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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Office of Secretary Of Defense									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support				PE 0804767D8Z: TRAINING TRANSFORMATION (T2)							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.000	40.375	92.253	0.000	92.253	93.525	101.383	79.282	78.836	Continuing	Continuing
758: JOINT NATIONAL TRAINING CAPABILITY (JNTC)	0.000	19.156	19.559	0.000	19.559	20.133	20.989	20.833	21.014	Continuing	Continuing
759: JOINT TRAINING CAPABILITY ANALYSIS OF ALTERNATIVES (TCAoA)	0.000	1.970	1.994	0.000	1.994	2.031	2.065	2.098	2.129	Continuing	Continuing
761: JOINT SIMULATION SYSTEMS (JSS)	0.000	7.310	7.208	0.000	7.208	7.203	7.376	7.482	7.597	Continuing	Continuing
764: IRREGULAR WARFARE (IW)	0.000	3.700	17.772	0.000	17.772	18.229	18.690	19.147	19.605	Continuing	Continuing
769: JOINT KNOWLEDGE DEVELOPMENT & DISTRIBUTION CAPABILITY (JKDDC)	0.000	2.170	2.194	0.000	2.194	2.234	2.272	2.307	2.341	Continuing	Continuing
760: Congressional Transactions	0.000	6.069	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
770: U.S. Forces Korea Training and Exercise Support	0.000	0.000	10.211	0.000	10.211	10.382	10.024	7.446	4.527	Continuing	Continuing
754: Immersive Simulation	0.000	0.000	33.315	0.000	33.315	33.313	39.967	19.969	21.623	Continuing	Continuing
A. Mission Description and Budget Item Justification											
** This program was previously funded in Program Element 0603757D8Z and is not a new start. **											
These programs are part of a coordinated effort to develop and deploy capabilities for rapidly linking and integrating Live, Virtual, and Constructive (LVC) forces for Services, Combatant Commanders (COCOMs), coalition, and other government agencies. These programs will create a realistic battlespace environment in which to train as a Joint Warfighting force to meet emerging mission requirements including the Long War. These investments support the Secretary of Defense's (SECDEF)											

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Commanders Exercise and Engagement Training Transformation (CE2T2) initiative to enable and enhance Joint Warfighting readiness by training as we intend to fight. The elements associated with this coordinated effort consist of: - Joint National Training Capability (JNTC) - Training Capability Analysis of Alternatives (TCAoA) - Joint Simulation Systems (JSS) - Irregular Warfare (IW) - Joint Knowledge Development & Distribution Capability (JKDDC) - National Program for Small Unit Excellence (NPSUE) - U.S. Forces Korea Training & Exercise Support (USFK) - Combatant Commanders Exercise (JTF-E HQ) - Immersive Simulation JNTC: Initially established in 2003, JNTC continues to develop and integrate Advanced Training Technologies (ATT) into a seamless Joint training environment. JNTC establishes the overarching Joint framework and context necessary for COCOMs and Services to achieve a Joint training environment through an integrated network of training sites and nodes. JNTC provides the common standards, architecture, and development processes required to link Joint training programs. By leveraging existing training programs or initiating specific actions, JNTC is providing credible opposing force capabilities and expanded access to assets typically unavailable to the training audience by integrating virtual or constructive representations of these capabilities. This furthers the integration of Joint training objectives into Service training events, while capturing the objective data necessary to provide a complete and accurate after action review. This program develops and enhances current and future Joint training enterprise capabilities. TCAoA: The TCAoA effort focuses on comparing current training capabilities with training requirements in order to identify gaps in our current Joint training capability, to identify alternatives for resolution and to assess the cost and effectiveness of these alternatives. Specifically, the TCAoA focuses on: (1) developing and integrating enhancements to the existing and programmed constructive simulations, (2) pursuing selected alternative training methodologies, (3) developing an innovative acquisition prototype, (4) developing solutions to implement recommendations from the Joint Staff's comprehensive study to re-engineer Joint training and (5) developing a clear management and oversight structure to meet future Joint training requirements. These efforts provide solutions to the 35 gaps and seams in Joint and Service training requirements identified by the COCOM's in the SECDEF 2004 TCAoA study. These efforts increase warfighter Joint training capabilities with improved constructive simulations and streamlined acquisition processes, leveraging industry training methodologies and technologies to provide on-demand Joint training tailorable to COCOM requirements for Joint Task Force headquarters staffs and individuals. JSS: This effort provides warfighters with enhanced Joint Live, Virtual, and Constructive based training capabilities resident in the Joint Force Trainer Toolkit (JFTT). The JFTT is a set of training enablers, and "certified systems" that are interoperable and acceptable for usage within the Joint training environment. The JFTT is a one-stop shop that enables Services, COCOMs, Agencies and Coalition partners to deliver trained, capable, and interoperable Joint Forces.		

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IW: This research and development effort closes training gaps at the tactical and operational level and ensures our General Purpose Forces (GPF) receive immersive, pre-deployment training equal to that provided to Special Forces. This effort researches, develops and integrates human terrain/cueing/profiling training, enhanced and distributed interagency team training, cultural awareness training, mixed reality training, and distributed training technologies that enhance IW training for GPF. JKDDC: This requirement is to develop a Joint Individual Training Toolkit of web enabled individual and small group training products and services. Products and services developed in response to JKDDC stakeholder (COCOMs, Services, and Combat Support Agencies) prioritized training requirements. JKDDC supports a career-long joint learning continuum, joint professional military education and tailored common training standards to Service members for tasks that are jointly executed, resulting in trained, capable, and interoperable joint forces. This supports advanced technology development and enhancement for the Joint Advanced Distributive Learning training community. JKDDC advanced technology initiatives principally include the Virtual Cultural Awareness Training (VCAT) web-based gaming and Small Group Scenario Trainer (SGST), both accessible via the Joint Knowledge Online (JKO) Learning Management System (LMS). This capability facilitates the training and preparation of tens of thousands of military and civilian personnel deployed to combat theaters of operation prior to serving in their assigned Joint Task Force (JTF) billets. Specifically, VCAT supports one of the top three identified training shortcomings of returning warriors from United States Central Command (CENTCOM) based JTFs cultural awareness training. JTF 'battle staffs' will be adequately trained warriors, as individuals and the staffs collectively based on SGST development and overcoming existent training inadequacies for joint warriors. Significant training deficiencies will be mitigated in critical 'go to war' tasks. USFK: This program will develop a Modeling & Simulation solution that is a jointly accredited, supported, and funded federation of constructive simulations capable of satisfying all joint exercise training requirements in the Korean Theater of Operations and that is interoperable with the Republic of Korea developed Korean Simulation System. This solution will be capable of interoperating in a common battlespace that realistically represents the operating environment to all levels of training audiences, tactical to strategic, in Korean theater exercises. While supporting USFK's specific requirements, this solution will contain enhancements that will benefit all users of the JLVC. JTF-E HQ: The establishment of a standing JTF-E HQ would give DoD the ability to conduct WMD-elimination operations rapidly and enhance planning, training, and exercising for these activities across the combatant commands, and support phase 0 activities necessary to shape the security environment successfully. Currently, a JTF-E HQ is established when a Combatant Command executes orders to conduct a WMD elimination operation. The lead time to stand up the HQ for these missions reduces the chances of establishing positive control over an adversary's WMD and provides an opportunity for hostile actors to secure WMD-related materials and constituted weapons for use against US forces. A standing HQ would minimize the reaction time when an operation is executed and decrease the likelihood that an adversary would secure WMD first. Immersive Simulation: As part of the Department of Defense's shift to building IW capability and recognizing the percentage of casualties taken in close combat, increased funding through Undersecretaries of Defense, Personnel and Readiness to the services and USJFCOM for urgent development of infantry immersive training		

