

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

| COST (In Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
|---|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| Total Program Element (PE) Cost | 23595 | 29326 | 65857 | 28257 | 25044 | 26606 | 23763 | Continuing | Continuing |
| 194 ENGINE DRIVEN GEN ED | 4939 | 4966 | 5590 | 3228 | 3118 | 5574 | 4049 | Continuing | Continuing |
| 429 RIGIDWALL SHELTER ED | 3941 | 7954 | 0 | 0 | 0 | 0 | 0 | 0 | 7456 |
| 461 MARINE ORIEN LOG EQ ED | 1398 | 6182 | 38780 | 10326 | 6831 | 3436 | 3028 | 0 | 75708 |
| H01 COMBAT ENGINEER EQ ED | 791 | 2631 | 4422 | 4240 | 4341 | 4771 | 4858 | 0 | 35756 |
| H02 TACTICAL BRIDGING - ENGINEERING DEVELOPMENT | 618 | 1105 | 1831 | 1979 | 1975 | 2491 | 1989 | 0 | 12320 |
| H14 MATERIALS HANDLING EQUIPMENT - ED | 572 | 591 | 1589 | 592 | 590 | 598 | 597 | 0 | 8669 |
| L39 ENVIRONMENTAL EQUIPMENT - ED | 4358 | 992 | 1083 | 1505 | 1474 | 1524 | 1522 | Continuing | Continuing |
| L41 WATER AND PETROLEUM DISTRIBUTION - ED | 6058 | 3730 | 9763 | 4654 | 4079 | 5510 | 5497 | Continuing | Continuing |
| L42 CAMOUFLAGE SYSTEM ED | 364 | 327 | 345 | 486 | 1452 | 1495 | 995 | 0 | 6657 |
| L43 ENGINEER SUPPORT EQUIPMENT - ED | 556 | 848 | 2454 | 1247 | 1184 | 1207 | 1228 | 0 | 8958 |

A. Mission Description and Budget Item Justification: Included within this program element is the development of military tactical bridging, materiel handling equipment, construction equipment, engineer support equipment, environmental equipment, water purification equipment, petroleum distribution equipment, mobile electric power and water craft.

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

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

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

| <u>B. Program Change Summary</u> | FY 2001 | FY 2002 | FY 2003 |
|--|---------|---------|---------|
| Previous President's Budget (FY2002 PB) | 24333 | 30673 | 25115 |
| Appropriated Value | 24557 | 29573 | 0 |
| Adjustments to Appropriated Value | 0 | 0 | 0 |
| a. Congressional General Reductions | 0 | -247 | 0 |
| b. SBIR / STTR | -696 | 0 | 0 |
| c. Omnibus or Other Above Threshold Reductions Inflation | 0 | 0 | 0 |
| d. Below Threshold Reprogramming | -40 | 0 | 0 |
| e. Rescissions | -226 | 0 | 0 |
| Adjustments to Budget Years Since FY2001 PB | 0 | 0 | 40742 |
| Current Budget Submit (FY 2003 PB) | 23595 | 29326 | 65857 |

Funding - FY 2003: Increase provided by the Army supports to the Theater Support Vessel joint lease and test program which will provide Intra-Theater lift capability, Rigidwall Shelters, Engine Driven Generators, Combat Engineer Equipment, Tactical Bridging and Water and Petroleum Distribution development.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

| | | | | | | | | | |
|---|-------------------|---------------------|---------------------|---|---------------------|---------------------|---------------------|-----------------------|------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | | | | PE NUMBER AND TITLE 0604804A - Logistics and Engineer Equipment - Eng Dev | | | | PROJECT 194 | |
| COST (In Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
| 194 ENGINE DRIVEN GEN ED | 4939 | 4966 | 5590 | 3228 | 3118 | 5574 | 4049 | Continuing | Continuing |

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

This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

- 3544 Continued hardware system development & demonstration for 100 & 200kW Tactical Quiet Generators (TQG). (Qty - 28).
- 1395 Completed fabrication and initiated test, evaluation and demonstration of 5kW Advanced Medium Mobile Power Sources (AMMPS) prototypes. (Qty - 1).

Total 4939

FY 2002 Planned Program

- 4436 Continue hardware system development and demonstration for 100/200kW TQG.
- 310 Complete Performance Specification for AMMPS.
- 220 Complete testing of AMMPS.

Total 4966

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
194

FY 2003 Planned Program

- 4826 Award two or more Phase 1 contracts for AMMPS (6 units from each contract).
- 764 Complete testing and transition 100/200kW TQG to production and deployment.

Total 5590

| <u>B. Other Program Funding Summary</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>To Compl</u> | <u>Total Cost</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-------------------|
| 0603804A - Logistics and Engineer Equipment Adv Dev G11 | 700 | 996 | 1560 | 1541 | 1549 | 1600 | 1507 | Continuing | Continuing |
| OPA3, MA9800 Generators and Associated Equipmwent | 91040 | 61835 | 79180 | 64895 | 64823 | 60869 | 56667 | Continuing | Continuing |

C. Acquisition Strategy: Developmental items in this project will transition to competitive procurement.

| <u>D. Schedule Profile</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Award Phase II system development and demonstration for fabrication of PPQT 100/200kW TQG | 3Q | | | | | | |
| Complete fabrication of 5kW AMMPS prototype | 4Q | | | | | | |
| Initiate testing of AMMPS prototype | 4Q | | | | | | |
| Complete AMMPS prototype testing | | 4Q | | | | | |
| Complete solicitation package for AMMPS | | 4Q | | | | | |
| AMMPS Milestone B | | | 1Q | | | | |
| Transition 100/200kW TQG to Procurement (Milestone C) | | | 2Q | | | | |
| Award Phase I contracts for AMMPS: Develop military system | | | 2Q | | | | |
| Initiate Phase I testing of AMMPS | | | | 2Q | | | |
| Award Phase II contract for AMMPS family | | | | | 1Q | | |

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
194

| D. Schedule Profile (continued) | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Initiate Man Portable Power (MPP) Program | | | | | | 1Q | |
| Complete testing of Phase II AMMPS | | | | | | 4Q | |
| Begin preparation of Performance Specification for Man Portable Power Program | | | | | | | 1Q |
| AMMPS transition to production and deployment (Milestone C) | | | | | | | 2Q |

PPQT (Preproduction Quality Test)

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev **PROJECT 194**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|------------------------|------------------------|--|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . 100/200kW TQG | C-CPFF | Fermont & Gen Dyn Robotics Systems, Bridgeport, CT | 3800 | 3184 | 3Q | 1634 | 1Q | 0 | | 0 | 8618 | 8618 |
| b . AMMPS(5-60kW) | C-CPFF | CECOM, Ft Belvoir, VA | 3441 | 810 | 1Q | 0 | | 4245 | 2Q | 4790 | 13286 | 13286 |
| Subtotal: | | | 7241 | 3994 | | 1634 | | 4245 | | 4790 | 21904 | 21904 |

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|-------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . AMMPS(5-60kW) | In-house | CECOM, Ft Belvoir, VA | 730 | 385 | 1Q | 155 | 1Q | 395 | 1Q | 1412 | 3077 | 3077 |
| b . 100/200kW TGQ | In-house | CECOM, Ft Belvoir, VA | 409 | 210 | 1Q | 183 | 1Q | 0 | | 0 | 802 | 802 |
| Subtotal: | | | 1139 | 595 | | 338 | | 395 | | 1412 | 3879 | 3879 |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

