

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

February 2002

BUDGET ACTIVITY  
**6 - Management support**

PE NUMBER AND TITLE  
**0605326A - Concepts Experimentation**

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	18179	31501	22627	22536	22460	23695	22247	Continuing	Continuing
308 CONCEPTS EXPERIMENTATION	14578	14155	9354	9306	9265	10952	14877	Continuing	Continuing
312 ARMY/JOINT EXPERIMENTATION	3601	16353	9976	9945	9920	9471	4117	Continuing	Continuing
33B SOLDIER-CENTERED ANALYSES FOR THE OBJECTIVE FORCE	0	993	3297	3285	3275	3272	3253	0	17375

**A. Mission Description and Budget Item Justification:** The Concept Experimentation Program (project 308) provides the analytical rigor required to refine objective force concepts as well as underpin evidence for requirements of potential Objective Force systems. Army Experimentation funds the Army Transformation Experimentation Campaign Plan (ATECP) in support of transformation to the Objective Force (OF). The Army must conduct its own concept development and experimentation to fill its Title X core competencies as part of a DoD (Joint Force) transforming to meet Joint Vision 2020 capabilities and integrate this process with the Joint concept development and experimentation (JCD&E) process, including Army participation in major Joint experiments directed by DoD, Congressional language and the QDR. This program supports development of architecture products and experimental initiatives that develop OF capabilities and meet requirements for OF joint interoperability.

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<u><b>B. Program Change Summary</b></u>	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2002 PB)	18738	33067	27381
Appropriated Value	18910	31767	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reduction	0	-266	0
b. SBIR/STTR	-558	0	0
c. Omnibus or Other Above Threshold Reductions	0	0	0
d. Below Threshold Reprogramming	0	0	0
c. Rescission	-173	0	0
Adjustments to Budget Years Since FY2002 PB	0	0	-4754
Current Budget Submit (FY 2003 PB )	18179	31501	22627

Change Summary Explanation: Funding - FY 2003: Funds were realigned in support of higher Army priorities (-4754).

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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
308 CONCEPTS EXPERIMENTATION	14578	14155	9354	9306	9265	10952	14877	Continuing	Continuing

**A. Mission Description and Budget Item Justification:** The Concept Experimentation Program (CEP) is a key innovative tool which provides TRADOC battle labs and schools the ability to develop and evaluate emerging warfighting concepts. Program provides the analytical rigor required to refine Objective Force concepts as well as underpin evidence for requirements of potential objective force systems. As the Army moves toward the Objective Force, the critical task of designing the force around information requires major investment in information-age capabilities. Constructive, virtual, and live simulations are used to examine warfighting concepts across Doctrine, Training, Leader Development, Organization, Materiel and Soldiers (DTLOMS) domains. They cover all aspects of command and control, lethality, survivability, and tempo and are essential to technology insertion in future Army systems and force structure.

**FY 2001 Accomplishments:**

- 3205 Mounted Maneuver Battle Lab (MMBL) Experimentation (Congressional Add)
- 445 Objective Communications Support for Reconnaissance, Surveillance and Target Acquisition.
- 375 Mobility Enhancement to Support Interim Brigade Combat Teams Communications and Tactical Operations Center Networks
- 130 Secure Wireless Local Area Network (LAN) for Brigade Combat Teams
- 500 Future Combat Command and Control Reengineering
- 550 Information Support Common Operational Picture Overlay - Information Operations and Management Information
- 113 Anticipatory Logistics
- 300 Advanced Planning System
- 450 Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Aviation Sensors and Communications Relay Mix Study
- 249 Concept of Employment for HEMTT LHS Petroleum Tank Racks
- 100 Ordnance skill consolidation
- 730 Chemical And Biological Cooperation Detection

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PE NUMBER AND TITLE

PROJECT

**6 - Management support****0605326A - Concepts Experimentation****308****FY 2001 Accomplishments: (Continued)**

- 330 Multi-purpose Aerial Delivery System (M-PADS) Analysis
- 450 Future Fires Command and Control
- 475 Striker II Sensor System Concept
- 760 Discretionary funding for Battle Lab Directors to quickly evaluate emerging technology.
- 815 Support for Joint Warfighting Exercise Millennium Challenge 02
- 135 Urban Future Infantry Combat Command and Control
- 251 Distribution Management Transformation
- 4215 Battle Command on the Move

Total 14578

**FY 2002 Planned Program**

- 2940 Unit of Action
- 686 Unit of Action Intelligence, Surveillance and Reconnaissance (ISR) Requirements
- 1114 Objective Force sustainment
- 686 Battle Commander's Cell
- 1029 Unit of Employment/Unit of Action Shaping the Battlespace
- 3500 Mounted Maneuver Battle Lab Experimentation to fund Cooperative and Collaborative Research Program with Kentucky Universities
- 4200 Acquisition of commercial licenses and integration support for commercial geospatial distributed data visualization and management network at the Battle Command Battle Lab at Ft. Huachuca

Total 14155

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PROJECT

**308****FY 2003 Planned Program**

- 9354 Concept experimentation to be determined by September 2002 CEP Schedule and Review Committee.