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BA 6: RDT&E Management Support					
simulators as part of a broader national effort for small unit excellence. While highlighted by the need to adapt simulation now to IW demands, the value of enhanced infantry small unit immersive simulation will contribute to small unit proficiency and survival across the range of military operations, from irregular to conventional.					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	0.000	34.306	0.000	0.000	0.000
Current President's Budget	0.000	40.375	92.253	0.000	92.253
Total Adjustments	0.000	6.069	92.253	0.000	92.253
• Congressional General Reductions		-0.331			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		6.400			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Program Adjustments	0.000	0.000	92.253	0.000	92.253
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 770: U.S. Forces Korea Training and Exercise Support				FY 2009	FY 2010
Congressional Add: *** PLEASE ENTER CONGRESSIONAL ADD TITLE ***				0.000	0.000
Congressional Add Subtotals for Project: 770				0.000	0.000
Project: 754: Immersive Simulation					
Congressional Add: *** PLEASE ENTER CONGRESSIONAL ADD TITLE ***				0.000	0.000
Congressional Add Subtotals for Project: 754				0.000	0.000
Congressional Add Totals for all Projects				0.000	0.000
Change Summary Explanation					
1. Agile Software Capability Intervention \$1.6M (FY 2009) and \$1.2M (FY 2010) - The Agile Software Capability Intervention (ASCI) is a process and development activity that provides a distributed testbed solution to the complex software development in the Modeling & Simulation (M&S) domain. Focus is					

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on the Joint Live Virtual Constructive (JLVC) federation and requirements to represent the federation on an Enterprise level in a Service Oriented Architecture (SOA). In addition, ASCI principles are applied to process and development activities to provide database initialization solution for complex software development in the M&S domain. Focus is on the Joint Rapid Scenario Generation requirements to represent the capability on an Enterprise level in a SOA. Provides subject matter expertise, rapid reconfiguration laboratory assessment and certification of distributed test bed, products, and documentation review supporting productivity enhancements through use of ASCI in the Joint Training Environment. The ASCI project will focus on 30-day development sprints culminating in deliberate distributed test events supported by the Joint Advanced Training Technology Laboratory (JATTL). The outcome of this effort will result in demonstratable events in the JATTL using the new SOA JLVC federation supporting Political, Military, Economic, Information, and Infrastructure capability. 2. Indiana University Complex Operations Partnership (InCOP) \$2.0M (FY 2009) – Create Multidisciplinary partnership to respond to Muscutatuck Center for Complex Operation's need for analysis and support on strategic languages and cultures, governance and the rule of law, economic reconstruction and development, and making and implementing policy in the Joint, Interagency, Intergovernmental, and Multinational/Non-Governmental Organization context. Provide venue where training, evaluation and certification of National Guard joint formations can be performed to achieve a high degree of confidence and where readiness standards are met. Evaluate Training Directorate requirements process utilizing Indiana National Guard training venue. Research to strengthen civilian and military cooperation with new concepts (IW, complex operations, etc.), Partnerships – US Strategic Command (USSTRATCOM), Indiana University, Purdue University, Northwestern University and Indiana National Guard. 3. Integrated Analysis Environment \$1.2M (FY 2009) and \$2.0M (FY 2010) - Provides enhanced joint training capability for the Home Basing Program. Integrate with Future Combat Systems. Supports distributed units in a Live, Virtual, and Constructive synthetic training environment. Integrate future Army capabilities into the joint operational environment. Builds upon USJFCOM Modeling & Simulation Flagship study through development of an implementation plan. Supports J7 move towards Service construct (freeform type training) and Unified Architecture. Consolidates and aligns USJFCOM Modeling and Stimulation Support Activities including Training, Exercises, Experimentation and Scenario Generation. 4. Playas Training and Research Center (PTRC)Joint Training Experiment \$4.8M (FY 2009) and \$3.2M (FY2010) - PTRC Joint Training Experiment provides a platform for training, evaluation and/or certification of Active and Reserve Component joint formations in intergovernmental and interagency missions. Integrate with JNTC architecture and standards. Adapt and enhance PTRC capabilities to meet the evolving needs of Active and Reserve Component joint formations in intergovernmental and interagency missions. Enhance government infrastructure capability at PTRC. Become an accredited, integral component of the Joint Training Environment (JTE) and provide dedicated program management and coordination with research institutions and JTE representatives. Monitor execution, perform analysis, conduct tests and establish transition strategy and support. Partnership between New Mexico Tech, New Mexico State University (NMSU) and White Sands Missile Range (WSMR). 5. NMSU National Security and Policy Institute \$10M (FY 2009) - Prepares national security professionals to serve as managers and policy leaders in an ever-changing global environment. WSMR Infrastructure and Networking Capability to support National Security Training. Adapts and enhances WSMR capabilities to meet the evolving needs of JNTC intergovernmental, interagency, and coalition missions. Supports Joint Training and Experimentation Network		

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node for WSMR with backside Secret Defense Research and Engineering Network to Playas to support complex urban environments, Chemical, Biological, Radiological, Nuclear, and Explosive and other National Security scenarios in accordance with Joint Training Environment architecture and standards. Enhances Playas Training and Research Center (PTRC) Networking Capability. Enhances government data network capability at PTRC, WSMR and facilitates synergy with Fort Bliss Future Combat System training concept development program and range. Provides subject matter expertise on National Security and Policy issues. Adapts and enhances Joint Training Enterprise capabilities to meet the evolving needs of National Security and Public Policy in an ever-changing global environment. Provides National Security and Public Policy.		