194

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . 100/200kW | TBD | TBD | 0 | 0 | | 2339 | 1Q | 450 | 1Q | Continue | Continue | Continue |
| b . AMMPS(5-60kW) | TBD | TBD | 75 | 0 | | 155 | 1Q | 0 | | Continue | Continue | Continue |
| Subtotal: | | | 75 | 0 | | 2494 | | 450 | | Continue | Continue | Continue |

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|-------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . 100/200kW | In-house | CECOM, Ft Belvoir, VA | 372 | 150 | 1Q | 250 | 1Q | 250 | 1Q | Continue | Continue | Continue |
| b . AMMPS(5-60kW) | In-house | CECOM, Ft Belvoir, VA | 457 | 200 | 1Q | 250 | 1Q | 250 | 1Q | Continue | Continue | Continue |
| Subtotal: | | | 829 | 350 | | 500 | | 500 | | Continue | Continue | Continue |

| | | | | | | | | | | | | |
|---------------------|--|--|------|------|--|------|--|------|--|----------|----------|----------|
| Project Total Cost: | | | 9284 | 4939 | | 4966 | | 5590 | | Continue | Continue | Continue |
|---------------------|--|--|------|------|--|------|--|------|--|----------|----------|----------|

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

| | | |
|---|---|-----------------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | PE NUMBER AND TITLE 0604804A - Logistics and Engineer Equipment - Eng Dev | PROJECT 461 |
|---|---|-----------------------|

| COST (In Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
|-------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| 461 MARINE ORIEN LOG EQ ED | 1398 | 6182 | 38780 | 10326 | 6831 | 3436 | 3028 | 0 | 75708 |

A. Mission Description and Budget Item Justification: This project provides funds for the engineering and pre-production development of equipment in support of the Army's Logistics-Over-The-Shore (LOTS), In-theatre Port Control, and Intercoastal/Riverine Logistics missions. Projects supported include engineering development for the Navy led Joint Modular Lighterage System (JMLS), and the Army's Rapidly Installed Breakwater (RIB) Project; both of which are aimed at allowing defense forces to continue to offload critical equipment and supplies under challenging sea state conditions. Funds also support pre-production activity on the Logistics Support Vessel (LSV) Extended Service Program (ESP)/Upgrade and the Harbormaster Command and Control Center (HCCC). The HCCC program will provide for the safe and effective management of Army and Joint Port Operations during deployment of forces; both under LOTS conditions and operations in existing port facilities. Future efforts will complete development effort on the Landing Craft Utility (LCU) Recapitalization and the Theatre Support Vessel (TSV). TSV will replace the Army's aging LSV and support the Army's intra theater transport mission. The Army is participating in the joint High Speed Vessel (HSV) lease and test program.

These systems support the Legacy-to-objective transition path of the Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

- 612 Continued development of JMLS in preparation for the Military User Assessment (MUA).
- 786 Awarded contract for one Harbormaster Command and Control Center (HCCC) prototype, developed Program Documentation and began Verification Test.

Total 1398

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)**February 2002**

BUDGET ACTIVITY

5 - Engineering and manufacturing development

PE NUMBER AND TITLE

**0604804A - Logistics and Engineer Equipment - Eng
Dev**

PROJECT

461**FY 2002 Planned Program**

- 1148 Complete HCCC Main Unit Prototype and conduct Developmental Testing.
- 5034 Army contribution to Theater Support Vessel (TSV) Joint lease/test program.

Total 6182

FY 2003 Planned Program

- 35334 Army Support for TSV joint lease/test program. Obtain Decision Review (pre milestone B Decision Point).
- 3446 Fabricate and conduct Developmental Test on the HCCC Remote Unit and conduct Operational Test on the HCCC System.

Total 38780

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
461

| <u>B. Other Program Funding Summary</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>To Compl</u> | <u>Total Cost</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-------------------|
| RDTE, 0603804A,526, Marine Oriented Logistics, Advanced Development | 2213 | 1995 | 1793 | 3822 | 3899 | 4080 | 3283 | Continuing | Continuing |
| OPA 3, R97500, Causeway, Systems | 26647 | 0 | 29673 | 0 | 0 | 0 | 0 | 0 | 62989 |
| OPA 3, M11200, Logistic Support Vessel (LSV) | 0 | 25260 | 0 | 0 | 0 | 0 | 0 | 0 | 47774 |
| OPA 3, M11203, Theatre Support Vessel (TSV) | 0 | 0 | 0 | 0 | 0 | 84043 | 79393 | Continuing | Continuing |

C. Acquisition Strategy: Developmental items in this project will transition to competitive procurement.

| <u>D. Schedule Profile</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rapidly Installed Breakwater (RIB) Awards | | 1-4Q | 1-2Q | | | | |
| Harbormaster Command & Control Center (HCCC) Contract Award | 2-4Q | | 1-4Q | | | | |
| Land Craft Utility (LCU) Parameters and Performance Characteristics | | 1-4Q | 1-2Q | | | | |
| Theater Support Vessel Joint Lease/Test program | | 1-4Q | 1-4Q | | | | |
| Operations & Support Cost Reduction Study | | | | 2-4Q | | | |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev **PROJECT 461**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|------------------------|------------------------|---|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . RIB | FC-FP | Modern Technologies Inc, Warren, MI | 477 | 0 | | 0 | | 0 | | 0 | 477 | 477 |
| b . JMLS | MIPR | Navy (PM JMLS), Hueneme, CA | 1569 | 362 | 1-4Q | 0 | | 0 | | 0 | 1931 | 1931 |
| c . RIB | MIPR | Corps of Engineers (WES), Vicksburg, MI | 756 | 0 | | 0 | | 0 | | 0 | 756 | 756 |
| d . LSV ESP/Upgrade | MIPR | Navy (NSWC), Suffolk, VA | 251 | 0 | | 0 | | 0 | | 0 | 251 | 251 |
| e . HCCC | MIPR | Navy (NSWC), Suffolk, VA | 0 | 0 | | 653 | 2-3Q | 1525 | 1-4Q | Continue | Continue | Continue |
| f . HCCC | MIPR | IOC, Rock Island Arsenal | 0 | 150 | 1-4Q | 0 | | 0 | | Continue | Continue | Continue |
| g . HCCC | FC-FP | Conley & Associates, St.Louis, MO | 0 | 264 | 1-4Q | 0 | | 0 | | 0 | 264 | 264 |
| h . TSV | MIPR | NSWC, Suffolk, VA | 0 | 0 | | 340 | 2-3Q | 2264 | 1-4Q | Continue | Continue | Continue |
| i . LCU Recap | MIPR | NSWC, Suffolk, VA | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| j . TSV | MIPR | Bollinger/INCAT | 0 | 0 | | 2750 | 1-4Q | 5453 | 1-4Q | Continue | Continue | Continue |
| k . TSV | MIPR | Bender/Austal | 0 | 0 | | 0 | | 19544 | 1Q | 0 | 19544 | 19544 |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

461

| I. Product Development (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---------------------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| Subtotal: | | | 3053 | 776 | | 3743 | | 28786 | | Continue | Continue | Continue |

