Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

PE 0604715A: Non-System Training Devices - Eng Dev

BA 5: Development & Demonstration (SDD)

COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	29.187	27.756	30.021	-	30.021	44.483	33.909	38.513	35.746	Continuing	Continuing
241: NSTD COMBINED ARMS	27.151	25.063	24.869	-	24.869	39.231	28.346	32.534	29.002	Continuing	Continuing
573: Program Executive Office Simulation, Training SPT	2.036	2.693	5.152	-	5.152	5.252	5.563	5.979	6.744	Continuing	Continuing

Note

None required.

A. Mission Description and Budget Item Justification

Program Element funds development of Non-System Training Devices to support force-on-force training at the Combat Training Centers (CTC), general military training, and training on more than one item/system, as compared with system devices which are developed in support of a specific item/weapon system. Training devices and training simulations contribute to the modernization of the forces by enabling and strengthening combat effectiveness through realistic training solutions for the Warfighter. Training devices maximize the transfer of knowledge, skills, and experience from the training situation to a combat situation. Force-on-force training at the National Training Center (NTC), Ft. Irwin, CA; Joint Readiness Training Center (JRTC), Ft. Polk, LA, and Joint Multinational Readiness Center (JMRC), formerly the Combat Maneuver Training Center (CMTC), Hohenfels, Germany; and battle staff training in Battle Command Training Program (BCTP) provide increased combat readiness through realistic collective training in low, mid, and high intensity scenarios. Project 241, Non-System Training Devices-Combined Arms, develops simulation training devices for Army-wide use, including the CTCs. Project 573 funds key organizational support to Army/DoD Transformation via innovative simulation and training device efforts. Program Executive Office (PEO) Simulation, Training and Instrumentation (STRI's) unique geographic co-location with other services facilitates joint training solutions in a common environment.

FY12 Project 241 funds significant development efforts on the Combat Training Center Instrumentation Systems (CTC-IS), Homestation Instrumentation Training System (HITS), Engagement Skills Trainer 2000 (EST 2000), Medical Simulation Training Center (MSTC), Target Modernization, Live Tactical Engagement Simulation System (L-TESS) formerly NLOS and formerly OneTESS, and further implementation of Live Training Transformation (LT2) through development of the Common Training Instrumentation Architecture (CTIA); enabling Joint training with the Joint Forces Command. FY12 program funding will support Live, Virtual, Constructive Integrating Architecture (LVC-IA) Increment 2 and expand the capability of the LVC Integrated Training Environment (ITE).

FY12 Project 573 will provide for minimum PEO STRI core operations supporting development of training devices and simulations by PEO STRI Project Managers (PM TRADE, PM ITTS, PM CATT, and PM Constructive Simulation).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army

APPROPRIATION/BUDGET ACTIVITY
2040: Research, Development, Test & Evaluation, Army
BA 5: Development & Demonstration (SDD)

DATE: February 2011

R-1 ITEM NOMENCLATURE
PE 0604715A: Non-System Training Devices - Eng Dev

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	30.052	27.756	27.748	-	27.748
Current President's Budget	29.187	27.756	30.021	-	30.021
Total Adjustments	-0.865	-	2.273	-	2.273
 Congressional General Reductions 		-			
 Congressional Directed Reductions 		-			
 Congressional Rescissions 	-	-			
 Congressional Adds 		-			
 Congressional Directed Transfers 		-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-0.865	-			
 Adjustments to Budget Years 	-	-	2.273	-	2.273

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army						DATE: February 2011					
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)								PROJECT 241: NSTD	41: NSTD COMBINED ARMS		
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
241: NSTD COMBINED ARMS	27.151	25.063	24.869	-	24.869	39.231	28.346	32.534	29.002	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports development of prototype training devices to support Combined Arms (Infantry, Armor, Aviation, Air Defense, Artillery, Engineer, Chemical, and Support troops) training and multi-system training within the Army, to include the Reserve Components.

Live Tactical Engagement Simulation System (L-TESS) formerly One Tactical Engagement Simulation System (OneTESS) and Non Line of Sight (NLOS) will provide a live, precision, combined arms Force-on-Force and Force-on-Target Non-Line of Sight (NLOS) training capability for Brigade and below exercises, at Homestation, Maneuver Combat Training Centers, deployed sites, and will be interoperable with current and future Instrumentable-Multiple Integrated Laser Engagement System (I-MILES) Line of Sight (LOS) laser based systems. L-TESS will provide realistic, real-time casualty effects for Force-on-Force tactical engagement training scenarios and the ability to integrate into training instrumentation systems to provide for high fidelity combined arms combat exercises.