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
758: <i>JOINT NATIONAL TRAINING CAPABILITY (JNTC)</i>	0.000	19.156	19.559	0.000	19.559	20.133	20.989	20.833	21.014	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

DoD directed USJFCOM to establish the JNTC Advanced Training Technology to develop future training concepts and capabilities. The mission is to develop robust research, development test and evaluation (RDT&E) capabilities that integrate Live, Virtual, and Constructive (LVC) elements into a seamless Joint training environment. JNTC creates Joint warfighting conditions through a networked collection of interoperable training sites, ranges, and nodes that synthesize personnel, doctrine, and technology to deliver and achieve "Joint Context" for COCOM and Service training requirements. JNTC provides RDT&E within an LVC distributed test-bed supporting the advancement of training technologies in the context of a Joint integrated battle space. The test bed operates as a continuous training RDT&E environment, providing the foundation for a distributed and deployable Mission Rehearsal System, integrating live Intelligence, Surveillance and Reconnaissance feeding the Common Operational Picture. These funds provide critical Joint/Coalition Service members and interagency partner's enhanced training to allow requisite enhancements to existing training systems, capabilities, and technologies. These enhancements improve training efficiencies and provide an integrated LVC environment. This capability precludes the necessity for conducting large-scale live exercises to achieve the SECDEF's Commanders Exercise and Engagement Training and Transformation (CE2T2) vision.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
P758 Joint National Training Center (JNTC)	0.000	19.156	19.559	0.000	19.559
FY 2010 Plans: - Complete deployable spiral 3 (enable web services and distributive knowledge management) to provide an enterprise solution to enable near-real time and post event assessment of the Joint Warfighters performance. Completed design of a Special Operating Forces/Conventional force instrumentation integration capability. - Research the integration of mixed reality trainers and virtual reality trainers into the JLVC.					

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
• Release Joint Live Virtual Constructive Federation version 4. • Integrate Marine constructive simulations into the Joint Trainer Toolkit by integrating the Marine Air Ground Task Force Tactical Warfare Simulation (MTWS) and the Joint Live Virtual Constructive federation. • Integrate National level intelligence capabilities into the Joint Training Enterprise by integrating the National Security Agency's Joint Cryptological Mission Simulation (JCMS) and the Joint Live Virtual Constructive federation. • IAW DoD directives establish a development road map for the incorporation of Internet Protocol version 6 into the Joint Trainer Toolkit. • Conclude development and integration of the OPFOR Command & Control (C2). • Upgrade existing Battlefield Communications Simulation System systems procured for Air Force and Navy training programs. • Provide Maritime Threat system development for emerging capability in the littoral and riverine environments. • Continue Information Operations Traffic Generator operability enhancements. • Develop improved Concealment, Countermeasures and Decoy (CCD) equipment capabilities and technologies. • Continue development and conduct integration of CCD technologies into training events. • Continue NextGen Multi-Spectral Threat Emitter system development. Transition these upgraded production variants into training events. • Conclude Man Portable Air Defense System upgrade. • Implement Service Oriented Architecture approaches for Joint training information applications and information resources that interface to the external systems, services, or data sources. • Continue to research communication technologies that will facilitate the distribution of mixed reality training around the globe - move electrons instead of people to ensure the warfighter's last training experience is as close to the real thing as possible. • Continue research and development efforts to mitigate or resolve identified Joint training cross-domain information sharing issues/shortfalls/gaps.						

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
• move electrons instead of people to ensure the warfighter's last training experience is as close to the real thing as possible. Continue research and development efforts to mitigate or resolve identified Joint training cross-domain information sharing issues/shortfalls/gaps.						
FY 2011 Base Plans: • Research the integration of mixed reality trainers and virtual reality trainers into the JLVC. • Release Joint Live Virtual Constructive Federation version 4. • Integrate Marine constructive simulations into the Joint Trainer Toolkit by integrating the Marine Air Ground Task Force Tactical Warfare Simulation (MTWS) and the Joint Live Virtual Constructive federation. • Upgrade existing Battlefield Communications Simulation System systems procured for Air Force and Navy training programs. • Provide Maritime Threat system development for emerging capability in the littoral and riverine environments. • Continue Information Operations Traffic Generator operability enhancements. • Develop improved Concealment, Countermeasures and Decoy (CCD) equipment capabilities and technologies. • Continue development and conduct integration of CCD technologies into training events. • Continue NextGen Multi-Spectral Threat Emitter system development. Transition these upgraded production variants into training events. • Conclude Man Portable Air Defense System upgrade. • Implement Service Oriented Architecture approaches for Joint training information applications and information resources that interface to the external systems, services, or data sources. • Continue to research communication technologies that will facilitate the distribution of mixed reality training around the globe - move electrons instead of people to ensure the warfighter's last training experience is as close to the real thing as possible.						

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
- Continue research and development efforts to mitigate or resolve identified Joint training cross-domain information sharing issues/shortfalls/gaps. - move electrons instead of people to ensure the warfighter's last training experience is as close to the real thing as possible. - Continue research and development efforts to mitigate or resolve identified Joint training cross-domain information sharing issues/shortfalls/gaps.											
Accomplishments/Planned Programs Subtotals						0.000	19.156	19.559	0.000	19.559	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0804767D8Z: <i>JNTC O&M Funding</i>		65.600								Continuing	Continuing
• 0804767D8Z-: <i>JNTC Procurement Funding</i>		13.590								Continuing	Continuing
D. Acquisition Strategy N/A											
E. Performance Metrics											
The USJFCOM Joint Warfighting Center (JWFC) Joint Force Trainer Enterprise Resource Planning Board (JFT ERPB) established in FY07 reviews all RDT&E equities. The JFT ERPB consists of senior technical, operational, program manager, and stake holder representatives within the Joint Force Trainer Community. The board's responsibilities encompass merging and prioritizing technical training requirements. It apportions work to the RDT&E elements based on an assessment of where the work is best accomplished. The board will evaluate the efficacy of development efforts based on performance metrics and will vote on whether or not to continue the effort. This process will ensure the Joint Force Trainer capabilities development effort synchronizes with warfighter requirements. Performance metrics include, but are not limited to; time, money, realism, and fidelity as defined below: - Time – Will the effort enable the Joint Force Trainer to prepare and execute training more timely than current capabilities allow? - Cost – Will the effort enable the Joint Force Trainer to prepare and execute training at a more effective and efficient cost than current capabilities allow?											