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . JMLS | MIPR | TACOM CBU, Warren, MI | 23 | 100 | 1-4Q | 0 | | 0 | | 0 | 123 | 123 |
| b . RIB | MIPR | TACOM CBU, Warren, MI | 25 | 0 | | 0 | | 0 | | 0 | 25 | 25 |
| c . HCCC | MIPR | TACOM CBU, Warren, MI | 0 | 15 | 1-4Q | 10 | 2-3Q | 40 | 1-4Q | Continue | Continue | Continue |
| d . TSV | MIPR | TACOM CBU, Warren, MI | 0 | 0 | | 151 | 2-3Q | 262 | 1-4Q | Continue | Continue | Continue |
| e . HCCC | MIPR | TACOM NET, Warren, MI | 0 | 0 | | 5 | 2-3Q | 10 | 2-3Q | Continue | Continue | Continue |
| f . HCCC | MIPR | Safety Office, Warren, MI | 0 | 0 | | 10 | 2-3Q | 50 | 1-4Q | Continue | Continue | Continue |
| g . TSV | MIPR | TACOM Safety Office | 0 | 0 | | 50 | 2Q | 40 | 1Q | Continue | Continue | Continue |
| h . HCCC | MIPR | CASCOM | 0 | 0 | | 10 | 2-3Q | 10 | 2-3Q | Continue | Continue | Continue |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

461

| II. Support Cost (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---------------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| Subtotal: | | | 48 | 115 | | 236 | | 412 | | Continue | Continue | Continue |

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--------------------------|------------------------|---|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . JMLS | MIPR | TECOM , ATC, Aberdeen, MD | 40 | 50 | 1-4Q | 0 | | 0 | | 0 | 90 | 90 |
| b . RIB | MIPR | TECOM , ATC, Aberdeen, MD | 60 | 0 | | 0 | | 0 | | 0 | 60 | 60 |
| c . HCCC | MIPR | TECOM , ATC, Aberdeen, MD | 0 | 50 | 1-4Q | 180 | 2-3Q | 500 | 1-4Q | 0 | 730 | 730 |
| d . TSV | MIPR | TECOM, ATC, Aberdeen, MD | 0 | 0 | | 150 | 1-4Q | 170 | 1-4Q | Continue | Continue | Continue |
| e . TSV | MIPR | USATCFE, Ft. Eustis, VA | 0 | 0 | | 0 | | 5500 | 1-4Q | 0 | 5500 | 5500 |
| f . HCCC | MIPR | Joint Interoperable Test Center, Ft. Huachuca, AZ | 0 | 0 | | 20 | 2-3Q | 0 | | 0 | 20 | 20 |
| g . TSV | MIPR | CASCOM | 0 | 0 | | 175 | 1-4Q | 232 | 2-3Q | Continue | Continue | Continue |
| h . TSV | MIPR | TARDEC | 0 | 0 | | 75 | 2-3Q | 150 | 2-3Q | Continue | Continue | Continue |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
461

| III. Test and Evaluation (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| i . HCCC | MIPR | DTC, Aberdeen, MD | 0 | 0 | | 0 | | 1000 | 2-3Q | Continue | Continue | Continue |
| Subtotal: | | | 100 | 100 | | 600 | | 7552 | | Continue | Continue | Continue |

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|-------------------------|------------------------|---|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . LSV | MIPR | PM Army Watercraft Systems , TACOM, Warren, MI | 125 | 0 | | 0 | | 0 | | 0 | 125 | 125 |
| b . JMLS | MIPR | TARDEC, Warren, MI | 287 | 195 | 1-4Q | 0 | | 0 | | 0 | 482 | 482 |
| c . RIB | MIPR | PM Force Projection R&D /TARDEC, Warren, MI | 150 | 0 | | 0 | | 0 | | 0 | 150 | 150 |
| d . HCCC | MIPR | PM Force Projection R&D/TARDEC, TACOM, Warren, MI | 0 | 212 | 1-4Q | 130 | 2-3Q | 155 | 1-4Q | Continue | Continue | Continue |
| e . TSV | MIPR | PM TSV, Warren, MI | 0 | 0 | | 1343 | 1-4Q | 1665 | 1-4Q | Continue | Continue | Continue |
| f . HCCC | MIPR | PM Force Projection , Warren, MI | 0 | 0 | | 30 | 2-3Q | 60 | 2-3Q | Continue | Continue | Continue |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

461

| IV. Management Services (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--|------------------------------|-----------------------------------|-------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|
| g . HCCC | MIPR | AB TECH | 0 | 0 | | 100 | 2-3Q | 150 | 2-4Q | 0 | 250 | 250 |
| | | | | | | | | | | | | |
| Subtotal: | | | 562 | 407 | | 1603 | | 2030 | | Continue | Continue | Continue |
| | | | | | | | | | | | | |
| Project Total Cost: | | | 3763 | 1398 | | 6182 | | 38780 | | Continue | Continue | Continue |

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

| | | | | | | | | | |
|--|-------------------|---------------------|---------------------|--|---------------------|---------------------|---------------------|------------------------------|------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | | | | PE NUMBER AND TITLE 0604804A - Logistics and Engineer Equipment - Eng Dev | | | | PROJECT H01 | |
| COST (In Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
| H01 COMBAT ENGINEER EQ ED | 791 | 2631 | 4422 | 4240 | 4341 | 4771 | 4858 | 0 | 35756 |

A. Mission Description and Budget Item Justification: This project supports the System Development and Demonstration (SDD) of military Construction Equipment such as: Tracked Tractor; Asphalt Equipment; Scrapers and Graders. Many of these systems support the Army's Division Redesign Study (ADRS) to convert National Guard units to Combat Service Support (CSS) units. Lines of Communications (LOC) Bridging SDD efforts prior to FY01 were funded in this H01 project line before being moved to project H02 in this PE. Although many military requirements are available on commercial products, military unique requirements such as speed, cross country mobility, crew protection, paint and transportability (air, sea, rail) result in modifications to commercially available products. SDD is required to reduce the risk associated with this integration before entering into production.

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

FY 2001 Accomplishments:

- 53 Conducted market surveillance for Construction Equipment (CE).
 - 133 Conducted market investigations and update specifications for reprocurments of CE.
 - 605 Supported development of and the revision of CE acquisition documents required prior to milestone "C" decisions.
- Total 791

FY 2002 Planned Program

- 97 Conduct market surveillance for CE.
- 194 Conduct market investigations and update of specifications for reprocurments of CE.
- 590 Support development of and the revision of CE acquisition documents required prior to milestone "C" decisions.
- 500 Perform NDI evaluations and testing for SEE Upgrade Feasibility.
- 100 LOG demo of Interim High Mobility Engineer Excavator (IHMEE).

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)**February 2002**

BUDGET ACTIVITY

5 - Engineering and manufacturing development

PE NUMBER AND TITLE

**0604804A - Logistics and Engineer Equipment - Eng
Dev**

PROJECT

H01**FY 2002 Planned Program (Continued)**

- 1150 Prototype contract and hardware development for Objective High Mobility Engineer Excavator (OHMEE).

Total 2631

FY 2003 Planned Program

- 193 Conduct market surveillance.
- 254 Conduct market investigations and update specifications for reprocurements of CE.
- 245 Support development of and the revision of CE acquisition documents required prior to Milestone "C" decisions.
- 2360 R&D contracts execution for OHMEE.
- 1200 Prototype testing for OHMEE (6 prototypes).
- 170 Skid steer R&D contract and hardware development.