Total 9354

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<b>BUDGET ACTIVITY</b> <b>6 - Management support</b>	<b>PE NUMBER AND TITLE</b> <b>0605326A - Concepts Experimentation</b>						<b>PROJECT</b> <b>312</b>		
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
312 ARMY/JOINT EXPERIMENTATION	3601	16353	9976	9945	9920	9471	4117	Continuing	Continuing

**A. Mission Description and Budget Item Justification:** The mission of the Army Transformation Experimentation Campaign Plan (ATECP) is to support the Army Transformation Campaign Plan by integrating Objective Force development across the Army's domains of Doctrine, Training, Leader Development, Organization, Materiel and Soldiers (DTLOMS), integrating Service experiments into, Congressionally mandated, Joint Experimentation, and increase the Army's capabilities for dominant maneuver and decisive operations while maintaining core proficiencies in those areas. ATECP objectives are: facilitate Objective Force development by providing an experimental venue to assess key issues for Objective Force Operational and Organizational concepts and future operational capabilities development, provide insights across all DTLOMS to soldiers as the Army transforms, and shape and support Joint Experimentation. Funding also supports integration of initiatives across DTLOMS and Battlefield Operating Systems (BOS) into ATECP events. Initiatives include developing system-of-systems linkages, simulation/stimulation development, system engineering and architecture development, and post experiment modeling and analyses.

**FY 2001 Accomplishments:**

- 500 System Linkages - Run Time Manager Support
- 300 Digital Combined Arms Tactical Trainer Training Support Packages
- 100 Digital Combined Arms Tactical Trainer System Linkages
- 150 Digital Combined Arms Tactical Trainer After Action Report Capability
- 520 Command, Control, Communications and Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Testbed upgrade to support Joint Experiment Millennium Challenge 02 (MC 02)
- 308 Army Battle Command System (ABCS) integration in support of ABCS Battlefield Functional Area (BFA) systems - Joint Experiment Millennium Challenge 02 (MC02)
- 1723 Development, integration and implementation of the systems architecture for Joint Experiment Millennium Challenge 02 (MC 02).

Total 3601

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**312****FY 2002 Planned Program**

- 915 Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) execution support for Joint Experiment Millennium Challenge 02
- 350 Joint Infrastructure for Joint Experiment Millennium Challenge 02
- 150 Systems Engineering and Architecture Design for Joint Experiment Millennium Challenge 02
- 2000 Enroute Mission Planning and Rehearsal for Joint Experiment Millennium Challenge 02
- 2910 Command and Control Development for Joint Experiment Millennium Challenge 02
- 2300 Modeling and Simulation Support for Joint Experiment Millennium Challenge 02
- 1332 Architecture Engineering, integration and site support for Joint Experiment Millennium Challenge 02
- 6396 Development and site support for network support for Joint Experiment Millennium Challenge 02

Total 16353

**FY 2003 Planned Program**

- 9976 Supports Army participation in Joint Experiment Olympic Vision 03 in FY 03 and preparation for a major Joint Experiment (Olympic Challenge 04) in FY 04.

Total 9976

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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
33B SOLDIER-CENTERED ANALYSES FOR THE OBJECTIVE FORCE		0	993	3297	3285	3275	3272	3253	0	17375

**A. Mission Description and Budget Item Justification:** This project will provide early (pre-Milestone A) application of human performance and human figure modeling tools in the development of soldier-focused requirements to shape technology for Army Transformation. Design analyses, constructive simulations and soldier-in-the-loop assessments will ensure that manpower requirements, workload and skill demands are considered, avoid information and physical task overloads, and take optimum advantage of aptitudes, individual and collective training, and numbers of soldiers for an affordable Objective Force.

**FY 2001 Accomplishments:**  
Program begins in FY 2002.

**FY 2002 Planned Program**

- 993 Provide Human Factors Engineering and Manpower Integration (MANPRINT) support to TRADOC Centers, Schools and Battle Laboratories. Provide dedicated modeling and analysis cell to early and accurate MANPRINT estimates to AMC, AMC RDECs, TRADOC Centers, Schools and Battle Laboratories, ATEC and other service laboratories.

Total 993

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**6 - Management support**PE NUMBER AND TITLE  
**0605326A - Concepts Experimentation**PROJECT  
**33B****FY 2003 Planned Program**

- 3297 Provide Human Factors Engineering and Manpower Integration (MANPRINT) support to TRADOC Centers, Schools and Battle Laboratories.  
Provide dedicated modeling and analysis cell to early and accurate MANPRINT estimates to AMC, AMC RDECs, TRADOC Centers, Schools and Battle Laboratories, ATEC and other service laboratories.

Total 3297