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• Realism – Will the effort enable the Joint Force Trainer to create a training environment that is closer to the real world environment than current capabilities allow? • Fidelity – Will the effort enable the Joint Force Trainer to create more detailed capabilities in the training environment than current capabilities allow? The ERPB is the strategic management forum where the outcomes of performance relative to our external customers, stakeholders, and strategic stewardship of resources are the focus of discussion. Performance against the targets will be assessed and reported monthly, briefed quarterly to the ERPB, and rolled up into the JWFC Joint Training End-of-Fiscal Year Performance Report to ensure transparency and accountability.		

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
759: JOINT TRAINING CAPABILITY ANALYSIS OF ALTERNATIVES (TCAoA)	0.000	1.970	1.994	0.000	1.994	2.031	2.065	2.098	2.129	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
Joint Force Trainer supports development capabilities in Joint simulations to eliminate training gaps identified by the Combatant Commanders (COCOMs) and in accordance with Secretary of Defense’s Training and Transformation objectives. In accordance with the Unified Command Plan 2006, US Joint Forces Command (JFCOM), Joint Warfighting Center leads the development and implementation of system architectures that directly support distributed Joint training requirements of the other COCOMs, Joint Task Forces, and Defense Agencies. The underlying premise of TCAoA centers on privatization of training support and development with the competitive market forces driving the development of technologies to reduce the cost of training. The creation of a JFCOM Joint Oversight Board establishes a governance process to review the effectiveness of the tools and the providers. Management of the toolkit, which is a set of capabilities, and system certified technologies that are interoperable and acceptable for usage within the Joint training environment and supports; Joint Exercises, Doctrine, Lessons Learned, Distributed Learning, and Modeling & Simulation. There will be a government-led Consortium with industry and academia that ensures the tools in the toolkit comply with the requirements of the common architecture. A number of emerging technologies from Industry, Government and Academic sources that offer the greatest potential to reengineer Joint training are considered for training use. These technologies include Light Simulations, Light Federations, Story-Driven Training, Massively-Multi-player Games, Training Objective Driven Simulation, Embedded Training, and Joint Community Unique Simulations.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
P759 Joint Training Capability Analysis of Alternatives (TCAoA)							0.000	1.970	1.994	0.000	1.994
FY 2010 Plans:											
• Complete innovation acquisition use case assessment and provide training capability to COCOMs.											

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
- Enhance emerging technologies such as immersive virtual technologies, story driven training and massive-multiplayer online game technology to develop two new prototypes for Joint community unique simulations in support of TCAoA gaps. - Enhance existing web-based, immersive technologies simulations to enable advanced problem solving, enhanced decision making, and leadership skills for the Joint, Interagency, Intergovernmental and multi-national players deployed in Global War on Terrorism. - Develop an over-arching gaming technology strategy that is Joint training focused, yet, coordinated with Service training capability requirements and R&D plans to identify future innovative prototypes and acquisition strategies (long term Measures of Effectiveness). - Enhance information operations by modeling computer-network attack and defense. - Implement a psychological operations capability in the Joint, Live, Virtual, and Constructive Federation. - Develop Service Orientated Architecture (SOA) for Joint training federation, and implement a live, virtual, and constructive capability to support COCOM and US participation in NATO events. - Develop Net-Centric Data Strategy (NCDS) for terrain, order of battle, weather, targeting, and infrastructure, to provide faster and higher-fidelity mission rehearsals through improved interoperability and reuse. - Deliver COCOM gaming technology and analyze the effectiveness of using Massively Multiplayer Games, Story-Driven Training, and Light Simulations/Federations for COCOM training requirements. - Enhance small unit home station training through inoculation of cognitive, visual, audio, thermal, olfactory effects and chaos of battle in a fully immersive live virtual constructive environment. FY 2011 Base Plans: - Enhance emerging technologies such as immersive virtual technologies, story driven training and massive-multiplayer online game technology to develop two new prototypes for Joint community unique simulations in support of TCAoA gaps.						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense				DATE: February 2010							
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support		R-1 ITEM NOMENCLATURE PE 0804767D8Z: TRAINING TRANSFORMATION (T2)		PROJECT 759: JOINT TRAINING CAPABILITY ANALYSIS OF ALTERNATIVES (TCAoA)							
B. Accomplishments/Planned Program (\$ in Millions)											
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total					
- Enhance existing web-based, immersive technologies simulations to enable advanced problem solving, enhanced decision making, and leadership skills for the Joint, Interagency, Intergovernmental and multi-national players deployed in Global War on Terrorism. - Develop an over-arching gaming technology strategy that is Joint training focused, yet, coordinated with Service training capability requirements and R&D plans to identify future innovative prototypes and acquisition strategies (long term Measures of Effectiveness). - Enhance information operations by modeling computer-network attack and defense. - Implement a psychological operations capability in the Joint, Live, Virtual, and Constructive Federation. - Develop Service Orientated Architecture (SOA) for Joint training federation, and implement a live, virtual, and constructive capability to support COCOM and US participation in NATO events. - Develop Net-Centric Data Strategy (NCDS) for terrain, order of battle, weather, targeting, and infrastructure, to provide faster and higher-fidelity mission rehearsals through improved interoperability and reuse. - Enhance small unit home station training through inoculation of cognitive, visual, audio, thermal, olfactory effects and chaos of battle in a fully immersive live virtual constructive environment.											
Accomplishments/Planned Programs Subtotals		0.000	1.970	1.994	0.000	1.994					
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete Continuing	Total Cost Continuing
• 0804767D8Z: Joint Training Capability Analysis of Alternatives (TCAoA)		1.060									
D. Acquisition Strategy											
N/A											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0804767D8Z: <i>TRAINING TRANSFORMATION (T2)</i>	PROJECT 759: <i>JOINT TRAINING CAPABILITY ANALYSIS OF ALTERNATIVES (TCAoA)</i>
E. Performance Metrics The USJFCOM Joint Warfighting Center (JWFC) Joint Force Trainer Enterprise Resource Planning Board (JFT ERPB) established in FY07 reviews all RDT&E equities. The JFT ERPB consists of senior technical, operational, program manager, and stake holder representatives within the Joint Force Trainer Community. The board's responsibilities encompass merging and prioritizing technical training requirements. It apportions work to the RDT&E elements based on an assessment of where the work is best accomplished. The board will evaluate the efficacy of development efforts based on performance metrics and will vote on whether or not to continue the effort. This process will ensure the Joint Force Trainer capabilities development effort synchronizes with warfighter requirements. Performance metrics include, but are not limited to; time, money, realism, and fidelity as defined below: • Time – Will the effort enable the Joint Force Trainer to prepare and execute training more timely than current capabilities allow? • Cost – Will the effort enable the Joint Force Trainer to prepare and execute training at a more effective and efficient cost than current capabilities allow? • Realism – Will the effort enable the Joint Force Trainer to create a training environment that is closer to the real world environment than current capabilities allow? • Fidelity – Will the effort enable the Joint Force Trainer to create more detailed capabilities in the training environment than current capabilities allow? The ERPB is the strategic management forum where the outcomes of performance relative to our external customers, stakeholders, and strategic stewardship of resources are the focus of discussion. Performance against the targets will be assessed and reported monthly, briefed quarterly to the ERPB, and rolled up into the JWFC Joint Training End-of-Fiscal Year Performance Report to ensure transparency and accountability.		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0804767D8Z: TRAINING TRANSFORMATION (T2)				PROJECT 761: JOINT SIMULATION SYSTEMS (JSS)			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
761: JOINT SIMULATION SYSTEMS (JSS)	0.000	7.310	7.208	0.000	7.208	7.203	7.376	7.482	7.597	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification The Secretary of Defense Program Decision Memorandum dated 12 Dec 2003 tasked USJFCOM with the responsibility of maintaining JSS software and establishing a Software Support Facility at the Joint Warfighting Center, This program supports the development of capabilities in Joint simulations to eliminate COCOM identified training gaps.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
P761 Joint Simulation System (JSS) FY 2010 Plans: • Increase US coalition training by providing technical support towards the development of an architecture for a coalition live, virtual, and constructive capability. • Develop a logistics capability that replicates deployment, medical and maintenance operations. • Continues to integrate Service models into a seamless “One World” Global Synthetic Training Environment. • Develop one simulation federation capable of joint and unified action to support the Joint Training Enterprise (includes coalition and interagency partners). • Develop a Global Missile Defense simulation capability. • Develop enhancements to constructive simulation models to support integration with virtual simulators and live instrumented forces.							0.000	7.310	7.208	0.000	7.208