The Common Training Instrumentation Architecture (CTIA) provides the common product-line architecture, product line software, standards, services, and architecture framework for developing the Live Training Transformation (LT2) Product Line of live training systems supporting Army-wide live instrumented Force-On-Force (FOF) and Force-On-Target (FOT) training requirements and is the core live architecture for the Live, Virtual, Constructive Integrated Training Environment (LVC-ITE). CTIA is a developmental, evolutionary acquisition program that continues to provide developmental support for the LT2 Product line live training systems and provides the live training architecture standard for achieving interoperability between live training systems and Live, Virtual, Constructive-Integrating Architecture (LVC-IA), battle command and control (C2) systems and the Test and Training Enabling Architecture (TENA).

Combat Training Center Instrumentation System (CTC-IS) funds the continued development of the Range Communication System at the National Training Center (NTC), to provide high-fidelity live, virtual, and constructive brigade training rotations which prepare Brigade Combat Teams, Joint partners, and supporting units to deploy in support of Army Force Generation (ARFORGEN). CTC-IS develops new data communications systems increasing tracking accuracy and coverage at the CTCs to provide greater training fidelity to training units. CTC-IS also develops infrastructure to host Future Army requirements.

The Engagement Skills Trainer (EST 2000) is an indoor, small arms, marksmanship training simulator for individuals and groups with a standard mix of light, heavy and crew-served weapons used in Overseas Contingency Operations (OCO). The EST 2000 provides training for individual marksmanship, small unit collective gunnery skills and tactical training. It incorporates judgmental use of force, including escalation of force and graduated response scenarios.

The Medical Simulation Training Center (MSTC) program provides a standardized combat medical training capability and supports Combat Lifesaver training for Active, Reserve and National Guard components, while being capable of training Joint, Interdepartmental, and Coalition Partner organizations to better prepare personnel for medical interventions under combat conditions. Each MSTC system is made of sub-systems, to include the Virtual Patient System (VPS) and the Medical Training Evaluation and Review (MeTER) system. The VPS contains multiple training devices, delivering increasing degrees of fidelity and trauma patient responses. MeTER

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604715A: Non-System Training Devices -	241: <i>NSTD</i>	COMBINED ARMS
BA 5: Development & Demonstration (SDD)	Ena Dev		

provides networked training and training management, with instruction and performance tracking/reporting capability. The MSTC system combines training devices, standardized programs of instruction, skilled instructors, adaptive scenarios, and tactical lane training into a cohesive, standardized, training platform for combat medicine.

The Live, Virtual, Constructive Integrating Architecture (LVC-IA) provides net-centric linkage that collects, retrieves and exchanges data among LVC Training Aids, Devices, Simulations, and Simulators (TADSS) and Joint/Army Battle Command Systems leading to an LVC Integrated Training Environment (ITE). The LVC-IA defines "how" information is exchanged among LVC domains and Battle Command Systems. The LVC Integrating Architecture includes common LVC components such as Enterprise After Action Review (AAR), Command and Control (C2) Adapters, Terrain Databases, Multi-level Security, and Hardware/Software. The integration of Live, Virtual, and Constructive TADSS with Battle Command will enable larger, more robust, and rich training events at reduced cost. The end-state goal is an LVC Integrated Training Environment that approximates the Operating Environment and provides value-added training and mission rehearsal opportunities to Commanders and units.

The Homestation Instrumentation Training System (HITS) provides a high-fidelity deployable instrumented training capability to support platoon thru battalion level Live Force-on-Force Training. HITS tracks locations of soldiers and vehicles and simulates weapons effects and engagements, allowing units to Train as they Fight against live opponents. HITS provides accurate feedback to training units. HITS consists of light deployable components that can be rapidly assembled/disassembled and transported to support deployed training. HITS integrates with future and legacy I-MILES. HITS is a member of the LT2 family of training systems and shares several hardware and software components with the CTC-IS. HITS is required for the Live function of Live-Virtual-Constructive Integrated Training Environment.

The Target Modernization provides for the development of advanced training target related technologies focused on enhancing threat realism and engagement feedback, development of a non-contact hit sensor to support counter defilade and area effects training, and development/integration of alternate energy (Green) solutions. Target Modernization provides for the support of changes in doctrine/weapons and alignment to the CTIA Product-Line framework and LVC-ITE.