Total 4422

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
H01

| <u>B. Other Program Funding Summary</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>To Compl</u> | <u>Total Cost</u> |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|--------------------------|
| OPA3, R02800, Scraper, Earthmoving 14-18 Cu | 0 | 0 | 0 | 3070 | 8048 | 12951 | 43078 | Continuing | Continuing |
| OPA3, R03801, Grader, Mtzd, Hvy | 0 | 0 | 3854 | 7583 | 9557 | 14878 | 17196 | 8910 | 61978 |
| OPA3, R05900, High Mobility Engineer Excavator (HMEE) | 0 | 4996 | 5014 | 5005 | 8508 | 8526 | 8910 | Continuing | Continuing |
| OPA3, M08100, Plant, Asphalt Mixing | 0 | 1999 | 2006 | 2003 | 1320 | 0 | 0 | 0 | 7328 |
| OPA3, ML5350, Item Less than \$5M (Construction Equipment) | 6575 | 12341 | 12880 | 6445 | 0 | 7646 | 6435 | Continuing | Continuing |

C. Acquisition Strategy: OHMEE - Competitive RDTE followed by competitive procurement.

Construction Equipment- All RDT&E followed by competitive procurement.

| <u>D. Schedule Profile</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Log Demo | | 3Q | | | | | |
| Market Surveillance | 1-4Q |
| Market Investigations | 1-4Q |
| Acquisition documents | 1-4Q |
| OHMEE SDD Contracts | | 3-4Q | 1-4Q | | | | |
| OHMEE Testing | | | 1-4Q | | | | |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev **PROJECT H01**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . PM/Matrix Support | MIPR | TACOM, Warren, MI | 7424 | 628 | 1-4Q | 590 | 1-4Q | 245 | 1-4Q | Continue | Continue | Continue |
| b . TARDEC | In-House | TARDEC, Warren, MI | 540 | 110 | 1-4Q | 194 | 1-4Q | 254 | 1-4Q | Continue | Continue | Continue |
| c . OHMEE SDD Contract | FFP | TBD | 839 | 0 | | 1150 | 3-4Q | 2360 | 1-4Q | 6310 | 10659 | 6310 |
| d . Skid Steer | FFP | TBD | 0 | 0 | | 0 | | 170 | 1-4Q | 0 | 170 | 170 |
| | | | | | | | | | | | | |
| Subtotal: | | | 8803 | 738 | | 1934 | | 3029 | | Continue | Continue | Continue |

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|-------------------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . Studies for Future Capabilities | In House | TARDEC, Warren, MI | 0 | 53 | 1-4Q | 97 | 1-4Q | 193 | 1-4Q | Continue | Continue | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 53 | | 97 | | 193 | | Continue | Continue | Continue |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev **PROJECT**
H01

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . Test and Prep | MIPR | APG, Aberdeen, MD | 1121 | 0 | | 500 | | 1200 | 1-4Q | Continue | Continue | Continue |
| b . Log Demo | | | 0 | 0 | | 100 | 3Q | 0 | | 0 | 100 | 100 |
| Subtotal: | | | 1121 | 0 | | 600 | | 1200 | | Continue | Continue | Continue |

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|-------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |

| | | | | | | | | | | | | |
|----------------------------|--|--|------|-----|--|------|--|------|--|----------|----------|----------|
| Project Total Cost: | | | 9924 | 791 | | 2631 | | 4422 | | Continue | Continue | Continue |
|----------------------------|--|--|------|-----|--|------|--|------|--|----------|----------|----------|

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

| | | | | | | | | | |
|---|-------------------|---------------------|---------------------|---|---------------------|---------------------|---------------------|-----------------------|------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | | | | PE NUMBER AND TITLE 0604804A - Logistics and Engineer Equipment - Eng Dev | | | | PROJECT H02 | |
| COST (In Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
| H02 TACTICAL BRIDGING - ENGINEERING DEVELOPMENT | 618 | 1105 | 1831 | 1979 | 1975 | 2491 | 1989 | 0 | 12320 |

A. Mission Description and Budget Item Justification: This project supports the engineering development and transition to procurement of Objective Force tactical bridge systems. These systems include Line of Communication (LOC) bridges and military tactical bridge site mobility equipment. These systems are needed to meet requirements such as the Anchorage System (AS) for the Ribbon Bridge and Improved Ribbon Bridge (IRB), Access/Egress Roadway System (AE) for bridge approaches, and assessment of the Rapidly Emplaced Bridging System (REBS) for the Interim Brigade Combat Team (IBCT).

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

FY 2001 Accomplishments:

- 100 Conducted market investigation for Anchorage System (AS).
- 518 Conducted a design analysis to assess the merits of current boats using rebuilt boat engines versus more powerful commercially available boats.

Total 618

FY 2002 Planned Program

- 600 Procure representative samples for use in testing Anchorage System.
- 505 Conduct market investigation for Access Egress Roadway System and Line of Communication Bridge.

Total 1105

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
H02

FY 2003 Planned Program

- 631 Perform testing of AS.
- 1200 Perform Operational Testing on the REBS.

Total 1831

| <u>B. Other Program Funding Summary</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>To Compl</u> | <u>Total Cost</u> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-------------------|
| OPA3, M27200 Float Bridge Propulsion | 1924 | 1938 | 6427 | 7007 | 9087 | 6993 | 6984 | Continuing | Continuing |
| OPA3, G82402 Rapidly Emplaced Bridging Sys | 3931 | 4996 | 9993 | 9970 | 9950 | 0 | 0 | Continuing | Continuing |

C. Acquisition Strategy: Not applicable for this item.

| <u>D. Schedule Profile</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| AS Market Investigation complete | 3Q | | | | | | |
| Conduct Boat Design Analysis | 3-4Q | | | | | | |
| Procure AS Representatives Samples | | 3Q | | | | | |
| AE Market Investigation complete | | 3Q | | | | | |
| AS Testing | | | 3Q | | | | |
| REBS Testing | | | 2Q | | | | |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

H02

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|------------------------|------------------------|--|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . AS Samples | SS-FFP | Eisenwerke Kaiserslautern GmbH, Kaiserslautern, GE | 0 | 0 | | 600 | 3Q | 0 | | 0 | 600 | 600 |
| b . PM/Matrix Support | MIPR | TACOM, Warren, MI | 332 | 618 | 3Q | 505 | 3Q | 0 | | 0 | 1455 | 1455 |
| Subtotal: | | | 332 | 618 | | 1105 | | 0 | | 0 | 2055 | 2055 |

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

H02

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . AE | MIPR | APG, Aberdeen, MD | 0 | 0 | | 0 | | 631 | 3Q | 0 | 631 | 631 |
| b . REBS | MIPR | APG, Aberdeen, MD | 0 | 0 | | 0 | | 1200 | 2Q | 0 | 1200 | 1200 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 0 | | 1831 | | 0 | 1831 | 1831 |

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|-------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |

| | | | | | | | | | | | | |
|---------------------|--|--|-----|-----|--|------|--|------|--|---|------|------|
| Project Total Cost: | | | 332 | 618 | | 1105 | | 1831 | | 0 | 3886 | 3886 |
|---------------------|--|--|-----|-----|--|------|--|------|--|---|------|------|

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

| | | |
|---|---|-----------------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | PE NUMBER AND TITLE 0604804A - Logistics and Engineer Equipment - Eng Dev | PROJECT H14 |
|---|---|-----------------------|

| COST (In Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
|---------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| H14 MATERIALS HANDLING EQUIPMENT - ED | 572 | 591 | 1589 | 592 | 590 | 598 | 597 | 0 | 8669 |

A. Mission Description and Budget Item Justification: This project supports development of Material Handling Equipment (MHE) that support Combat Service Support units with MHE for world wide rapid movement of supplies including container handling equipment, forklifts, and other cargo handling related items. Necessary efforts include validating requirements, developing acquisition strategies, developing performance specifications and test and evaluation planning.