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense				DATE: February 2010		
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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<i>FY 2011 Base Plans:</i> • Increase US coalition training by providing technical support towards the development of an architecture for a coalition live, virtual, and constructive capability. • Develop a logistics capability that replicates deployment, medical and maintenance operations. • Continues to integrate Service models into a seamless “One World” Global Synthetic Training Environment. • Develop one simulation federation capable of joint and unified action to support the Joint Training Enterprise (includes coalition and interagency partners). • Develop a Global Missile Defense simulation capability. • Develop enhancements to constructive simulation models to support integration with virtual simulators and live instrumented forces <i>FY 2011 OCO Plans:</i> N/A						
Accomplishments/Planned Programs Subtotals		0.000	7.310	7.208	0.000	7.208
C. Other Program Funding Summary (\$ in Millions) N/A						
D. Acquisition Strategy N/A						
E. Performance Metrics : The USJFCOM Joint Warfighting Center (JWFC) Joint Force Trainer Enterprise Resource Planning Board (JFT ERPB) established in FY07 reviews all RDT&E equities. The JFT ERPB consists of senior technical, operational, program manager, and stake holder representatives within the Joint Force Trainer Community. The board’s responsibilities encompass merging and prioritizing technical training requirements. It apportions work to the RDT&E elements based on an assessment of where the work is best accomplished. The board will evaluate the efficacy of development efforts based on performance metrics and will vote on whether or not to						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0804767D8Z: <i>TRAINING TRANSFORMATION (T2)</i>	PROJECT 761: <i>JOINT SIMULATION SYSTEMS (JSS)</i>
continue the effort. This process will ensure the Joint Force Trainer capabilities development effort synchronizes with warfighter requirements. Performance metrics include, but are not limited to; time, money, realism, and fidelity as defined below: • Time – Will the effort enable the Joint Force Trainer to prepare and execute training more timely than current capabilities allow? • Cost – Will the effort enable the Joint Force Trainer to prepare and execute training at a more effective and efficient cost than current capabilities allow? • Realism – Will the effort enable the Joint Force Trainer to create a training environment that is closer to the real world environment than current capabilities allow? • Fidelity – Will the effort enable the Joint Force Trainer to create more detailed capabilities in the training environment than current capabilities allow? The ERPB is the strategic management forum where the outcomes of performance relative to our external customers, stakeholders, and strategic stewardship of resources are the focus of discussion. Performance against the targets will be assessed and reported monthly, briefed quarterly to the ERPB, and rolled up into the JWFC Joint Training End-of-Fiscal Year Performance Report to ensure transparency and accountability.		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0804767D8Z: TRAINING TRANSFORMATION (T2)				PROJECT 764: IRREGULAR WARFARE (IW)			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
764: IRREGULAR WARFARE (IW)	0.000	3.700	17.772	0.000	17.772	18.229	18.690	19.147	19.605	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
An immediate and critical need exists for small combat unit, Irregular Warfare immersive training solutions. Front line soldiers and marines from conventional, General Purpose Forces suffer 85% of the casualties in Operation Iraqi Freedom and Operation Enduring Freedom. The U.S. military's dominance in traditional modes of combat has forced its adversaries to master irregular, hybrid, and asymmetric tactics. Moreover, mega-urbanization, large numbers of noncombatants, and the dynamic information environment increase the complexity of the overall IW environment. Meeting these current and future challenges requires better trained, more capable, and tactically enhanced small combat units. These small units and their leaders must be able to make timely, ethical and values based decisions that carry strategic implications. The leaders and staffs that employ these small units must understand their role in supporting these units during simultaneous kinetic and non-kinetic operations in a complex and dynamic human terrain based battlefield. The Department of Defense (DoD) must train and broadly educate these joint units, staffs, and leaders to understand cultures and populations, to thrive in chaotic environments, to recognize and respond creatively to dynamic and demanding situations, and to operate with coalition, interagency, and host nation partners as the norm and not the exception. To accomplish these IW training objectives, the DoD requires training facilities that fully immerse units, leaders, and staffs in live, virtual, and constructive training environments that replicate, as closely as possible, the overall IW environment. These training facilities must allow the unit to utilize the full range of assets that will be available to them in actual missions including their individual equipment, individual and crew-served weapons, command and control systems, navigation systems, and target location/ designation systems. While home station based, these facilities will link joint enablers such as Intelligence, Surveillance & Reconnaissance and joint fires from many different locations across the joint force, as well as other home station units that are conducting immersion training simultaneously. This strategy will leverage and integrate the existing and emerging Coalition, Inter-agency, Service and COCOM capabilities.											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
P764 Irregular Warfare							0.000	3.700	17.772	0.000	17.772