FY12 funds significant development efforts on the Combat Training Center Instrumentation Systems (CTC-IS), Homestation Instrumentation Training System (HITS), Engagement Skills Trainer 2000 (EST 2000), Medical Simulation Training Center (MSTC), Target Modernization, Live Tactical Engagement Simulation System (L-TESS) formerly NLOS and formerly OneTESS, and further implementation of Live Training Transformation (LT2) through development of the Common Training Instrumentation Architecture (CTIA); enabling Joint training with the Joint Forces Command.

FY12 program funding will support Live, Virtual, Constructive Integrating Architecture (LVC-IA) Increment 2 and expand the capability of the LVC Integrated Training Environment (ITE).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Common Training Instrumention	1.987	2.122	1.938
Architecture (CTIA) program.	0	0	
Articles:			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE	: February 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604715A: Non-System Training Devices - Eng Dev	PROJECT 241: NSTD COME	BINED ARMS	
B. Accomplishments/Planned Programs (\$ in Millions, Artic	le Quantities in Each <u>)</u>	FY 201	0 FY 2011	FY 2012
Description: Continue EMD phase contract activities for the CT	TA program to provide the common architecture capabiliti	es.		
FY 2010 Accomplishments: FY10: Continued development of CTIA to provide the common a fielding, technology and capability insertion for Live Training Systems (CTC-IS), Integrated Military Operation Instrumentation Systems (HITS), Digital Ranges Training System Constructive-Integrated Training Environment (LVC-ITE) intercept	stems (LTS) to include: the Combat Training Centers- ons in Urbanized Terrain Training System (IMTS), Home S m (DRTS) training instrumentation programs and the Live	Station		
FY 2011 Plans: FY11: Continue development of CTIA to provide the common as technology and capability insertion for Live Training Systems (L'Systems (CTC-IS), Integrated Military Operations in Urbanized Systems (HITS), Digital Ranges Training System (DRTS) training Integrated Training Environment (LVC-ITE) interoperability initial	TS) to include; the Combat Training Centers-Instrumentat Terrain Training System (IMTS), Home Station Instrumer ng instrumentation programs and the Live, Virtual, Constru	tion ntation		
FY 2012 Plans: FY12: Continue development of CTIA to provide the common as technology and capability insertion for Live Training Systems (L'Systems (CTC-IS), Integrated Military Operations in Urbanized Systems (HITS), Digital Ranges Training System (DRTS) training Integrated Training Environment (LVC-ITE) interoperability initial	TS) to include: the Combat Training Centers-Instrumentat Terrain Training System (IMTS), Home Station Instrumer ng instrumentation programs and the Live, Virtual, Constru	tion ntation		
Title: Engineering and Manufacturing Development (EMD) phase System (CTC-IS).		nentation 4.	4.518 0 0	
Description: Continue EMD phase contract activities for the CT	C-IS.			
FY 2010 Accomplishments: Combat Training Center Instrumentation System (CTC-IS) fundo Systems at the National Training Center (NTC), Joint Readiness (JMRC) increasing tracking coverage and accuracy in order to in	s Training Center (JRTC) and Joint Multinational Readine	ss Center		

