

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)						February 2006	
BUDGET ACTIVITY 2 - Applied Research			PE NUMBER AND TITLE 0602785A - Manpower/Personnel/Training Technology			PROJECT 790	
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
790 Personnel Performance & Training Technology	14839	14990	16200	15834	15987	16072	16226
<p>A. Mission Description and Budget Item Justification: The objective of this Program Element (PE) is to conduct the behavioral and social science applied research that will provide the nonmaterial solutions to improve human performance and the Army's capability to fully leverage advances in networks, systems, and technologies as they evolve. This research provides the scientific basis to recruit, select, assign, promote, educate, train, and retain Soldiers and Leaders who will perform well today, and be ready and relevant as the future unfolds. The research, where feasible, exploits opportunities to enhance Current Force capabilities. The behavioral and social science applied research conducted in this program element will provide knowledge products, methods, techniques, and tools that will enable the Army to: select Soldiers who are predicted to perform well in future jobs and assign them to jobs that better match their skills and abilities; retain an effective career force through improved strategies and incentives to influence Soldiers to stay in the Army for longer periods of time; accelerate the development of leader critical thinking and interpersonal skills through virtual practice so that junior leaders are more adaptable and prepared for the uncertain, rapidly changing missions they are facing today and missions that are predicted to be even more complex in the future; leverage the potential of embedded training technologies for training: (1) complex battle command skills for network-enabled environments, (2) dismounted squad leadership and team maneuver with ground Soldier systems technologies, and (3) command and control (C2) in digital, distributed networks. Additional research is focused on the training techniques and procedures that will make it easier for trainers and training developers to rapidly respond to changes in mission or operational requirements and that will provide a more synergistic training and educational process (e.g., automated and improved diagnostics, coaching and mentoring, performance measures, and feedback methods). This program leverages and coordinates with work at a number of other Laboratories and RD&E Centers including, the Simulation and Training Technology Center (STTC), Natick Soldier Center, Army Research Laboratory (ARL) and the Communications Electronics Command (CECOM). 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). This project is managed by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI).</p>							
Accomplishments/Planned Program				<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
Personnel Selection and Assignment: In FY05, assessed the extent to which promising, but currently unmeasured, Soldier attributes predict future-oriented enlisted job performance; validated new certification measures to ensure Soldiers qualify on the skills necessary for effective job performance; developed a set of alternative methods that can improve enlisted attrition management. In FY06, develop guidelines and recommendations for a more flexible enlisted selection and classification system that can keep pace with changing job requirements; develop a conceptual framework of Army career continuance that identifies the critical factors that influence Soldier retention in today's volatile global-war-on-terrorism environment; identify interventions to enhance retention; and develop or adapt Soldier selection measures for their use in job classification to improve performance and job satisfaction of entry-level Soldiers. In FY07, will refine and test model of Army career continuance, assess potential interventions, and provide preliminary input to the DCS G-1 and TRADOC HQ on interventions that show a high potential to improve retention of Soldiers and leaders; and will conduct preliminary assessment of prototype job classification measures for enhancing entry-level performance and job satisfaction.				4090	4647	4536	
Training: In FY05, developed methods for training selected C2 skills for FCS Brigade Combat Team leaders and staffs; formulated principles of effective performance measurement in future digital C4ISR environments; conducted assessments of modified digital After Action Review (AAR) systems in terms of ability to support FCS C4ISR training; and assessed the effectiveness of embedded/augmented/virtual reality approaches for small unit leader training (in collaboration with STTC). In FY06, develop exemplar training package for improving dismounted small unit decision making capabilities and information utilization skills; provide lessons				7414	7495	8262	

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learned from virtual and augmented reality approaches to train future land warrior capabilities; identify cognitive behaviors underlying expert performance for critical individual and team battle command activities in network-enabled environments; create a laboratory environment to assess the impact of alerts on the AAR process in network-enabled systems; and analyze the impact of changes in robotic operator control unit design on training efficiency. In FY07, will develop exemplar training packages for commanders performing battle command in networked-enabled environments; will assess the impact of alerts on training requirements and the AAR process for a network-enabled force; will identify the collaboration/communication requirements needed between dismounted Soldiers and robotic operators for effective employment of robotic platforms in platoon-level exercises; will establish preliminary skill retention curves for critical digital skills; and will identify training and human dimension challenges of joint and coalition operations.			
Leader Development: In FY05, developed preliminary computer-based coaching techniques for expanding leader skills through experiential learning; developed and evaluated a prototype training system for leaders of multinational teams; developed self assessment techniques to increase leader self awareness. In FY06, assess an on-line self-assessment and feedback module for increasing self awareness and improving attention to learning materials; develop experiential growth model of leadership skills; design training strategies to improve critical thinking, interpersonal skills, and self-awareness using principles of experiential learning; develop preliminary model of how self-awareness influences the growth of leadership skills; and identify skills (cognitive, interpersonal), knowledge and attitudes that leaders need to perform in future joint and combined headquarters operations. In FY07, will validate effectiveness of protocols to collect and analyze data from Soldiers in the field on leadership vignettes; will evaluate online assessment tools for improving leadership growth and development; will evaluate alternate strategies to improve critical thinking and interpersonal skills; will design instruments for assessing the leader skills and attitudes needed for effective performance in high-stress, joint operations; and will identify critical cultural factors for leading multicultural teams.	3335	2848	3402
Total	14839	14990	16200

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<u>B. Program Change Summary</u>	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2006)	14846	15207	16006
Current BES/President's Budget (FY 2007)	14839	14990	16200
Total Adjustments	-7	-217	194
Congressional Program Reductions		-66	
Congressional Rescissions		-151	
Congressional Increases			
Reprogrammings	-7		
SBIR/STTR Transfer			
Adjustments to Budget Years			194