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B. Accomplishments/Planned Program (\$ in Millions)											
			FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total				
FY 2010 Plans: • Conduct analysis to determine the IW training requirements and identify shortfalls / gaps in meeting those requirements. • Determine best practices and identify opportunities for leveraging existing training programs. • Develop overarching framework and concept of operations for conducting IW training. • Develop proof of concept IW training systems and deliver initial enhancements to existing Service programs. • Integrate Service training programs to conduct distributed Joint training.											
FY 2011 Base Plans: • Conduct analysis to determine the IW training requirements and identify shortfalls / gaps in meeting those requirements. • Determine best practices and identify opportunities for leveraging existing training programs. • Develop overarching framework and concept of operations for conducting IW training. • Develop proof of concept IW training systems and deliver initial enhancements to existing Service programs. • Integrate Service training programs to conduct distributed Joint training											
Accomplishments/Planned Programs Subtotals			0.000	3.700	17.772	0.000	17.772				
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0804767D8Z: IW O&M Funding		2.625								Continuing	Continuing
		1.190								Continuing	Continuing

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C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0804767D8Z-: IW Procurement Funding											
D. Acquisition Strategy N/A											
E. Performance Metrics The USJFCOM Joint Warfighting Center (JWFC) Joint Force Trainer Enterprise Resource Planning Board (JFT ERPB) established in FY07 reviews all RDT&E equities. The JFT ERPB consists of senior technical, operational, program manager, and stake holder representatives within the Joint Force Trainer Community. The board's responsibilities encompass merging and prioritizing technical training requirements. It apportions work to the RDT&E elements based on an assessment of where the work is best accomplished. The board will evaluate the efficacy of development efforts based on performance metrics and will vote on whether or not to continue the effort. This process will ensure the Joint Force Trainer capabilities development effort synchronizes with warfighter requirements. Performance metrics include, but are not limited to; time, money, realism, and fidelity as defined below: • Time – Will the effort enable the Joint Force Trainer to prepare and execute training more timely than current capabilities allow? • Cost – Will the effort enable the Joint Force Trainer to prepare and execute training at a more effective and efficient cost than current capabilities allow? • Realism – Will the effort enable the Joint Force Trainer to create a training environment that is closer to the real world environment than current capabilities allow? • Fidelity – Will the effort enable the Joint Force Trainer to create more detailed capabilities in the training environment than current capabilities allow? The ERPB is the strategic management forum where the outcomes of performance relative to our external customers, stakeholders, and strategic stewardship of resources are the focus of discussion. Performance against the targets will be assessed and reported monthly, briefed quarterly to the ERPB, and rolled up into the JWFC Joint Training End-of-Fiscal Year Performance Report to ensure transparency and accountability.											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0804767D8Z: <i>TRAINING TRANSFORMATION (T2)</i>				PROJECT 769: <i>JOINT KNOWLEDGE DEVELOPMENT & DISTRIBUTION CAPABILITY (JKDDC)</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
769: <i>JOINT KNOWLEDGE DEVELOPMENT & DISTRIBUTION CAPABILITY (JKDDC)</i>	0.000	2.170	2.194	0.000	2.194	2.234	2.272	2.307	2.341	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification The Department's requirement is to develop a Joint Individual Training Toolkit of web enabled individual and small group training products and services. Products and services are developed in response to JKDDC stakeholder (COCOMs, Services, and Combat Support Agencies) prioritized training requirements. JKDDC supports a career-long joint learning continuum, joint professional military education and tailored common training standards to Service members for tasks that are jointly executed, resulting in trained, capable, and interoperable joint forces. This supports advanced technology development and enhancement for the Joint Advanced Distributive Learning training community. JKDDC advanced technology initiatives principally include the Virtual Cultural Awareness Training (VCAT) web-based gaming and Small Group ScenarioTrainer (SGST), both accessible via the Joint Knowledge Online (JKO) Learning Management System (LMS). This capability facilitates the training and preparation of tens of thousands of military and civilian personnel deployment to combat theaters of operation prior to serving in their assigned Joint Task Force (JTF) billets. Specifically, VCAT supports one of the top three identified training shortcomings of returning warriors from United States Central Command (CENTCOM) based JTFs (cultural awareness training). JTF 'battle staffs' will be adequately trained, warriors as individuals and the staffs collectively, based on SGST development, overcoming existent training inadequacies for joint warriors. Significant training deficiencies will be mitigated in critical 'go to war'.											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
P769 Joint Knowledge Development & Distribution Capability (JKDDC)						0.000	2.170	2.194	0.000	2.194	
<i>FY 2010 Plans:</i> Will develop Virtual Cultural Awareness Training (VCAT) version 2 web-based game, originally developed with JFCOM Training Capability Analysis of Alternatives RDT&E funding in FY08. Version 2 of this web-based game will enhance joint warrior provided recommendations from version 1,											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense				DATE: February 2010				
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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
expand the number of training audience areas of responsibility (AOR) environment to two, expand the operational mission sets to four, and expand the cultural scenarios to two, while simultaneously demonstrating an improved capability to deliver training via an innovative training technique. The training readiness and tactical proficiency of thousands of individual augmentees deploying to Central Command AOR will be improved via this JKO provided training enabling toolset. - Operationalize training stimulation by developing Immersive Learning Environments (ILES) version 2 of the ILES “battle staff”, a small group training capability focused on improving the training readiness of individuals and small joint headquarters staffs. Version 1 prototype was developed with JFCOM Training Capability Analysis of Alternatives RDT&E funding in FY08. Version 2 will enhance joint warrior provided recommendations from version 1, and target development of three additional - ILES use cases for representative Joint Task Force (JTF) staffs, all designed to complement existing Combatant Command mission rehearsal exercises in preparation for deployment to combat theaters of operation. Thousands of joint, interagency, intergovernmental and multinational participants will be better trained as individuals and collectively as small teams prior to and during deployment in hostile environments. Will provide direct customized instruction or feedback through Intelligent Tutor/Avatars Advanced Technologies software embedded in learning stimulation to students without the intervention of human beings in a web-based training course. Intent is to collaboratively enhance ten JKO web-based training courses with the Advanced Distributed Learning Co-Lab (ADL Co-Lab) by creating instantiations of adaptable intelligent tutor enabled courses delivered by JKO. Learning return on investment is significant as published academic research states that learning retention, effectiveness and efficiency can increase by as much as 80% via intelligent tutor/avatar embedded courseware. <i>FY 2011 Base Plans:</i> - Will develop Virtual Cultural Awareness Training (VCAT) version 2 web-based game, originally developed with JFCOM Training Capability Analysis of Alternatives RDT&E funding in FY08. Version 2 of this web-based game will enhance joint warrior provided recommendations from version 1, expand the number of training audience areas of responsibility (AOR) environment to two, expand								