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: Fel	oruary 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604715A: Non-System Training Devices - Eng Dev	PROJECT 241: NST	T D COMBINE	D ARMS	
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)		FY 2010	FY 2011	FY 2012
better prepare units for deployment. The Observer Controller (OC) unsupportable and present increasing risk to safety and the training		are			
FY 2011 Plans: Combat Training Center Instrumentation System (CTC-IS) funds the Systems at the National Training Center (NTC), Joint Readiness To (JMRC) increasing tracking coverage and accuracy in order to increasing tracking coverage and accuracy in order to increasing prepare units for deployment. The Observer Controller (OC) unsupportable and present increasing risk to safety and the training	raining Center (JRTC) and Joint Multinational Readine rease training fidelity for Brigade Combat Team rotation voice communication systems at the NTC and JMRC	ss Center is to			
FY 2012 Plans: Combat Training Center Instrumentation System (CTC-IS) funds the Systems at the National Training Center (NTC), Joint Readiness To (JMRC) increasing tracking coverage and accuracy in order to increase prepare units for deployment. Developing an improved videonew architecture components and LT2 standards.	raining Center (JRTC) and Joint Multinational Readine rease training fidelity for Brigade Combat Team rotation	ss Center is to			
Title: Government Program Management for the Combat Training		Articles:	0.430 0	0.449 0	0.54
Description: Government Program Management for the CTC IS p	program.				
FY 2010 Accomplishments: Program Management for the Combat Training Center Instrumenta	ation System (CTC-IS) program.				
FY 2011 Plans: Program Management for the Combat Training Center Instrumenta	ation System (CTC-IS) program.				
FY 2012 Plans: Program Management for the Combat Training Center Instrumenta	ation System (CTC-IS) program.				
Title: Engineering and Manufacturing Development (EMD) phase Instrumentation System (ETC-IS).	contract activity for the Exportable Training Capability-	A	4.836 0	-	-
Pagazintian, EMD phage contract activities for the ETC IS progre	m	Articles:			
Description: EMD phase contract activities for the ETC-IS progra	III.				
FY 2010 Accomplishments:					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: Fe	bruary 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604715A: Non-System Training Devices - Eng Dev	PROJECT 241: NST	D COMBINE	D ARMS	
B. Accomplishments/Planned Programs (\$ in Millions, Article	e Quantities in Each)		FY 2010	FY 2011	FY 2012
FY10: Exportable Training Capability-Instrumentation System (Eintegration, and testing of tracking capability, coverage and accultraining fidelity for Brigade Combat Team rotations to better prep	racy, and new Battle Command systems architecture to				
Title: Government Program Management for the Exportable Trai	ning Capability - Instrumentation System (ETC-IS) progr	am. <i>Articl</i> es:	0.164 0	-	-
Description: Government Program Management for the ETC-IS	program.				
FY 2010 Accomplishments: Program Management for the ETC-IS program.					
<i>Title:</i> Engineering and Manufacturing Development (EMD) phase System (HITS) program.	e contract activity for the Homestation Instrumentation Tr	raining	-	-	0.709
Description: EMD phase contract activities for the HITS program	n.				
FY 2012 Plans: FY12: Development of Homestation Instrumentation Training Syst and voice network. The Homestation Instrumentation Training S training capability to support platoon thru battalion level Live Force vehicles and simulates weapons effects and engagements, allow provides accurate feedback to training units. HITS consists of lights disassembled and transported to support deployed training. HITI Integrated Laser Engagement Systems (I-MILES). HITS is a me systems and shares several hardware and software components (CTC-IS) and Exportable Training Capability Instrumentation Systems constructive training integration.	ystem (HITS) provides a high-fidelity deployable instrum be-on-Force Training. HITS tracks locations of soldiers a ring units to Train as they Fight against live opponents. In the deployable components that can be rapidly assemble integrates with future and legacy Instrumentable, Multimber of the Live Training Transformation (LT2) family of with the Combat Training Center Instrumentation System (ETC-IS). HITS provides the Live domain for Live-Vertex and the second se	ented ind HITS d/ ple training m			
<i>Title:</i> Engineering and Manufacturing Development (EMD) phase (MSTC).	e contract activity for the Medical Simulation Training Ce	nter	-	-	1.340
Description: EMD phase contract activities for the MSTC progra	ım.				
FY 2012 Plans: Development within the Virtual Patient System (VPS) an effective capability and a Medical Training Evaluation and Review (MeTER					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: Fel	oruary 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604715A: Non-System Training Devices - Eng Dev	PROJECT 241: NST	D COMBINE	D ARMS	
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)		FY 2010	FY 2011	FY 2012
Knowledge Online to access the training and interoperate with the support remote site training.	e Virtual Patient System. Develop mobile training capabi	lity to			
Title: Government Program Management for the Medical Simulati	on Training Center (MSTC) program.		-	-	0.19
Description: Government Program Management for the MSTC page	rogram.				
FY 2012 Plans: Program management costs associated with the FY12 Medical Tr	aining Evaluation and Review (MeTER) system.				
<i>Title:</i> Engineering and Manufacturing Development (EMD) phase 2000) program.	contract activity for the Engagement Skills Trainer 2000) (EST	-	-	0.187
Description: EMD phase contract activities for the Engagement S	Skills Trainer 2000 (EST) program.				
FY 2012 Plans: EST 3D modeling to accurately portray all battlefield effects, in acc (COE), across the full range of military operations including: friend and procedures; all military recognized terrain; atmospheric and we equipment; dynamic, correlated terrain; the effects of munitions or	lly and enemy forces and their doctrine, tactics, technique ather conditions; specific enemy and friendly vehicles	ues			
Title: Government Program Management for the Engagement Sk	ills Trainer 2000 Program Management.		-	-	0.172