This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

- 514 Prepared of program documentation for Non-Developmental Item (NDI) Material Handling Equipment (MHE) procurements.
 - 58 Updated performance specifications for use in upcoming NDI MHE procurements.
- Total 572

FY 2002 Planned Program

- 250 Prototype rebuild of 6K Variable Reach Rough Terrain Forklift Truck (VRRFTLT) for upgrade to 10K forklift.
 - 300 Preparation of solicitation package for All Terrain Lifting Army System (ATLAS) II Prototypes.
 - 41 Market Investigations.
- Total 591

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)**February 2002**

BUDGET ACTIVITY

5 - Engineering and manufacturing development

PE NUMBER AND TITLE

**0604804A - Logistics and Engineer Equipment - Eng
Dev**

PROJECT

H14**FY 2003 Planned Program**

- 350 Programmatic support of ATLAS II.
- 450 Lease of All Terrain Lifting Army System (ATLAS) II.
- 500 Testing of ATLAS II Prototypes.
- 100 Program support of 6K Variable Reach Rough Terrain Forklift Truck (VRRTFLT).
- 100 Testing of rebuilt prototype 6K VRRTFLT.
- 89 Market investigation for future 4K Rough Terrain Forklift Truck (RTFLT) procurement.

Total 1589

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
H14

| <u>B. Other Program Funding Summary</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>To Compl</u> | <u>Total Cost</u> |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|--------------------------|
| RDTE, 0603804.DG14, Logistics Support Equipment, Advance | 182 | 198 | 195 | 195 | 195 | 200 | 200 | Continuing | Continuing |
| OPA3, M41200, Forklift, DE, PT, RT, 50K lbs.(RTCH) | 39664 | 43051 | 49065 | 38189 | 20257 | 68811 | 68678 | Continuing | Continuing |
| OPA3, M41800, All Terrain Lifting Army System (ATLAS) | 30283 | 20916 | 21963 | 23179 | 23289 | 26013 | 32293 | Continuing | Continuing |
| OPA3, X00900, Rough Terrain Container Crane(RTCC) | 2038 | 0 | 0 | 0 | 0 | 0 | 0 | Continuing | Continuing |
| OPA3, ML5365, Items Less Than \$5.0M Material Handling Equipment (MHE) | 3201 | 477 | 495 | 1134 | 2055 | 1398 | 998 | Continuing | Continuing |
| OPA3, M41900, Material Handling Equipment (MHE) Extended Service Program (ESP) | 0 | 1000 | 2304 | 1001 | 1000 | 998 | 998 | Continuing | Continuing |

C. Acquisition Strategy: RDT&E Logistics Support Engineering Equipment - Competitive formal source selection for prototype equipment. Rough Terrain Container Handler (RTCH) - Competitive procurement for prototype and sole source for production using NDI integration of commercial components. ATLAS - The current contract was competitive award; FY01 new start to be sole source. RTCC - Sole source procurement to original manufacturer. Items less than \$5M - Competitive procurements for various MHEs.

| <u>D. Schedule Profile</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Testing of development systems | | | 2-4Q | 2-4Q | | | |
| * Milestone Completed | | | | | | | |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev **PROJECT H14**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--------------------------|------------------------|---|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . PM/Matrix Support | In-House | TACOM, Warren, MI | 99 | 322 | 1-4Q | 156 | 1-4Q | 350 | 1-3Q | Continue | Continue | Continue |
| b . TARDEC | In-House | TARDEC, Warren, MI | 0 | 250 | 1-4Q | 185 | 1-4Q | 189 | 1-4Q | Continue | Continue | Continue |
| c . ATLAS Contract | SSFP | TBD | 0 | 0 | | 0 | | 450 | 2Q | 0 | 450 | 450 |
| d . 6K VRRFTFLT Contract | SSFP | TRAX International, Port Washington, WI | 0 | 0 | | 250 | 3Q | 0 | | 0 | 250 | 250 |
| Subtotal: | | | 99 | 572 | | 591 | | 989 | | Continue | Continue | Continue |

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev **PROJECT**
H14

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . ATLAS | MIPR | APG, Aberdeen, MD | 0 | 0 | | 0 | | 500 | 2-4Q | Continue | Continue | Continue |
| b . 6K VRRTFLT | MIPR | APG, Aberdeen, MD | 0 | 0 | | 0 | | 100 | 3-4Q | Continue | Continue | Continue |
| Subtotal: | | | 0 | 0 | | 0 | | 600 | | Continue | Continue | Continue |

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|-------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |

| | | | | | | | | | | | | |
|---------------------|--|--|----|-----|--|-----|--|------|--|----------|----------|----------|
| Project Total Cost: | | | 99 | 572 | | 591 | | 1589 | | Continue | Continue | Continue |
|---------------------|--|--|----|-----|--|-----|--|------|--|----------|----------|----------|

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

| | | | | | | | | | |
|---|-------------------|---------------------|---------------------|---|---------------------|---------------------|---------------------|-----------------------|------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | | | | PE NUMBER AND TITLE 0604804A - Logistics and Engineer Equipment - Eng Dev | | | | PROJECT L39 | |
| COST (In Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
| L39 ENVIRONMENTAL EQUIPMENT - ED | 4358 | 992 | 1083 | 1505 | 1474 | 1524 | 1522 | Continuing | Continuing |

A. Mission Description and Budget Item Justification: Project develops for transition to procurement Large Capacity Field Heater (LCFH) and Improved Environmental Control Units (IECU) that do not use ozone depleting refrigerants.

These systems support the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

Note: Water Purification System Development after FY00 is reflected in Project L41.

FY 2001 Accomplishments:

- 44 Completed MS II review for three horizontal IECU configurations (9k, 18k, & 36kBTUH).
- 1349 Develop designs for three horizontal Improved Environmental Control Unit (IECU) configurations.
- 720 Fabricate 36 (12 each 9k, 18k, & 36kBTUH) Engineering Development Models of three horizontal IECU configurations for Production Quality Testing and User Evaluation.
- 1165 Initiate Production Qualification Testing (PQT) of IECU Engineering Development Models.
- 700 Engineering and management support of IECU Program.
- 150 Complete MS B documentation for the Large Capacity Field Heater (LCFH) and conduct MS B program review.
- 230 Engineering and management support of for LCFH Program.

Total 4358

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY

5 - Engineering and manufacturing development

PE NUMBER AND TITLE

**0604804A - Logistics and Engineer Equipment - Eng
Dev**

PROJECT

L39

FY 2002 Planned Program

- 300 Engineering and management support for LCFH Program.
- 400 Engineering and management support for IECU Program.
- 100 Complete PQT and User Evaluation of IECU Engineering Development Models.
- 192 Develop design for LCFH.

Total 992

FY 2003 Planned Program

- 140 Prepare documentation for and conduct MS C program review for LCFH Program.
- 276 Conduct PQT and IOT&E of LCFH engineering development models.
- 80 Support IOT&E of IECU engineering development models.
- 147 Engineering & management support for LCFH Program.
- 280 Engineering & management support for IECU Program.
- 160 Prepare documentation for 9k, 18k, & 36kBTUH Horizontal IECU configurations, and conduct Milestone III program review.