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense				DATE: February 2010		
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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
the operational mission sets to four, and expand the cultural scenarios to two, while simultaneously demonstrating an improved capability to deliver training via an innovative training technique. The training readiness and tactical proficiency of thousands of individual augmentees deploying to Central Command AOR will be improved via this JKO provided training enabling toolset. Operationalize training stimulation by developing Immersive Learning Environments (ILES) version 2 of the ILES “battle staff”, a small group training capability focused on improving the training readiness of individuals and small joint headquarters staffs. Version 1 prototype was developed with JFCOM Training Capability Analysis of Alternatives RDT&E funding in FY08. Version 2 will enhance joint warrior provided recommendations from version 1, and target development of three additional - ILES use cases for representative Joint Task Force (JTF) staffs, all designed to complement existing Combatant Command mission rehearsal exercises in preparation for deployment to combat theaters of operation. Thousands of joint, interagency, intergovernmental and multinational participants will be better trained as individuals and collectively as small teams prior to and during deployment in hostile environments. Will provide direct customized instruction or feedback through Intelligent Tutor/Avatars Advanced Technologies software embedded in learning stimulation to students without the intervention of human beings in a web-based training course. Intent is to collaboratively enhance ten JKO web-based training courses with the Advanced Distributed Learning Co-Lab (ADL Co-Lab) by creating instantiations of adaptable intelligent tutor enabled courses delivered by JKO. Learning return on investment is significant as published academic research states that learning retention, effectiveness and efficiency can increase by as much as 80% via intelligent tutor/avatar embedded courseware.						
FY 2011 OCO Plans: N/A						
Accomplishments/Planned Programs Subtotals		0.000	2.170	2.194	0.000	2.194

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense										DATE: February 2010	
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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• 0804767D8Z: JKDDC O&M Funding		6.840								Continuing	Continuing
• 0804767D8Z-: JKDDC Procurement Funding		0.270								Continuing	Continuing
D. Acquisition Strategy N/A											
E. Performance Metrics											
The USJFCOM Joint Warfighting Center (JWFC) Joint Force Trainer Enterprise Resource Planning Board (JFT ERPB) established in FY07 reviews all RDT&E equities. The JFT ERPB consists of senior technical, operational, program manager, and stake holder representatives within the Joint Force Trainer Community. The board’s responsibilities encompass merging and prioritizing technical training requirements. It apportions work to the RDT&E elements based on an assessment of where the work is best accomplished. The board will evaluate the efficacy of development efforts based on performance metrics and will vote on whether or not to continue the effort. This process will ensure the Joint Force Trainer capabilities development effort synchronizes with warfighter requirements. Performance metrics include, but are not limited to; time, money, realism, and fidelity as defined below: • Time – Will the effort enable the Joint Force Trainer to prepare and execute training more timely than current capabilities allow? • Cost – Will the effort enable the Joint Force Trainer to prepare and execute training at a more effective and efficient cost than current capabilities allow? • Realism – Will the effort enable the Joint Force Trainer to create a training environment that is closer to the real world environment than current capabilities allow? • Fidelity – Will the effort enable the Joint Force Trainer to create more detailed capabilities in the training environment than current capabilities allow? The ERPB is the strategic management forum where the outcomes of performance relative to our external customers, stakeholders, and strategic stewardship of resources are the focus of discussion. Performance against the targets will be assessed and reported monthly, briefed quarterly to the ERPB, and rolled up into the JWFC Joint Training End-of-Fiscal Year Performance Report to ensure transparency and accountability.											

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
760: <i>Congressional Transactions</i>	0.000	6.069	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification Congressional transactions; COCOM Exercise Engagement & Training Transformation Appn Conference \$6.4M less Section 8025(f) (-.161), less Section 8104 Economic Assumptions (-.170).											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
P760 Congressional Transactions <i>FY 2010 Plans:</i> Not applicable							0.000	6.069	0.000	0.000	0.000
Accomplishments/Planned Programs Subtotals							0.000	6.069	0.000	0.000	0.000
C. Other Program Funding Summary (\$ in Millions) N/A											
D. Acquisition Strategy N/A											
E. Performance Metrics N/A											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0804767D8Z: <i>TRAINING TRANSFORMATION (T2)</i>				PROJECT 770: <i>U.S. Forces Korea Training and Exercise Support</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
770: <i>U.S. Forces Korea Training and Exercise Support</i>	0.000	0.000	10.211	0.000	10.211	10.382	10.024	7.446	4.527	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