Description: Government Program Management for the EST 200	00 (EST) Program Management.				
FY 2012 Plans: Program management costs associated with the FY12 EST 3D me	odeling efforts.				
Title: Engineering and Manufacturing Development (EMD) phase Architecture (LVC-IA) program.	contract activity for the Live, Virtual, Constructive Integration	rating Articles:	5.572 0	6.008 0	6.134
Description: Continue EMD phase contract activities for the LVC-	-IA program.	Articles.			
FY 2010 Accomplishments: Developed system and performed design, development, integration Integrating Architecture (LVC-IA) Increment 1 capability.	on and demonstration of the Live, Virtual, Constructive				
FY 2011 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: Feb	oruary 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604715A: Non-System Training Devices - Eng Dev	PROJECT 241: NST	T D COMBINE	D ARMS	
B. Accomplishments/Planned Programs (\$ in Millions, Article	e Quantities in Each)		FY 2010	FY 2011	FY 2012
Continue to develop system and perform design, development, in Integrating Architecture (LVC-IA) Increment 1 capability. The LV FY 2012 Plans: LVC-IA Engineering and Manufacturing Development (EMD) phase	C Integrating Architecture includes common LVC components of Live, Virtual	nents.			
Constructive Training Aids, Devices and Simulations, Simulators LVC Integrated Training Environment (ITE). This will enable large					
Title: Government Program Management for the Live, Virtual, Co		Articles:	1.030 0	1.068 0	1.068
Description: Government Program Management for the LVC-IA	A program.				
FY 2010 Accomplishments: The Government Program Management Office for LVC-IA supposupported manpower, facilities and training.	orted the design and development of increment 1. Fundin	ng			
FY 2011 Plans: The Government Program Management Office for LVC-IA supportion LVC-IA. Funding supports manpower, facilities, training and open		: 1 of			
FY 2012 Plans: The Government Program Management Office for LVC-IA suppoincrement 2. Funding supports manpower, facilities, training, open		е			
Title: Government System Test and Evaluation for the Live, Virtu	, , , , , , , , , , , , , , , , , , , ,	m. <i>Articles:</i>	0.362 0	0.923 0	0.923
Description: Government System Test and Evaluation for the L'	VC-IA program.				
FY 2010 Accomplishments: FY10 LVC-IA test support on system design and development fo baseline and initiated planning, coordination activities for development.	•	gration			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: Fel	bruary 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604715A: <i>Non-System Training Devices - Eng Dev</i>	PROJECT 241: NSTL	COMBINE	D ARMS	
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)		FY 2010	FY 2011	FY 2012
FY11 LVC-IA continues test support on system design and developed components for LVC-IA with other Battle Command event (FIE), functional verification (FV) events for LVC-IA Builds (Systems and LVC Training Aids. Conduct federation in				
FY 2012 Plans: FY12 LVC-IA continue integration testing support on developed c Battle Command Systems. Conduct FIE, FV & system measuren Test Readiness Review (TRR) as well as Government Acceptance to include Developmental Testing (DT) and Operational Testing (Development (EMD) phase of Increment 2 on developed LVC-IA	nent of performance (SMP) events for LVC-IA Build 2. Co be Testing (GAT) to be executed as two phased approact OT). Further support the Engineering and Manufacturing	omplete h			
Title: Engineering and Manufacturing Development (EMD) phase	contract activity for theTarget Modernization program.	Articles:	-	2.303 0	1.63
Description: EMD phase contract activities for the Target Modern	nization program.				
FY 2011 Plans: FY11: Target Modernization initiates development of target system behavior), threat/friend identification, and training performance fewith Live Training Transformation (LT2) and Live, Virtual, and Control	edback mechanisms. Target Modernization initiates into				
FY 2012 Plans: FY12: Target Modernization continues development of target systemation, threat/friend identification, and training performance fee		and			
Title: Government Program Management for the Target Moderniz	zation program.	Articles:	-	0.273 0	0.179
Description: Government Program Management for Target Mode	ernization.				
FY 2011 Plans: Program Management for the Target Modernization program.					
FY 2012 Plans: Program Management for the Target Modernization program.					
<i>Title:</i> Engineering and Manufacturing Development (EMD) phase System (OneTESS) program.	contract activity for the One Tactical Engagement Simu	lation	6.951 0	7.289 0	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: Fel	oruary 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)		PROJECT 241: NST		COMBINED ARMS	
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)		FY 2010	FY 2011	FY 2012
Description: Continue EMD phase contract activities for OneTES		rticles:			
FY 2010 Accomplishments: FY10: Continued development of One Tactical Engagement Simu developed Future System/Joint, Live/Virtual and Constructive solutraining and testing communities into current combat systems under the combat systems under the combat systems.	utions and integrate operational testing that supported the				
FY 2011 Plans: FY11: Continues development of One Tactical Engagement Simudevelop Future System/Joint, Live/Virtual and Constructive solution and testing communities into current combat systems under development.	ons and integrate operational testing that supports the train	ning			
Title: Engineering and Manufacturing Development (EMD) phase System (L-TESS) program [formerly Non Line of Site (NLOS) are		tion	-	-	3.738
Description: Continue EMD phase contract activities for the L-TE	ESS(formerly NLOS) program.				
FY 2012 Plans: FY12: Continues development of Non Line of Sight (NLOS) capal Developmental Test/Operational Test (DT/OT) efforts that support development. Support Milestone C documentation.		า			
Title: Program Management for the NLOS (formerly OneTESS) p		rticles:	1.361 0	0.110 0	-
Description: Program Management for the NLOS (formerly One	ΓESS) program.				
FY 2010 Accomplishments: Government Program Management for the OneTESS program.					
FY 2011 Plans: Program Management for the NLOS (formerly OneTESS) program	m.				
Title: Governement Program Management for the Live Tactical E NLOS and OneTESS).	ngagement Simulation System (L-TESS) program (former	ly	-	-	1.294