Total 1083

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
L39

| <u>B. Other Program Funding Summary</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>To Compl</u> | <u>Total Cost</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-------------------|
| OPA3, MF9000, Environmental Control Units (ECU) | 6290 | 5047 | 14824 | 13675 | 18364 | 9078 | 8141 | Continuing | Continuing |

C. Acquisition Strategy: Development and transition to competitive procurement for all items under this project.

| <u>D. Schedule Profile</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| MS II for IECU | 1Q | | | | | | |
| Release contract Request For Proposals (RFP) for IECU | 2Q | | | | | | |
| Award Engineering & Manufacturing Development (EMD) contract for IECU | 4Q | | | | | | |
| Complete Testing for IECU | | | 2Q | | | | |
| MS III/Type Classification for IECU | | | 2Q | | | | |
| LCFH - MS B | | 1Q | | | | | |
| LCFH - SDD Contract Award | | | 3Q | | | | |
| LCFH - Complete SDD Models | | | 1Q | | | | |
| LCFH - Complete PQT and IOT&E | | | 3Q | | | | |
| LCFH - Conduct MS C | | | 4Q | | | | |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

L39

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|-------------------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . Large Capacity Field Heater SDD | C-CPFF | TBD | 3038 | 0 | | 203 | 1Q | 0 | | 0 | 3241 | 3241 |
| b . LCFH Engr | In-house | US Army CECOM, Ft. Belvoir, VA | 99 | 359 | 1-4Q | 170 | 1-4Q | 140 | 1-4Q | Continue | Continue | Continue |
| c . Engr. IECU SDD | In-house | US Army CECOM, Ft. Belvoir, VA | 266 | 474 | 1-4Q | 240 | 1-4Q | 195 | 1-3Q | Continue | Continue | Continue |
| d . IECU SDD | C-CPFF | TBD | 0 | 2014 | 2Q | 0 | 1Q | 0 | | 0 | 2014 | 2014 |
| Subtotal: | | | 3403 | 2847 | | 613 | | 335 | | Continue | Continue | Continue |

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--------------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . Engr & Mgt Support of IECU | MIPR | US Army CECOM, Ft. Belvoir, VA | 0 | 20 | 3Q | 0 | | 0 | | 0 | 20 | 20 |
| Subtotal: | | | 0 | 20 | | 0 | | 0 | | 0 | 20 | 20 |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

L39

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . PQT (Large Capacity Field Heater) | C-CPFF | TBD | 0 | 0 | | 0 | 1Q | 130 | | 0 | 130 | 130 |
| b . IOT&E (Large Capacity Field Heater) | MIPR | ATEC, Alexandria, VA | 0 | 0 | | 0 | | 76 | 1-4Q | 0 | 76 | 76 |
| c . Engineering tests of IECU prototypes | C-CPFF | Various | 97 | 1115 | 3Q | 89 | 1Q | 0 | | 0 | 1301 | 1301 |
| d . User Evaluation of IECU | MIPR | ATEC, Alexandria, VA | 0 | 0 | | 20 | 1-4Q | 115 | 1-4Q | 0 | 135 | 135 |
| | | | | | | | | | | | | |
| Subtotal: | | | 97 | 1115 | | 109 | | 321 | | 0 | 1642 | 1642 |
| | | | | | | | | | | | | |
| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
| a . Large Capacity Field Heater management | In-house | US Army CECOM, Ft Belvoir, VA | 43 | 140 | 1-4Q | 130 | 1-4Q | 147 | 1-4Q | Continue | Continue | Continue |
| b . IECU | In-house | US Army CECOM, Ft Belvoir, VA | 38 | 236 | 1-4Q | 140 | 1-4Q | 280 | 1-4Q | Continue | Continue | Continue |
| | | | | | | | | | | | | |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

L39

| IV. Management Services (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--|------------------------------|-----------------------------------|-------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|
| Subtotal: | | | 81 | 376 | | 270 | | 427 | | Continue | Continue | Continue |
| | | | | | | | | | | | | |
| Project Total Cost: | | | 3581 | 4358 | | 992 | | 1083 | | Continue | Continue | Continue |

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

| | | | | | | | | | |
|---|-------------------|---------------------|---------------------|---|---------------------|---------------------|---------------------|-----------------------|------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | | | | PE NUMBER AND TITLE 0604804A - Logistics and Engineer Equipment - Eng Dev | | | | PROJECT L41 | |
| COST (In Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
| L41 WATER AND PETROLEUM DISTRIBUTION - ED | 6058 | 3730 | 9763 | 4654 | 4079 | 5510 | 5497 | Continuing | Continuing |

A. Mission Description and Budget Item Justification: The Army has the mission to supply fuel for all land-based forces, including the Marines and the Air Force. This developmental program provides the capability to perform battlefield sustainment operations, including receiving and transferring petroleum from trucks, ships, and permanent and temporary storage facilities; moving petroleum between storage to and within corps and division areas; quality surveillance testing; and dispensing in support of tactical operations, including rapid refueling of airfields. These R&D efforts support the development and enhancement of rapidly deployed Petroleum and Water equipment which enables the Army to achieve its transformation vision by providing it with the means to be highly mobile and self sustaining in very hostile theaters of operations.

These systems support the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

- 1880 Continued testing/evaluation of Petroleum Quality Analysis System (PQAS) System Development & Demonstration (SDD) prototypes.
- 302 Established system performance requirements and developed purchase description for Petroleum Quality Surveillance Lab (PQSL).
- 1686 Awarded Rapidly Installed Fuel Transfer System (RIFTS) command and control module and high pressure hose contracts.
- 100 Continued program management and general support.
- 1590 Continued 1500 Gallons Per Hour (GPH) Tactical Water Purification System (TWPS) SDD effort.
- 200 Conducted investigation of Nuclear, Biological and Chemical (NBC) contamination removal technology for water purification systems.
- 300 Evaluated Pre-Planned Product Improvements (P3I) for water purification systems.

Total 6058

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)**February 2002**

BUDGET ACTIVITY

5 - Engineering and manufacturing development

PE NUMBER AND TITLE

**0604804A - Logistics and Engineer Equipment - Eng
Dev**

PROJECT

L41**FY 2002 Planned Program**

- 300 Evaluate commercial water treatment components for Pre-Planned Product Improvements (P3I) for water purification systems.
- 318 Complete PQAS testing and conduct Milestone C IPR.
- 121 Develop PQSL program management documents for milestone decision and prepare Request For Proposal (RFP).
- 1328 Initiate SDD contract for RIFTS.
- 264 Program management and support.
- 399 Develop Load Handling System (LHS) Modular Fuel Farm (LMFF) prototype.
- 125 Complete 1500 TWPS SDD effort.
- 875 Conduct 1500 TWPS Operational Test (OT).

Total 3730

FY 2003 Planned Program

- 300 Conduct PQAS P3I.
- 942 Conduct PQSL Milestone decision In Process Review (IPR).
- 7221 RIFTS test and evaluation.
- 300 Program management and support.
- 1000 Complete LMFF prototype fabrication and initiate developmental testing.

