

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

June 2001

BUDGET ACTIVITY
6 - MANAGEMENT SUPPORT

PE NUMBER AND TITLE
0605326A - Concepts Experimentation

COST (In Thousands)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	Total Cost
	Actual	Estimate	Complete							
Total Program Element (PE) Cost	21361	18738	33067	0	0	0	0	0	0	0
308 CONCEPTS EXPERIMENTATION	19452	12317	9414	0	0	0	0	0	0	0
309 DIGITAL INFORMATION TECHNOLOGY TESTBED	1909	0	0	0	0	0	0	0	0	0
312 ARMY/JOINT EXPERIMENTATION	0	6421	23653	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification:

PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.

The Concept Experimentation Program (project 308) enables the U.S. Army Training and Doctrine Command (TRADOC) battle labs and schools to evaluate emerging concepts, technologies and other equipment to help define Army mission needs and operational requirements. Projects selected for funding are relatively low cost conceptual evaluations, with high potential for warfighting return on investment. The program provides direct support to Battle Lab Warfighting Experiments (BLWE). The program is also a first look at emerging technologies that have the potential to support the Army's Transformation design needs. The Digital Information Technology Testbed (project 309), is a functional test bed and model for the DOD and Federal Government to test and integrate new digital technologies for collecting, disseminating and managing information globally. It is also operational multimedia records (management and archives) that enable DOD to meet its Title 10 responsibilities under the Goldwater-Nichols Act through collecting, managing and disseminating information worldwide to achieve knowledge dominance. Continued service experimentation in the form of Advanced Warfighting Experiments (AWE), limited objective experiments (LOE), and events supporting major Joint experiments is key to determine the Doctrine, Training, Leader Development, Organization, Materiel and Soldiers (DTLOMS) insights on how the Army fights as a force in transition from Legacy to Objective Force. Army Experimentation (project 312) funds the Army Experimentation Campaign Plan (AECPP) in support of Army Transformation. Congressional language mandates service participation in Joint experimentation. Army participation in Joint experiments is key to determine the interoperability requirements and how the force contributes to the Joint experimental concepts supporting Joint Vision (JV) 2020 and most importantly, Joint operations at the operational level of war.

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<u>B. Program Change Summary</u>	FY 2000	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2001 PB)	20785	15410	91943	0
Appropriated Value	20990	18910	0	
Adjustments to Appropriated Value	0	0	0	
a. Congressional General Reduction	0	0	0	
b. SBIR/STTR	-560	0	0	
c. Omnibus or Other Above Threshold Reductions	-86	0	0	
d. Below Threshold Reprogramming	1136	0	0	
c. Rescission	-119	-172	0	
Adjustments to Budget Years Since FY2001 PB	0	0	-58876	
Current Budget Submit (FY 2002/2003 PB)	21361	18738	33067	0

Change Summary Explanation: Funding - FY 2002: Funds were realigned in support of the Army Transformation (-56046) and the Joint Experiment Millennium Challenge 02 (-2830). FY 2003: Funds were realigned in support of the Army Transformation(-32914).

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PROJECT
308

COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	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	19452	12317	9414	0	0	0	0	0	0	0

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 capitalize on emerging technologies, emerging warfighting concepts, and new materiel initiatives. Program growth reflects increased emphasis on Warfighter Rapid Acquisition Program (WRAP) initiatives and accelerated acquisition methods. Funds are used to acquire, lease or fabricate equipment to conduct experiments to determine military utility or potential to satisfy Army Doctrine, Training, Leader Development, Organization, Materiel and Soldiers (DTLOMS) needs. TRADOC battle labs build on initiatives with greatest potential payoff. Program is also used as a first look at emerging technologies and emerging warfighting concepts that have the potential to support the Army's design needs. 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 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 2000 Accomplishments

- 323 Air and Missile Defense Maneuver Operations Capabilities
- 110 Smart Marker I
- 185 Feature Extraction Evaluation
- 133 Military Police/Engineer Urban Robot CEP
- 197 Nearly Autonomous Real-Time Alarm Security System (NARTASS)
- 355 Battle Staff Trainer for IBCT
- 470 Common Reconfigurable Sensor System (CRSS) and Communications for Long Range Fire Support
- 115 Soldier Power
- 114 Under Barrel Tactical Payloader
- 50 Evaluation of Alternative Voice Switching Technology in Support of the Initial Brigade Tactical Operations Center

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FY 2000 Accomplishments (Continued)