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Army	DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604715A: Non-System Training Devices -	241: <i>NSTD</i>	COMBINED ARMS
BA 5: Development & Demonstration (SDD)	Eng Dev		

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Description: Government Program Management for the Live Tactical Engagement Simulation System (L-TESS) program (formerly NLOS and OneTESS).			
FY 2012 Plans: Government Program Management for the Live Tactical Engagement Simulation System (L-TESS) program (formerly NLOS and OneTESS).			
Accomplishments/Planned Programs Subtotals	27.151	25.063	24.869

C. Other Program Funding Summary (\$ in Millions)

	• •	,	FY 2012	FY 2012	FY 2012					Cost To	
<u>Line Item</u>	FY 2010	FY 2011	Base	OCO	<u>Total</u>	FY 2013	FY 2014	FY 2015	FY 2016	Complete	Total Cost
 NA0100: Training Devices, Non- 	348.251	325.824	168.392		168.392		207.568	187.136	188.579	Continuing	Continuing
System											
MA6601: CTC Support	85.319	23.400	133.178		133.178		152.651	145.307	97.573	Continuing	Continuing

D. Acquisition Strategy

Competitive development efforts based on performance specifications.

E. Performance Metrics

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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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

Army

R-1 ITEM NOMENCLATURE

PE 0604715A: Non-System Training Devices -

Eng Dev

DATE: February 2011

PROJECT

241: NSTD COMBINED ARMS

Management Services (\$ in Millio	ns)		FY 2	011	FY 2 Ba	2012 se	FY 2	2012 CO	FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
OneTESS Program Management	Various	PEO STRI:Orlando, FL	6.575	0.110		-		-		-	Continuing	Continuing	0.000
CTC-IS Program Management	Various	PEO STRI:Orlando, FL	-	0.449		0.544		-		0.544	Continuing	Continuing	Continuing
ETC-IS Program Management	Various	PEO STRI:Orlando, FL	-	-		-		-		-	Continuing	Continuing	0.000
HITS Program Management	Various	PEO STRI:Orlando, FL	0.400	-		-		-		-	Continuing	Continuing	0.000
LVC-IA Program Management	Various	PEO STRI:Orlando, FL	-	1.068		1.068		-		1.068	Continuing	Continuing	Continuing
EST 2000 Program Management	Various	PEO STRI:Orlando, FL	0.214	-		0.172		-		0.172	Continuing	Continuing	Continuing
MSTC Program Management	Various	PEO STRI:Orlando, FL	0.191	-		0.191		-		0.191	Continuing	Continuing	Continuing
Target Modernization	Various	PEO STRI:Orlando, FL	-	0.273		0.179		-		0.179	Continuing	Continuing	Continuing
L-TESS (formerly NLOS and OneTESS) Program Management	Various	PEO STRI,:Orlando, FL	-	-		1.294		-		1.294	Continuing	Continuing	Continuing
		Subtotal	7.380	1.900		3.448		-		3.448			