Total 9763

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

| | | |
|---|---|-----------------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | PE NUMBER AND TITLE 0604804A - Logistics and Engineer Equipment - Eng Dev | PROJECT L41 |
|---|---|-----------------------|

| <u>B. Other Program Funding Summary</u> | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | To Compl | Total Cost |
|--|---------|---------|---------|---------|---------|---------|---------|------------|------------|
| RDTE, 0603804/K41, POL Distribution Equipment Advanced Development | 2152 | 2304 | 7871 | 3885 | 3523 | 2912 | 2904 | Continuing | Continuing |
| OPA 3, MB6400, Quality Surveillance Equipment | 2876 | 7641 | 7522 | 5326 | 4785 | 5208 | 4989 | Continuing | Continuing |
| OPA 3, R05600, Water Purification Systems | 30383 | 39016 | 18204 | 21912 | 20151 | 0 | 0 | Continuing | Continuing |

C. Acquisition Strategy: Development of and transition to competitive procurement for all items under this project.

| <u>D. Schedule Profile</u> | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 |
|---|---------|---------|---------|---------|---------|---------|---------|
| Awarded contract for the RIFTs. | 2Q | | | | | | |
| Evaluate P3I for water purification systems | 1-4Q | 1-4Q | | | | | |
| Complete 1500 TWPS SDD contract, PQT, and conduct special Low Rate Initial Production (LRIP) IPR. | 1-4Q | 1-2Q | | | | | |
| Complete Developmental Test/Operational Test (DT/OT) of pre-production PQAS prototypes. | | 4Q | | | | | |
| Conduct PQAS Milestone C IPR. | | 4Q | | | | | |
| Award command & control module and hose increment for RIFTs. Test & Evaluate. | 4Q | | | | | | |
| Complete PQAS Initial Operational Test & Evaluation (IOT&E) and materiel release. | | | 3Q | | | | |
| SDD contract, test, and evaluate for RIFTs. | | 1-2Q | 1-4Q | | | | |
| Conduct PQSL Milestone B IPR. | | 4Q | | | | | |
| Award PQSL contract and develop prototypes. | | | 1-4Q | | | | |
| Conduct TWPS IOT&E | | 4Q | 1Q | | | | |
| Perform alternative of analysis of water generation unti. | | 3-4Q | 1Q | | | | |
| Continue Development of LMFF | | 1-4Q | 1-4Q | | | | |
| Develop LMFF Prototypes | | 1-2Q | | | | | |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
L41

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|------------------------|--------------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . PQAS | In-House | TARDEC, Warren, MI | 155 | 477 | 2Q | 216 | 2Q | 100 | 2Q | Continue | Continue | Continue |
| b . PQAS | MIPR | Rock Island Arsenal, Rock Island, IL | 1684 | 990 | 2Q | 0 | | 0 | | 0 | 2674 | 2674 |
| c . PQSL | CFP | TBD | 0 | 0 | | 0 | | 742 | 2Q | Continue | Continue | Continue |
| d . PQSL | In-House | TARDEC, Warren, MI | 0 | 162 | 1Q | 66 | 1Q | 100 | 1Q | Continue | Continue | Continue |
| e . RIFTS | In-House | TARDEC, Warren, MI | 150 | 131 | 1Q | 200 | 1Q | 200 | 1Q | Continue | Continue | Continue |
| f . RIFTS | C-CPFF | Various | 1793 | 1555 | 4Q | 628 | 2Q | 6021 | 2Q | Continue | Continue | Continue |
| g . 1500 GPH TWPS | In-House | TARDEC, Warren, MI | 0 | 335 | 2Q | 30 | 2Q | 0 | | 0 | 365 | 365 |
| h . 1500 GPH TWPS hardware | C-CPFF | SFA, Inc, Frederick, MD | 3325 | 915 | 2Q | 0 | | 0 | | 0 | 4240 | 4240 |
| i . Water Purification P31 | In-House | TARDEC, Warren, MI | 0 | 150 | 2Q | 40 | 2Q | 0 | | 0 | 190 | 190 |
| j . Water Purification P31 | Purchase Orders | TBD | 0 | 0 | | 100 | 2Q | 0 | | 0 | 100 | 100 |
| k . LMFF | C-CPFF | TBD | 0 | 0 | | 300 | 2Q | 750 | 2Q | Continue | Continue | Continue |
| l . LMFF | In-House | TARDEC, Warren, MI | 0 | 0 | | 99 | 1Q | 100 | 1Q | Continue | Continue | Continue |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

L41

| I. Product Development (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---------------------------------------|------------------------------|-----------------------------------|-------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|
| | | | 7107 | 4715 | | 1679 | | 8013 | | Continue | Continue | Continue |
| Subtotal: | | | | | | | | | | | | |

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|------------------------------|-----------------------------------|-------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|---------------------|---------------|--------------------------------|
| a . PQAS | In-House | TACOM, Warren, MI | 0 | 90 | 2Q | 52 | 2Q | 0 | | 0 | 142 | 142 |
| b . PQSL | In-House | TACOM, Warren, MI | 0 | 0 | | 40 | 2Q | 50 | 1-2Q | Continue | 90 | 90 |
| c . Water Purification P3I | MIPR | CHPPM, APG, MD | 0 | 0 | | 25 | 2Q | 0 | | 0 | 25 | 25 |
| d . Water Purification P3I | In-House | TACOM, Warren, MI | 0 | 0 | | 50 | 1Q | 0 | | 0 | 50 | 50 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 90 | | 167 | | 50 | | Continue | 307 | 307 |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
L41

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . PQAS DT/OT | MIPR | TECOM, Aberdeen, MD | 175 | 323 | 2Q | 0 | | 0 | | 0 | 498 | 498 |
| b . PQAS | MIPR | APG, Aberdeen, MD | 0 | 0 | | 50 | 2Q | 0 | | 0 | 50 | 50 |
| c . PQAS IOT&E | MIPR | TEXCOM, Ft Hood, Texas | 0 | 0 | | 0 | | 200 | 1Q | Continue | Continue | Continue |
| d . RIFTS | MIPR | TECOM, Aberdeen, MD | 0 | 0 | | 500 | 2Q | 1000 | 2Q | Continue | Continue | Continue |
| e . 1500 GPH TWPS | MIPR | NFESC, Port Huaneme, CA | 0 | 340 | 2Q | 0 | | 0 | | 0 | 340 | 340 |
| f . Water Purification P3I | In-House | TARDEC, Warren, MI | 0 | 150 | 2Q | 50 | 1Q | 0 | | 0 | 200 | 200 |
| g . Water Purification P3I | MIPR | Dugway PG, Dugway, MD | 0 | 200 | 3Q | 0 | | 0 | | 0 | 200 | 200 |
| h . Water Purification P3I | MIPR | NFESC, Port Hueneme, CA | 0 | 0 | | 35 | 1Q | 0 | | 0 | 35 | 35 |
| i . 1500 GPH TWPS | MIPR | ATC, APG, MD | 0 | 0 | | 35 | 2Q | 0 | | 0 | 35 | 35 |
| j . 1500 GPH TWPS | MIPR | TEXCOM, Ft Hood, Texas | 0 | 0 | | 935 | 3Q | 0 | | 0 | 935 | 935 |
| k . LMFF | MIPR | ATEC, Alexandria, VA | 0 | 0 | | 0 | | 150 | 2Q | Continue | Continue | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 175 | 1013 | | 1605 | | 1350 | | Continue | Continue | Continue |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604804A - Logistics and Engineer Equipment - Eng Dev **PROJECT**
L41

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--------------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . PQSL | In-House | TARDEC, Warren, MI | 0 | 140 | 2Q | 15 | 1Q | 50 | 1Q | Continue | 205 | Continue |
| b . Program Management Support | In-House | TACOM, Warren, MI | 341 | 100 | 1Q | 264 | 1Q | 300 | 2Q | Continue | 1005 | Continue |
| Subtotal: | | | 341 | 240 | | 279 | | 350 | | Continue | 1210 | Continue |

Remarks: Not Applicable

| | | | | | | | | | | | | |
|---------------------|--|--|------|------|--|------|--|------|--|----------|----------|----------|
| Project Total Cost: | | | 7623 | 6058 | | 3730 | | 9763 | | Continue | Continue | Continue |
|---------------------|--|--|------|------|--|------|--|------|--|----------|----------|----------|

