supports the definition of the Port Communications and Control Center (PCCC). The center will track and direct the progress of vessel movements and loading/unloading during LOTS operations. The PCCC program will provide for the safe and efficient management of Army and Joint Port Operations during deployment of forces; both under degraded/non-existent port conditions and in adequate port facilities. The FY 01 program will cover two initiatives. The first effort will begin advanced development of program parameters and performance characteristics for the new Landing Craft Utility (LCU) 2000. This will support the upcoming funded acquisition of new vessels in FY 04 and out. The second effort will focus on Operations and Support (O&S) cost reduction. A study will be conducted to identify specific cost-effective efforts which can be undertaken to improve the Army's O&S posture within the watercraft fleet. The study will examine areas such as Fuel Management, Lubrication, Paints, Maintenance Frequencies & Procedures, etc. Follow-on acquisition or maintenance initiatives will be developed for the most promising study recommendations.

FY 1998 Accomplishments: Project not funded in FY 1998.

FY 1999 Planned Program:

- 1521 Conceptual development of the Rapidly Installed Breakwater (RIB).
- 9100 Joint program with Navy to develop Sea State 3 Capable Causeways/Lighterage.
- 289 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs

Total 10910

FY 2000 Planned Program:

- 2424 Port Communications and Control Center (PCCC)- Advanced Development & Prototyping

Total 2424

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT D526
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- FY 2001 Planned Program:**
- 1657 Landing Craft Utility Parameters and Performance Characteristics
 - 659 Operations & Support Cost Reduction Study
- Total 2316

B. Other Program Funding Summary	<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, 0604804A, D461, Marine Oriented Logistics, Engineering Development		2070	4283	1454	1212	2720	2788	2861	Cont.	Cont.
OPA 3, M32400, Floating Crane, 100-250 Ton	13555	14959	0	0	0	0	0	0	Cont.	Cont.
OPA 3, M44500, Pusher Tug, Small	6506	8545	0	0	0	0	0	0	Cont.	Cont.
OPA 3, R09600, Causeway, Powered System	0	0	8070	0	8818	9425	5412	5459	Cont.	Cont.
OPA 3, R09800, RO/RO Discharge Platform	0	17037	8670	12861	0	0	12303	12386	Cont.	Cont.
OPA 3, R09900, Causeway, Floating	0	0	0	4895	0	0	0	0	Cont.	Cont.
OPA 3, M11200, Logistic Support Vessel (LSV)	0	0	18924	0	18426	18044	0	0	Cont.	Cont.
OPA 3, M11201, Logistic Support Vessel (ESP)	0	0	0	6097	7283	13091	0	0	Cont.	Cont.
OPA 3, M32500, Rapidly Installed Breakwater	0	0	0	0	4687	4662	0	0	Cont.	Cont.
OPA 3, M11300, Containerized Maintenance Facility	0	5286	0	0	0	0	0	0	Cont.	Cont.
OPA 3, M34200, Landing Craft Utility 2000							19488	19622	Cont.	Cont.

C. Acquisition Strategy: RIB: Engineering work to be accomplished by the Corps of Engineers Waterways Experiment Station (WES) (current developers). However, programmatic documentation for the RIB will be undertaken via contract. Support for the Joint Sea State 3 Causeway and Lighterage System will be undertaken with the Navy PM and executed through Navy contract and in-house vehicles. PCCC Advanced Development & Prototyping will be undertaken through competitive contract. The current Watercraft Communications, Electronics, & Navigation (CEN) Equipment contractor is Conley & Associates. FY 01 efforts will be conducted primarily with the Naval Surface Warfare Center (NSWC). NSWC can call on both in-house and contract resources (based on workload and expertise) to cover Army requirements.

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT D526
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D. Schedule Profile	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2004	FY 2005
Conceptual Development of the RIB.			2Q-3Q							
Joint Program with Navy to develop Sea State 3 Capable Causeways/Lighterage.			2Q-4Q							
PCCC- Advanced Development & Prototyping				2Q-4Q						
LCU Parameters and Performance Characteristics					2Q-4Q					
Operations & Support Cost Reduction Study					2Q-4Q					

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT D526
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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. Modern Technologies Corp. (MTC)	SS-FP	Warren, MI		563	Apr					Cont.	563	
a. Navy (NSWC)	MIPR	Suffolk, VA				21	May	2187	Dec	Cont.	2208	
b. Navy (PM JMLS)	MIPR	Hueneme, CA		8906	Jan		May		Dec	Cont.	8906	
c. COE (WES)	MIPR	Vicksburg, MS		1122	Jan					Cont.	1122	
d. Conley & Assoc.	SS-FP	St. Louis, MO				2292	Feb			Cont.	2292	
Subtotal Product Development:				10591		2313		2187			15091	

II. Support Costs	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. TACOM IMMC	MIPR	Warren, MI		37	Jan	15	Oct	31	Oct	Cont.	83	
Subtotal Support Costs:				37		15		31			83	

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	MIPR	APG, MD		105	Jan	21	May	15	May	Cont.	141	
Subtotal Test and Evaluation:				105		21		15			141	

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603804A Logistics and Engineering Equipment - Advanced Development	PROJECT D526
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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. Transportation Systems Mgt. Ofc.	MIPR	TACOM, Warren, MI		177	Jan	75	Oct	83	Oct		335	
Subtotal Management Services:				177		75		83			335	
Project Total Cost:				10910		2424		2316			15650	