Product Development (\$ in Millio	ns)		FY 2	2011		2012 ise		2012 CO	FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
OneTESS	SS/CPFF	General Dynamics:Fairfax, VA	112.098	6.658		-		-		-	Continuing	Continuing	0.000
L-TESS (formerly NLOS and OneTESS)	SS/CPFF	General Dynamics:Orlando, FL	-	-		3.299		-		3.299	Continuing	Continuing	Continuing
CTIA	SS/CPFF	TBS:TBS	-	1.729		1.572		-		1.572	Continuing	Continuing	Continuing
CTIA	C/CPFF	Lockheed Martin Inc.:Orlando, FL	57.091	-		-		-		-	Continuing	Continuing	0.000
CTC-IS	SS/FFP	TBS:TBS	-	4.518		4.814		-		4.814	Continuing	Continuing	Continuing
ETC-IS	SS/CPFF	General Dynamics C4 Systems:Orlando, FL 32826	-	-		-		-		-	Continuing	Continuing	0.000
HITS	SS/CPFF	TBS:TBS	-	-		0.709		-		0.709	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604715A: Non-System Training Devices -

Eng Dev

DATE: February 2011

PROJECT

241: NSTD COMBINED ARMS

Product Development	(\$ in Millio	ns)		FY 2	011	FY 2 Bas		FY 2 OC		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
HITS	C/FFP	Riptide:Orlando, FL	1.379	-		-		-		-	Continuing	Continuing	0.00
MSTC Development	C/FP	Multiple:Various	0.732	-		1.340		-		1.340	Continuing	Continuing	Continuin
EST 2000 Development	SS/FP	Cubic Simulation Systems Division:Various	1.528	-		0.187		-		0.187	Continuing	Continuing	Continuin
Congressional Add Center of Excellence for Military Operations in Urban Terrain and Cultural Trn	C/FP	Multiple:Various	2.996	-		-		-		-	Continuing	Continuing	Continuin
LVC-IA Development	C/CPAF	Cole Engineering Services, Inc:Various	-	6.008		6.134		-		6.134	Continuing	Continuing	Continuin
Target Modernization	TBD	TBS:TBS	-	2.221		1.584		-		1.584	Continuing	Continuing	Continuin
		Subtotal	175.824	21.134		19.639		-		19.639			
Support (\$ in Millions)				FY 2	011	FY 2 Bas	-	FY 2		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
OneTESS				0.322		_		_		-	Continuing	Continuing	0.00
OneTESS	Various	Various:Orlando, FL	5.960	0.322		- 1						00	
	Various Various	Various:Orlando, FL Various:Various	5.960	0.082		0.054		-		0.054	Continuing	Continuing	Continuin
Target Modernization		,				0.054 0.366		-		0.054 0.366	Continuing Continuing		
Target Modernization CTIA L-TESS (former NLOS and	Various	Various:Various	-	0.082				-			Continuing	Continuing Continuing	Continuin
Target Modernization CTIA L-TESS (former NLOS and	Various Various	Various:Various Various:Various	-	0.082		0.366		- - -		0.366	Continuing	Continuing Continuing	Continuin
Target Modernization CTIA L-TESS (former NLOS and OneTESS)	Various Various Various	Various:Various Various:Various Various:Various Subtotal	10.597	0.082 0.393	011	0.366 0.262	-	- - - - FY 2		0.366 0.262	Continuing	Continuing Continuing	Continuin
Target Modernization CTIA L-TESS (former NLOS and OneTESS) Test and Evaluation (\$ Cost Category Item	Various Various Various	Various:Various Various:Various Various:Various Subtotal	10.597	0.082 0.393 - 0.797	011 Award Date	0.366 0.262 0.682	-	- - - FY 2		0.366 0.262 0.682 FY 2012	Continuing	Continuing Continuing	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army

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DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

2040: Research, Development, Test & Evaluation, Army

PE 0604715A: Non-System Training Devices -

241: NSTD COMBINED ARMS

BA 5: Development & Demonstration (SDD)

Eng Dev

Test and Evaluation (\$ i	n Millions	s)		FY 2	011	FY 2 Ba			2012 CO	FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
LVC-IA Test Support	Various	Multiple:Orlando, FL	-	0.923		0.923		-		0.923	Continuing	Continuing	Continuing
HITS	Various	Various:Orlando, FL	0.740	-		-		-		-	Continuing	Continuing	0.000
L-TESS (formerly NLOS and OneTESS) Test Support	Various	Multiple:Orlando, FL	-	-		0.177		-		0.177	Continuing	Continuing	Continuing
IEDES	MIPR	Multiple:Orlando, FL	0.519	-		-		-		-	Continuing	Continuing	0.000
		Subtotal	4.742	1.232		1.100		-		1.100			
			Total Prior Years Cost	FY 2	011	FY 2 Ba			2012 CO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
		Project Cost Totals	204.503	25.063		24.869		-		24.869			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army **DATE:** February 2011 APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT 2040: Research, Development, Test & Evaluation, Army PE 0604715A: Non-System Training Devices -241: NSTD COMBINED ARMS BA 5: Development & Demonstration (SDD) Eng Dev

