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<b>Exhibit R-2, PB 2010 Army RDT&amp;E Budget Item Justification</b>								<b>DATE:</b> May 2009		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040 - Research, Development, Test & Evaluation, Army/BA 3 - Advanced Technology Development (ATD)					<b>R-1 ITEM NOMENCLATURE</b> PE 0603007A Manpower, Personnel and Training Advanced Technology					
<b>COST (\$ in Millions)</b>	<b>FY 2008 Actual</b>	<b>FY 2009 Estimate</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	6.632	6.830	7.410						Continuing	Continuing
792: Personnel Performance & Training	6.632	6.830	7.410						Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This project matures and demonstrates advanced behavioral and social science technologies that enhance performance to ensure that the Warfighter keeps pace with the transformations in systems, weapons, equipment, and mission requirements to meet the goals of the future force. These technologies provide key capabilities through training methods and techniques that prepare Soldiers and leaders to effectively operate in complex digitized, networked environments, enable the use of embedded training technologies envisioned for future command and control (C2) systems, and foster cognitive, behavioral, and psychological flexibility, adaptability, and mission readiness.

The cited work is consistent with the Director, Defense Research and Engineering Strategic Plan, the Army Modernization Strategy, and the Army Science and Technology Master Plan.

Work is performed and managed by the US Army Research Institute (ARI) for the Behavioral and Social Sciences in Arlington, VA.

**B. Program Change Summary (\$ in Millions)**

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
Previous President's Budget	6.740	6.853	6.883	
Current BES/President's Budget	6.632	6.830	7.410	
Total Adjustments	-.108	-.023	.527	
Congressional Program Reductions	.000	-.023		
Congressional Rescissions	.000	.000		
Total Congressional Increases	.000	.000		
Total Reprogrammings	.002	.000		
SBIR/STTR Transfer	-.110	.000		

**Change Summary Explanation**

FY10 funds were increased to support Human Dimension Applications.

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040 - Research, Development, Test & Evaluation, Army/BA 3 - Advanced Technology Development (ATD)				<b>R-1 ITEM NOMENCLATURE</b> PE 0603007A Manpower, Personnel and Training Advanced Technology					<b>PROJECT NUMBER</b> 792	
<b>COST (\$ in Millions)</b>	<b>FY 2008 Actual</b>	<b>FY 2009 Estimate</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
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**B. Accomplishments/Planned Program (\$ in Millions)**

	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
Personnel Technology: This effort develops technologies to assess how Soldiers and units are impacted by Army mission, policy, or program changes. In FY08, collected and analyzed survey data and provided lessons learned on unit stabilization; increased complexity and improved aviation Selection Test Battery and investigated its validity as a tool to assign aviators to specific aircraft. In FY09, continue attitude and opinion research on factors that influence Soldier and Family satisfaction, retention, and readiness through design and analysis of surveys. In FY10, will exploit various methods and technologies to more rapidly assess attitudes and opinions across the Army to be more responsive to the fast-paced operational demands of the Global War on Terror (GWOT) and improve understanding of assessment methods of Soldiers' attitudes and opinions to quantify factors influencing Soldiers' career plans.	1.330	1.352	1.387	
Small Business Innovation Research/Small Business Technology Transfer Programs	.000	.106	.000	
Training Technology and Leader Development:	5.302	5.372	.000	

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<b>B. Accomplishments/Planned Program (\$ in Millions)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>
<p>This effort provides training techniques that enable Soldiers to take full advantage of advances in technology and systems as they evolve and helps the Army attain its goals of embedded training in future force systems.</p> <p>In FY08, refined and demonstrated methods for more rapid development of training support packages that meet future technology and system spin out requirements; validated assessment methods of single-user immersive training technologies; developed preliminary guidelines for designing effective single user, interactive, distributed training using game-engine-based immersion; and developed techniques such as the use of scenario-based, interactive lessons to train leaders to be more adaptable in persuading others with differing goals.</p> <p>In FY09, mature prototype training support packages that enable improved commander/staff performance in network-enabled environments; validate and refine assessment measures and metrics used in single-user immersive training technologies; exploit training tools/techniques to improve drill sergeant skills as trainers and improve initial entry training so first-term Soldiers are better prepared for operational deployments; and evaluate techniques leaders need as basic elements for leadership in changing, complex environments.</p>				
<p>Training Technology and Leader Development (cont'd):</p> <p>In FY10, will provide guidelines for optimizing the use of blended learning environments for Army training (e.g., TRADOC schools); will assess the level of preparedness and performance through behavioral evaluation tools following graduation from training programs to develop improved training strategies; and will demonstrate two Web-based training tools (one to predict skill retention and one to develop training, tactics, and procedures to improve training outcomes). Will exploit and improve emerging development and measurement methods that can facilitate the Army's capability to produce leaders who can more easily adapt to change and complexity.</p>	.000	.000	6.023	
<b>Total</b>	<b>6.632</b>	<b>6.830</b>	<b>7.410</b>	
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>D. Acquisition Strategy</b>				
N/A				
<b>E. Performance Metrics</b>				
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.				

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