USFK requires an updated Joint and Combined Training Environment in order to complete their transition by 2012. USFK's current federation of models, including the overarching Joint Training Transformation Initiative Korea is used only at USFK, no longer has Service or JWFC support, does not meet Coalition interoperability requirements, and cannot fully utilize the Joint Live Virtual Constructive (JLVC) Federation's capabilities. USJFCOM will initially conduct technical planning and individual simulation software development in order to complete the detailed technical planning that enables individual simulations to develop their necessary software. USJFCOM, in collaboration with USFK and appropriate Republic of Korea agencies, will then ingrate War Simulation (WARSIM) into the JLVC Training Federation in order to field a functioning JLVC federation to USFK. This new training environment will support the extensive ground order of battle required to accurately simulate operations on the Korean Peninsula. It also maximizes existing JLVC training standards and investments, and fully leverages Service training capabilities and roadmaps. This solution will provide the initial effort to link coalition training architectures into the JLVC as well. It will also promotes the Joint Training Environment vision and goals as described in the draft DoDI 1322.xx and 1322.yy and implement selected pieces of recommendations identified in the LVC report, the Flagship Study.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
USFK Training & Exercise	0.000	0.000	10.211	0.000	10.211
• Purchase WARSIM Test Suite. • Complete Technical planning to include development of detailed implementation plan. • Determine WARSIM Data Initialization requirements. • Conduct WARSIM Scalability Experiment. • Develop network evaluation and implementation plan and timeline. • Initial software development for JLVC simulations.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense				DATE: February 2010	
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B. Accomplishments/Planned Program (\$ in Millions)					
				FY 2009	FY 2010
				FY 2011 Base	FY 2011 OCO
				FY 2011 Total	
<i>FY 2009 Accomplishments:</i> [*** PLEASE ENTER ACCOMPLISHMENT/PLANNED PROGRAM TEXT FOR PRIOR YEAR. ***]					
<i>FY 2011 Base Plans:</i> • Purchase WARSIM Test Suite. • Complete Technical planning to include development of detailed implementation plan. • Determine WARSIM Data Initialization requirements. • Conduct WARSIM Scalability Experiment. • Develop network evaluation and implementation plan and timeline. • Initial software development for JLVLC simulations.					
Accomplishments/Planned Programs Subtotals				0.000	0.000
				10.211	0.000
				10.211	
				FY 2009	FY 2010
Congressional Add: *** PLEASE ENTER CONGRESSIONAL ADD TITLE ***				0.000	0.000
<i>FY 2009 Accomplishments:</i> [*** PLEASE ENTER CONGRESSIONAL ADD TEXT FOR PRIOR YEAR. ***]					
Congressional Adds Subtotals				0.000	0.000
C. Other Program Funding Summary (\$ in Millions)					
N/A					
D. Acquisition Strategy					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense		DATE: February 2010
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E. Performance Metrics *** PLEASE ENTER TEXT ***		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0804767D8Z: TRAINING TRANSFORMATION (T2)				PROJECT 754: Immersive Simulation			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
754: Immersive Simulation	0.000	0.000	33.315	0.000	33.315	33.313	39.967	19.969	21.623	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
: The immersive training simulator is a small unit, infantry focused, scalable, interactive, and rapidly reconfigurable training system that will replicate elements of the visual, audio, tactile, weather (temperature and humidity), olfactory effects, and conditions of a distributed battlefield across the gamut of operations to improve higher order cognitive decision making skills. This simulator will create dynamic and realistic conditions to facilitate accomplishment of small unit dismounted individual, collective, leader training tasks and goals within a complex environment while operating in a distributed fashion. This initiative will also incorporate best of breed lessons learned across a range of military activities that include cultural and language complexities and embraces inclusion of joint capabilities (e.g. joint fires; intelligence, surveillance and reconnaissance (ISR); counter-IED; command and control, information operations; personnel recovery; individual and small unit combat identification; logistics; medical; and force protection).											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Immersive Simulation							0.000	0.000	33.315	0.000	33.315
FY11 Plans											
• Develop a strategic design and engineering plan to build two close combat/infantry immersive simulators.											
• Design and test an evaluation plan to ensure efficacy of the effort.											
• Develop a rapid prototyping document describing fundamentals and outlining coordination of this close combat/infantry immersive training simulator, to ensure DoD-wide awareness.											
• Develop a facility plan and acquire space for a fully enclosed training facility area that accommodates platoon/squad elements and adapts to other small units in future environments, with additional working space for control/operations functions, classroom, after action and rehearsal capacity, and storage/admin space.											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Office of Secretary Of Defense				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 6: RDT&E Management Support		R-1 ITEM NOMENCLATURE PE 0804767D8Z: TRAINING TRANSFORMATION (T2)		PROJECT 754: Immersive Simulation		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
• Develop innovative training approaches, strategies, and methodologies for essential personnel, logistics and support structure to meet training requirements and instructions. • Develop a simulator capable of replicating joint capabilities, Afghanistan theater C2 architecture and data/voice links to other select simulators and facilities. • Achieve realistic sounds and visual cues replicating ambient noise and visual stimulus. • Develop an initial capability that advances two and three dimensional displays, capable of creating realistic projected virtual entities with Afghanistan cultural and language abilities; fully integrated with select role players and, realistic weapon's effects during force on force actions. • Develop and build an initial prototype individual tracking of trainees/role players, weapons locations and trainee head orientation. The after action report (AAR) system will use and integrate scenario development or mission rehearsal tools in order to automate data capture of significant training decision events. • Develop sophisticated measurement and assessment systems that records and plays back each trainee, role player, and simulated entities movements, orientation, and communications. • Develop an initial prototype responsive integrating scenario generation software tool, linked to Mission Essential Task List based training standards, cognitive decision requirement standards, and innovative instructional tools. • Develop a realistic static and reconfigurable training structure, to include multi-story structures, and an ability to support future power and infrastructure upgrades. • Develop an initial prototype simulator capable of creating limited environmental conditions (wind, heat & cold) and designed to accept future environmental capabilities, such as humidity and rain. FY 2009 Accomplishments: [*** PLEASE ENTER ACCOMPLISHMENT/PLANNED PROGRAM TEXT FOR PRIOR YEAR. ***] FY 2011 Base Plans: • Develop a strategic design and engineering plan to build two close combat/infantry immersive simulators.						

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
• Design and test an evaluation plan to ensure efficacy of the effort. • Develop a rapid prototyping document describing fundamentals and outlining coordination of this close combat/infantry immersive training simulator, to ensure DoD-wide awareness. • Develop a facility plan and acquire space for a fully enclosed training facility area that accommodates platoon/squad elements and adapts to other small units in future environments, with additional working space for control/operations functions, classroom, after action and rehearsal capacity, and storage/admin space. • Develop innovative training approaches, strategies, and methodologies for essential personnel, logistics and support structure to meet training requirements and instructions. • Develop a simulator capable of replicating joint capabilities, Afghanistan theater C2 architecture and data/voice links to other select simulators and facilities. • Achieve realistic sounds and visual cues replicating ambient noise and visual stimulus. • Develop an initial capability that advances two and three dimensional displays, capable of creating realistic projected virtual entities with Afghanistan cultural and language abilities; fully integrated with select role players and, realistic weapon's effects during force on force actions. • Develop and build an initial prototype individual tracking of trainees/role players, weapons locations and trainee head orientation. The after action report (AAR) system will use and integrate scenario development or mission rehearsal tools in order to automate data capture of significant training decision events. • Develop sophisticated measurement and assessment systems that records and plays back each trainee, role player, and simulated entities movements, orientation, and communications. • Develop an initial prototype responsive integrating scenario generation software tool, linked to Mission Essential Task List based training standards, cognitive decision requirement standards, and innovative instructional tools. • Develop a realistic static and reconfigurable training structure, to include multi-story structures, and an ability to support future power and infrastructure upgrades. • Develop an initial prototype simulator capable of creating limited environmental conditions (wind, heat & cold) and designed to accept future environmental capabilities, such as humidity and rain.						

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B. Accomplishments/Planned Program (\$ in Millions)					
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO
Accomplishments/Planned Programs Subtotals		0.000	0.000	33.315	0.000
		FY 2009	FY 2010		
Congressional Add: *** PLEASE ENTER CONGRESSIONAL ADD TITLE *** <i>FY 2009 Accomplishments:</i> [*** PLEASE ENTER CONGRESSIONAL ADD TEXT FOR PRIOR YEAR. ***]		0.000	0.000		
Congressional Adds Subtotals		0.000	0.000		
C. Other Program Funding Summary (\$ in Millions) N/A					
D. Acquisition Strategy N/A					
E. Performance Metrics *** PLEASE ENTER TEXT ***					

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