

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY

2 - Applied Research

PE NUMBER AND TITLE

0602785A - Manpower/Personnel/Training 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		15130	15053	15322	15622	16288	16393	16651
780	REFUGEE MANAGEMENT & TRACKING SYSTEM	2287	0	0	0	0	0	0
790	PERSONNEL PERFORMANCE & TRAINING TECHNOLOGY	12843	15053	15322	15622	16288	16393	16651

A. Mission Description and Budget Item Justification: The objective of this program is to provide the scientific and technical basis for personnel selection, leader development, and training that will ensure that the human component of warfighting can maximize the benefit of transformations in advanced technologies, weapons, and equipment (e.g., Future Combat Systems) and can perform effectively in Future Force operations and, where feasible, exploits opportunities to enhance Current Force capabilities. This applied research program will provide methods, techniques, and tools to improve the assignment procedures to ensure the right person is placed in the right job, develop improved methods for developing leader cognitive skills, and provide the behavioral science technologies required for the development of effective individual and collective (unit) training strategies. Research topics include training strategies for the digitized battlefield; strategies to maximize the training effects in simulated environments; optimum designs and utilization of simulators and training devices to achieve maximum learning at minimum cost; and modernization of the selection and classification systems to maintain warfighting capabilities for future forces. Beginning in FY 2004, a major thrust of this program will be to expand Leader Development applied research beyond the existing work on more effective methods to develop the critical thinking skills that leaders must have to make effective battlefield decisions in rapidly changing operational situations and in information-rich environments. Additional research will be initiated on developing the interpersonal skills needed by small unit leaders to rapidly form cohesive teams with continuously changing mission requirements and personnel turbulence, and to effectively operate with diverse groups (joint, multi-cultural, interagency, etc.); and on developing mentoring and coaching skills so leaders can support early development of leadership skills and adaptability in younger leaders. This PE is managed by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI). 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).

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<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	15358	15548	15607
Current Budget (FY 2005 PB)	15130	15053	15322
Total Adjustments	-228	-495	-285
Congressional program reductions		-132	
Congressional rescissions			
Congressional increases			
Reprogrammings	-228	-363	
SBIR/STTR Transfer			
Adjustments to Budget Years			-285

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BUDGET ACTIVITY 2 - Applied Research		PE NUMBER AND TITLE 0602785A - Manpower/Personnel/Training Technology			PROJECT 790			
COST (In Thousands)		FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
790	PERSONNEL PERFORMANCE & TRAINING TECHNOLOGY	12843	15053	15322	15622	16288	16393	16651
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Accomplishments/Planned Program Personnel Selection and Assignment: In FY03, identified knowledge, skills, and attributes needed for Soldiers to successfully perform in future jobs (e.g., for the Future Force); validated new screening tools for Army recruiters and quantified the amount of improvement offered by these tools over the current recruiter selection system; assessed recent technological advances in job/skill performance certification; proposed the design of Army enlisted job certification measures; and validated model for predicting first-term enlisted attrition. In FY04, identify and develop predictors and measures of future enlisted Soldier job performance; validate new screening tools for station commanders and develop implementation strategies for new recruiter and station commander screening batteries; and develop prototype job certification measures. In FY05, will recommend procedures for a more flexible enlisted selection and classification system that can keep pace with changing job requirements; and will begin a formal validation, in an operational environment, of a new system for trainers and commanders to certify that Soldiers qualify on the skills necessary for effective job performance.		FY 2003 3949	FY 2004 4042	FY 2005 4182

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Accomplishments/Planned Program (continued)		FY 2003	FY 2004	FY 2005
Training: In FY03, incorporated advanced simulation methods into new qualification instruction for OH-58D helicopters and tested for improved performance, safety, and reduced costs; identified requirements for automated tools to measure Command, Control, Communications, and Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) skills; identified methods to train small units to identify critical battlefield information to fully utilize capabilities of evolving Soldier systems (e.g., Objective Force Warrior); developed preliminary metrics for assessing small unit Soldier and leader performance that are flexible enough to transition as new systems are fielded; and derived principles of training and knowledge transfer for TRADOC to use in programs for acquiring digital skills. In FY04, identify the roles of simulators and live aircraft within a model of simulation-intensive collective aircrew training; formulate principles for training key C4ISR skills; and develop cutting edge training methods for new Objective Force Warrior Small Unit leader tasks and Tactics, Techniques, and Procedures (TTPs). In FY05, will evaluate prototype simulation-intensive collective aircrew training programs; will develop methods for training key C4ISR skills for Future Combat Systems (FCS) Unit of Action commanders and staffs; and will formulate principles of effective performance measurement in future environments. It will also assess the effectiveness of embedded/virtual/augmented reality approaches for small unit leader training; and will demonstrate after action review and feedback capabilities in wearable computers. ARI personnel are co-located and will collaborate with the Simulation and Training Technology Center (STTC) on these efforts.		7380	6906	7196
Leader Development: In FY03, assessed the utility of developing leader interpersonal and teamwork skills using a mix of film, animation, and role playing innovations; and implemented and evaluated multi-national teamwork training peacekeeping forces in Bosnia. In FY04, identify components of an experiential growth model of accelerated leader development; and develop techniques for small group coaching of leaders. In FY05, will develop approaches to help leaders identify their strengths and assess their growth as leaders throughout their careers; will refine measures of effective leader performance; and will create battlefield vignettes and scenarios for use in Combined Arms and Services Staff School (CAS3) and FCS.		1514	3827	3944
Small Business Innovative Research/Small Business Technology Transfer Programs		0	278	0
Totals		12843	15053	15322