ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY	PE NUMBER AND TITLE
3 - Advanced technology development	**0603734A - Military Engineering Advanced Technology**

COST (In Thousands)		FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
Total Program Element (PE) Cost		13643	13106	3865	5358	6006	6149	6290
T08	COMBAT ENG SYSTEMS	2735	3396	3865	5358	6006	6149	6290
T13	STATIONARY POWER & ENERGY TECH DEMONSTRATIONS (CA)	10908	9710	0	0	0	0	0

A. Mission Description and Budget Item Justification: The objective of this program element is to mature and demonstrate advanced military engineering technologies that support the Future Force, and where feasible, exploits opportunities to enhance Current Force capabilities. Technologies demonstrated within this program element are transitioned from program element 0602784A (Military Engineering Technology). Joint Rapid Airfield Construction (JRAC) technologies will support the expedient upgrading of existing airfields and rapid construction of new contingency airfields. Current construction technologies take too long. JRAC's terrain based site selection algorithms, computer assisted construction equipment, and fast curing soil stabilization chemical technologies support Army force projection goals. The time required to double the throughput of a minimal airfield will be reduced from four to two days. The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and the Defense Technology Area Plan (DTAP). Work in this program element is performed by the U.S. Army Engineer Research and Development Center that is headquartered at Vicksburg, Mississippi.

B. Program Change Summary	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	13696	3441	3926
Current Budget (FY 2005 PB)	13643	13106	3865
Total Adjustments	-53	9665	-61
Congressional program reductions		-116	
Congressional rescissions			
Congressional increases		9830	
Reprogrammings	-53	-49	
SBIR/STTR Transfer			
Adjustments to Budget Years			-61

Significant Change Explanation.
FY04 - Four FY04 Congressional adds totaling $9830 were added to this PE.

FY04 Congressional Adds with no R2-As:
($9427) Stationary Power and Energy Technology Demonstrations, Project T13:

($1679) Canola Oil Fuel Center, Project T13: The purpose of this one year Congressional add is to test and assess fuel systems for military and civil stationary power applications. No additional funding is required to complete this project.

($2685) Solid Oxide Fuel Cell Development, Project T13: The purpose of this one year Congressional add is to test and assess fuel systems for military and civil stationary power applications. No additional funding is required to complete this project.

($3433) Fuel Cell Hybrid Generating System with Ramgen Jet Technology, Project T13: The purpose of this one year Congressional add is to test and assess fuel systems for military and civil stationary power applications. No additional funding is required to complete this project.

($1630) Fuel Cell Integration with Fuel-Flexible Infrastructure, Project T13: The purpose of this one year Congressional add is to test and assess fuel systems for military and civil stationary power applications. No additional funding is required to complete this project.

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

February 2004

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
3 - Advanced technology development	**0603734A - Military Engineering Advanced Technology**	**T08**

COST (In Thousands)		FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
T08	COMBAT ENG SYSTEMS	2735	3396	3865	5358	6006	6149	6290

A. Mission Description and Budget Item Justification: The objective of this project is to mature and demonstrate advanced military engineering technologies that support the Future Force and, where feasible, exploits opportunities to enhance Current Force capabilities. Technologies demonstrated within this project are transitioned from program element 0602784A (Military Engineering Technology), projects T40 and T42. Joint Rapid Airfield Construction (JRAC) technologies will support the expedient upgrading of existing airfields and rapid construction of new contingency airfields. Current construction technologies take too long. JRAC's terrain based site selection algorithms, computer assisted construction equipment, and fast curing soil stabilization chemical technologies support Army force projection goals. The time required to double the throughput of a minimal airfield will be reduced from four to two days. The cited work is consistent with Strategic Planning Guidance, the Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and the Defense Technology Area Plan (DTAP). Work in this project is performed by the U.S. Army Engineer Research and Development Center that is headquartered at Vicksburg, Mississippi.

Accomplishments/Planned Program	FY 2003	FY 2004	FY 2005
Joint Rapid Airfield Construction – In FY03, selected promising new construction technologies to enhance airfield construction productivity and determined stabilizer technologies suitable for rapid stabilization of unsurfaced airfields. In FY04, demonstrate advanced airfield construction technologies that increase productivity and reduce pavement repair time and soil stabilization technologies for C-130 operations. In FY05, integrate advanced performance models and terrain data in airfield site selection.	2735	3297	3865
Small Business Innovative Research/Small Business Technology Transfer Programs	0	99	0
Totals	2735	3396	3865