- 145 Enhanced Information Assurance Support
- 386 Information Dissemination Management Tactical IDM-T Enhancement for Initial Brigade and Supporting ARFOR
- 625 Beyond Line-of-Sight Communications Support
- 677 Battle Command Reengineering (Phase IV)
- 70 Audible Aversion Acoustic Device
- 295 Intelligence, Surveillance and Reconnaissance Planning Support Tool
- 101 Forward Looking Infrared Mission Planning Performance Enhancer
- 401 Army Command and Control Space Enhanced Program (AC2SEP)
- 497 Integrated Course of Action Critiquing and Elaboration System (ICCES) Experiment
- 250 Concept of Employment for HEMTT LHS Water Tank Racks for support of Water Distribution within the IBCT
- 245 Employment of the Helicopter External Lift Enhancer (HELE) to Support the IBCT
- 1600 Anticipatory Logistics
- 73 Swing Thru System
- 100 Palletized Load System Shoe
- 100 Roller Platform for Air Deployment
- 845 Battle Lab Discretionary Concept Experimentation
- 55 Battlefield Ministrations Tracking System
- 50 Handheld Command and Control Wireless Communications (HC2WC)
- 1909 Mounted Maneuver Battle Lab (MMBL) Experimentation
- 300 AECP - System Linkages - Close Combat Tactical Trainer (Division Capstone Exercise)
- 500 AECP - System Linkages (Division Capstone Exercise)
- 2125 AECP - C4I After Action Report Integration (Division Capstone Exercise)
- 405 AECP - Operational Architecture/Digital Command Post Support (Joint Contingency Force Advanced Warfighting Experiment)
- 250 AECP - Information for Global Reach

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308**FY 2000 Accomplishments (Continued)**

- 1935 AECF - Enroute Mission Planning and Rehearsal System (EMPRS) (Joint Contingency Force Advanced Warfighting Experiment)
- 1125 AECF - Land Warrior (Joint Contingency Force Advanced Warfighting Experiment)
- 1200 AECF - Data Collection (Joint Contingency Force Advanced Warfighting Experiment)
- 1136 AECF - Enroute Mission Planning and Rehearsal System (EMPRS) (Joint Contingency Force Advanced Warfighting Experiment)

Total 19452

FY 2001 Planned Program

- 3473 Mounted Maneuver Battle Lab (MMBL) Experimentation (Congressional Add)
- 445 Objective Communications Support for RSTA
- 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 COP Overlay - Information Operations and Management Information
- 113 Anticipatory Logistics (FY 00 Close Out)
- 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
- 330 Multi-purpose Aerial Delivery System (M-PADS) Analysis
- 450 Future Fires Command and Control
- 475 Striker II Sensor System Concept
- 2569 Discretionary funding for Battle Lab Directors to quickly evaluate emerging technology.

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FY 2001 Planned Program (Continued)

- 815 Support for Joint Warfighting Exercise Millennium Challenge 02 (Reprogram to PE 0605326.312)
- 135 Urban Future Infantry Combat Command and Control
- 128 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs.

Total 12317

FY 2002 Planned Program

- 9414 Concept experimentation to be determined by September 2001 CEP Schedule and Review Committee.

Total 9414

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312 ARMY/JOINT EXPERIMENTATION	0	6421	23653	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: The Army Experimentation Campaign Plan (AECPP) mission is to experiment with forces enabled with information based command and control, advances in training and leader development, technology enhancements, and Joint interoperability to realize improvements in warfighting capability and strategic responsiveness. Service participation in Joint experiments is Congressionally mandated with each service funding its own participation. The objective of experimentation is to increase the Army's strategic responsiveness for an expanded range of missions while preserving our core warfighting capability. FY 2002 funds are to be divided in support of Army Transformation between Army and Joint Experimentation. Operational guidelines require new concepts to meet Army Transformation and Joint force requirements. Concepts will be subject to rigorous experimentation and analysis for informed senior Army leadership decisions. Additionally, experimentation is required "to support development of Objective Force operational and organizational plans and future operational capabilities" (Army Transformation Campaign Plan). Initiatives include developing system of systems linkages; exploring and developing new training support packages, digital after action report (AAR) capabilities, system engineering and architecture development, and simulation/stimulation development.

FY 2000 Accomplishments

Funded in Project 308

FY 2001 Planned Program

- 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)

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312**FY 2001 Planned Program (Continued)**

- 739 Army Battle Command System (ABCS) integration in support of ABCS Battlefield Functional Area (BFA) systems - Joint Experiment Millennium Challenge 02 (MC02)
- 2290 Development, integration and implementation of the systems architecture for Joint Experiment Millennium Challenge 02 (MC 02).
- 1300 Purchase of ABCS hardware for Millennium Challenge 02
- 331 Investigation of new wireless local area network/Tactical Fast Lane (WLAN/TACLANE) software; tactical internet testing with new ABCS software; investigate TOC routing configuration for architectures
- 191 Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs.

Total 6421

FY 2002 Planned Program

- 23653 Force XXI Experimentation / Advanced Warfighting Experiments to be prioritized by the Army Experimentation Campaign Plan (AECPP) Funding Integrated Processing Team.

Total 23653