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

| | | |
|---|---|-----------------------|
| BUDGET ACTIVITY 5 - Engineering and manufacturing development | PE NUMBER AND TITLE 0604804A - Logistics and Engineer Equipment - Eng Dev | PROJECT L43 |
|---|---|-----------------------|

| COST (In Thousands) | FY 2001 Actual | FY 2002 Estimate | FY 2003 Estimate | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | Cost to Complete | Total Cost |
|-------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| L43 ENGINEER SUPPORT EQUIPMENT - ED | 556 | 848 | 2454 | 1247 | 1184 | 1207 | 1228 | 0 | 8958 |

A. Mission Description and Budget Item Justification: Project develops Engineer Support Equipment (ESE) such as small boats, diving equipment, well drilling modules, woodworking shops, fire trucks, tool outfits, large power generator plants, electrical distribution systems, and floodlights which are used for field operations in support of the Objective Force. In FY03, this project also develops Maintenance equipment associated with Sets, Kits, Outfits and Tools (SKOTs).

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

FY 2001 Accomplishments:

- 93 Conducted market investigation, develop performance specifications and conduct preproduction award effort for diving equipment.
- 319 Development of the engineering and prototype models for large generator sets and associated equipment.
- 144 Conducted market investigation, develop performance specifications and conduct preproduction award effort for well drilling module.

Total 556

FY 2002 Planned Program

- 104 Conduct market investigation, develop performance specifications and conduct preproduction award effort for diving equipment.
- 744 Award SDD contract for well drilling module.

Total 848

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)**February 2002**

BUDGET ACTIVITY

5 - Engineering and manufacturing development

PE NUMBER AND TITLE

**0604804A - Logistics and Engineer Equipment - Eng
Dev**

PROJECT

L43**FY 2003 Planned Program**

- 520 Conduct market investigation, develop performance specifications and conduct preproduction award effort for diving equipment.
- 1000 Conduct prototype testing of well drilling module.
- 160 Prepare Production Solicitation for well drilling module.
- 180 Conduct market investigation, engineering effort, and develop performance specifications for woodworking shop.
- 220 Fabrication of prototype for woodworking shop.
- 174 Conduct market investigation, engineering effort, and develop performance specifications for maintenance equipment (tools).
- 140 Conduct market investigation, engineering effort, and develop performance specifications for Organizational / General Purpose Shop Set.

- 60 Conduct Life Cycle Market Investigations for Engineer Support Equipment (ESE) Sets, Kits, Outfits and Tools (SKOTs).

Total 2454

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
L43

| <u>B. Other Program Funding Summary</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> | <u>To Compl</u> | <u>Total Cost</u> |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|--------------------------|
| OPA 3, MA8050, Items Less than \$5.0M (CSS-Equipment) | 1892 | 3973 | 0 | 1551 | 10674 | 0 | 0 | 0 | 22418 |
| OPA 3, MA8800, Items Less than \$5.0M (Generator Equipment) | 0 | 675 | 0 | 839 | 640 | 0 | 0 | 0 | 2154 |
| OPA 3, M56400, Generator Set, DE, 750KW 60HZ | 0 | 7999 | 8768 | 10713 | 10775 | 3996 | 0 | 0 | 42251 |
| OPA 3, ML5325, Items Less than \$5.0M (Engineering Support Equipment) | 1892 | 0 | 7918 | 8693 | 8326 | 8369 | 6671 | Continuing | Continuing |

C. Acquisition Strategy: SDD and transition to production.

| <u>D. Schedule Profile</u> | <u>FY 2001</u> | <u>FY 2002</u> | <u>FY 2003</u> | <u>FY 2004</u> | <u>FY 2005</u> | <u>FY 2006</u> | <u>FY 2007</u> |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Development of prototype large generator sets | 3Q | | | | | | |
| Conduct market investigation for well drilling module | 4Q | | | | | | |
| Award SDD contract for well drilling module | | 3Q | | | | | |
| Conduct testing for well drilling module | | | 3Q | | | | |
| Prepare solicitation for well drilling module | | | 4Q | | | | |
| Conduct market investigation and testing for diving equipment | 1-4Q | 1-4Q | 2Q | | | | |
| Conduct market investigation for woodworking shop | | | 1-2Q | | | | |
| Fabrication of prototype of woodworking shop | | | 2-4Q | | | | |
| Conduct Life Cycle Market Investigations for ESE SKOTs | | | 1-4Q | | | | |
| Conduct Market investigation for Organizational / General Purpose Shop Set | | | 1-4Q | | | | |
| Conduct Market investigation for maintenance equipment (Tools) | | | 1-4Q | | | | |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
L43

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|--|------------------------|--------------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . Diving equipment product development | IN-HOUSE | Rock Island Arsenal, Rock Island, IL | 52 | 93 | 1Q | 104 | 1Q | 520 | 1Q | Continue | Continue | Continue |
| b . Generator production development | IN-HOUSE | CECOM, Ft Belvoir, VA | 0 | 319 | 2Q | 0 | | 0 | | 0 | 319 | 319 |
| c . Well drilling module product development | IN-HOUSE | TACOM, Warren, MI | 0 | 144 | 1Q | 0 | | 160 | 4Q | Continue | Continue | Continue |
| d . Well drilling SDD contract | C-CPFF | TBD | 0 | 0 | | 744 | 3Q | 0 | | 0 | 744 | 744 |
| e . Woodworking shop product development | IN-HOUSE | Rock Island Arsenal, Rock Island, IL | 0 | 0 | | 0 | | 400 | 1-4Q | 0 | 400 | 400 |
| f . Maintenance Equipment (Tools) | IN-HOUSE | Rock Island Arsenal, Rock Island, IL | 0 | 0 | | 0 | | 174 | 1-4Q | Continue | Continue | Continue |
| g . Organizational / General Purpose Shop Set | IN-HOUSE | Rock Island Arsenal, Rock Island, IL | 0 | 0 | | 0 | | 140 | 1-4Q | Continue | Continue | Continue |
| h . Life Cycle Market Investigations for ESE SKOTs | IN-HOUSE | Rock Island Arsenal, Rock Island, IL | 0 | 0 | | 0 | | 60 | 1-4Q | Continue | Continue | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 52 | 556 | | 848 | | 1454 | | Continue | Continue | Continue |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - Engineering and manufacturing development

0604804A - Logistics and Engineer Equipment - Eng Dev

L43

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| Subtotal: | | | | | | | | | | | | |

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| a . Well drilling module testing | MIPR | APG, Aberdeen, MD | 0 | 0 | | 0 | | 1000 | 3Q | Continue | Continue | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 0 | | 1000 | | Continue | Continue | Continue |

ARMY RDT&E COST ANALYSIS(R-3)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

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

PROJECT
L43

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2001 Cost | FY 2001 Award Date | FY 2002 Cost | FY 2002 Award Date | FY 2003 Cost | FY 2003 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|-------------------------|------------------------|--------------------------------|----------------|--------------|--------------------|--------------|--------------------|--------------|--------------------|------------------|------------|--------------------------|
| | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| Subtotal: | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---------------------|--|--|----|-----|--|-----|--|------|--|----------|----------|----------|
| Project Total Cost: | | | 52 | 556 | | 848 | | 2454 | | Continue | Continue | Continue |
|---------------------|--|--|----|-----|--|-----|--|------|--|----------|----------|----------|