		FY	2010)		FY 2	2011			FY 2	012			FY	201	3		FY	201	4		FY	201	15		FY	2016	;
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
L-TESS (formerly NLOS and OneTESS) MS C			•		•	•		,				,							•			·		·			•	
ETC IS (Phase 2) Development & Testing																												
HITS Development																												
EST 2000 Weapon Enhancement Development							J																					
LVC-IA - Increment 2 - EMD																												
LVC-IA - Increment 3 - EMD																												
MSTC MeTER Beta Test																												
MSTC MeTER Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army
BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE
PE 0604715A: Non-System Training Devices - Eng Dev

PROJECT
241: NSTD COMBINED ARMS

Schedule Details

	Start		E	nd
Events	Quarter	Year	Quarter	Year
L-TESS (formerly NLOS and OneTESS) MS C	3	2012	3	2012
ETC IS (Phase 2) Development & Testing	1	2010	3	2010
HITS Development	2	2012	3	2015
EST 2000 Weapon Enhancement Development	4	2011	3	2012
LVC-IA - Increment 2 - EMD	4	2011	3	2013
LVC-IA - Increment 3 - EMD	4	2013	3	2015
MSTC MeTER Beta Test	2	2010	3	2011
MSTC MeTER Development	4	2011	4	2013

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DATE: February 2011

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APPROPRIATION/BUDGET ACTIV 2040: Research, Development, Test BA 5: Development & Demonstration	& Evaluation	n, Army		R-1 ITEM N PE 0604715 Eng Dev	I OMENCLA 5A: <i>Non-Sys</i>		Devices -	PROJECT 573: Program Executive Office Simulatio Training SPT						
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost			
573: Program Executive Office Simulation, Training SPT	2.036	2.693	5.152	-	5.152	5.252	5.563	5.979	6.744	Continuing	Continuing			
Quantity of RDT&E Articles														

Note

A. Mission Description and Budget Item Justification

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army

In support of Non-System Training Devices (NSTD), this project funds the US Army Program Executive Officer Simulation, Training and Instrumentation (PEO STRI) core operations supporting development of training devices and simulations by PEO STRI project managers (PM TRADE, PM ITTS, PM CATT, PM Constructive Simulation and PM Future Force.) FY12 funds labor in support of PEO operations.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Government Program Management to support PEO STRI.	1.642	2.693	5.152
Articles:	0	0	
Description: Government Program Management to support PEO STRI.			
FY 2010 Accomplishments:			
Government Program Management to support PEO STRI labor for project managers in PM TRADE, PM ITTS, PM CATT, PM Constructive Simulation and PM Future Force (Simulation).			
FY 2011 Plans:			
Government Program Management to support PEO STRI labor for project managers in PM TRADE, PM ITTS, PM CATT, PM Constructive Simulation and PM Future Force (Simulation).			
FY 2012 Plans:			
Government Program Management to support PEO STRI labor for project managers in PM TRADE, PM ITTS, PM CATT, and PM Constructive Simulation.			
Title: Government Program Management to support the Brigade Combat Team Modernization (BCT-M).	0.394	-	-
Articles:	0		
Description: Government Program Management for three Department of the Army Civilians working in PM Future Force Simulation supporting Brigade Combat Team Modernization (BCT-M).			
Community Copperating England Community (201 ml).			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604715A: Non-System Training Devices -	573: Progra	nm Executive Office Simulation,
BA 5: Development & Demonstration (SDD)	Eng Dev	Training SP	PT .

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
FY 2010 Accomplishments: Public Law mandated the Army track FCS related work for accountability purposes. This funding represents salary dollars for three Department of the Army Civilians for the research and development of simulation systems to support the BCT-M.			
Accomplishments/Planned Programs Subtotals	2.036	2.693	5.152

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

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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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604715A: Non-System Training Devices -

Eng Dev

PROJECT

573: Program Executive Office Simulation,

DATE: February 2011

Training SPT

Management Services (\$ in Millions)			FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management- PEO STRI	Various	PEO STRI:Orlando, FL	-	2.693		5.152		-		5.152	Continuing	Continuing	Continuing
Government Program Management - BCT-M	Various	PEO STRI:Orlando, FL	-	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	-	2.693		5.152		-		5.152			
			Total Prior Years Cost	FY 2	011	FY 2 Ba			2012 CO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
		Project Cost Totals	-	2.693		5.152		-		5.152			

Remarks

UNCLASSIFIED

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