

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Army									DATE: February 2010		
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							
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	36.826	30.052	27.756	0.000	27.756	27.748	42.662	30.540	30.859	Continuing	Continuing
241: NSTD COMBINED ARMS	34.406	28.013	25.063	0.000	25.063	25.003	39.843	27.661	27.916	Continuing	Continuing
573: Program Executive Office Simulation, Training SPT	1.938	2.039	2.693	0.000	2.693	2.745	2.819	2.879	2.943	Continuing	Continuing
587: ARMY DEVELOP CTIA/TENA CAPABILITY	0.482	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
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 colocation with other services facilitates joint training solutions in a common environment. FY11 funds significant development efforts on the Combat Training Center Instrumentation Systems (CTC-IS), One Tactical Engagement Simulation System (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. Target Modernization initiates development of target system technologies which provide enhanced realism (look and behavior), threat/friend identification, and training performance feedback mechanisms. FY11 program funding will support system design, development, integration and demonstration of the Live, Virtual, Constructive Integrating Architecture (LVC-IA) Increment 1 capability to support DoD Training Transformation (T2) and Army Training Doctrine by providing the required integrated LVC mission rehearsal and training environment that allows Commanders, leaders, battle staffs & units to "train as they operate" as part of a Joint Task Force. FY11 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, PM Future Force (S) and PM Constructive Simulation).											

**UNCLASSIFIED**

R-1 Line Item #97

Page 1 of 23

1128 of 1922

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Army				DATE: February 2010	
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			
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	38.299	30.209	29.582	0.000	29.582
Current President's Budget	36.826	30.052	27.756	0.000	27.756
Total Adjustments	-1.473	-0.157	-1.826	0.000	-1.826
• Congressional General Reductions		-0.157			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-0.511	0.000			
• SBIR/STTR Transfer	-0.962	0.000			
• Adjustments to Budget Years	0.000	0.000	-1.826	0.000	-1.826
Change Summary Explanation					
None required.					

**UNCLASSIFIED**

R-1 Line Item #97

Page 2 of 23

1129 of 1922

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604715A: <i>Non-System Training Devices - Eng Dev</i>				<b>PROJECT</b> 241: <i>NSTD COMBINED ARMS</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
241: <i>NSTD COMBINED ARMS</i>	34.406	28.013	25.063	0.000	25.063	25.003	39.843	27.661	27.916	Continuing	Continuing
Quantity of RDT&E Articles											
<b>A. Mission Description and Budget Item Justification</b> <p>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. The One Tactical Engagement Simulation System (OneTESS) provides for an advanced, joint, collective, combined arms, live force-on-force training system using tactical weapon systems supported by a family of Training Aids, Devices, Simulations and Simulators (TADSS) that support up to brigade-level exercises, for every weapon and vehicle platform, at Homestation, Maneuver Combat Training Centers (MCTC), and deployed sites. The Common Training Instrumentation Architecture (CTIA) provides the common architecture framework for developing the Live Training Transformation (LT2) Product Line of live training systems supporting Army-wide Force-On-Force (FOF) and Force-On-Target (FOT) training requirements. CTIA is a spiral development, evolutionary acquisition program that continues to provide developmental support for the LT2 Product line in compliance with the DoD Test and Training Enabling Architecture (TENA). The Combat Training Centers (CTCs) 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). Combat Training Center Instrumentation System (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 OneTESS and FCS requirements. 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 Target Modernization provides for the initiation of the development of training target related technologies; focused on enhancing threat realism, engagement feedback, support of changes in doctrine/weapons, and alignment to CTIA Product-Line assets. FY11 funds significant development efforts on the Combat Training Center Instrumentation Systems (CTC-IS), One Tactical Engagement Simulation System (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. Target Modernization initiates development of target system technologies which provide enhanced realism (look and behavior), threat/friend identification, and training performance feedback mechanisms. FY11 program funding will support system design, development, integration and demonstration of the Live, Virtual, Constructive Integrating Architecture (LVC-IA) Increment 1 capability to support DoD Training Transformation (T2) and Army Training Doctrine by providing the required integrated LVC mission rehearsal and training environment that allows Commanders, leaders, battle staffs &amp; units to "train as they operate" as part of a Joint Task Force.</p>											

**UNCLASSIFIED**

R-1 Line Item #97

Page 3 of 23

1130 of 1922

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
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		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #1  FY09-FY11: Continues development of One Tactical Engagement Simulation System (One TESS). Refine systems architecture, develop Future System/Joint, Live/Virtual and Constructive solutions and integrate operational testing that supports the training and testing communities into current combat systems under development.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		22.997	8.320	7.399	0.000	7.399
Program #2  FY09: Center of Excellence for Military Operations in Urban Terrain and Cultural Training Add.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010		2.996	0.000	0.000	0.000	0.000

**UNCLASSIFIED**

R-1 Line Item #97

Page 4 of 23

1131 of 1922

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
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		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #3  FY09-FY11: Continue development of CTIA to provide the common architecture capabilities that are essential for development and fielding of the CTC, Integrated Military Operations in Urbanized Terrain Training System (IMTS), HITS, and Digital Ranges Training System (DRTS) training instrumentation programs.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		5.154	1.993	2.122	0.000	2.122
Program #4  FY10-FY11: Combat Training Center Instrumentation System (CTC IS) funds the continued development of the Range Communications Systems at the National Training Center (NTC), Joint Readiness Training Center (JRTC) and Joint Multinational Readiness Center (JMRC) increasing tracking coverage and accuracy in order to increase training fidelity for Brigade Combat Team rotations to better prepare units for deployment. The Observer		0.000	4.895	4.967	0.000	4.967

**UNCLASSIFIED**

R-1 Line Item #97

Page 5 of 23

1132 of 1922

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: February 2010			
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				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Controller (OC) voice communication systems at the NTC and JMRC are unsupportable and present increasing risk to safety and the training mission.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO						
Program #5  FY10: Exportable Training Capability-Instrumentation System (ETC-IS) program funding provided for the development, integration, and testing of tracking capability, coverage and accuracy, and new Battle Command systems architecture to increase training fidelity for Brigade Combat Team rotations to better prepare units for deployment.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010		0.000	5.102	0.000	0.000	0.000

**UNCLASSIFIED**

R-1 Line Item #97

Page 6 of 23

1133 of 1922

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
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		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #6  FY09: Improvised Explosive Device Explosive Simulator (IEDES) - Developed realistic detection and reaction training against IED threats through simulated, but realistic battlefield cues and effects.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		0.211	0.000	0.000	0.000	0.000
Program #7  FY09: The Homestation Instrumentation Training System (HITS) program funding provided for the integration and testing of LT2 products into the HITS design.  FY 2009 Accomplishments: FY 2009		0.840	0.000	0.000	0.000	0.000

**UNCLASSIFIED**

R-1 Line Item #97

Page 7 of 23

1134 of 1922

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
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		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: FY 2010						
FY 2011 Base Plans: FY 2011 Base						
FY 2011 OCO Plans: FY 2011 OCO						
Program #8  FY09: Developed within the Virtual Patient System (VPS) an effective Tetherless Mannequin (TLM) training capability and a Medical Training Evaluation and Review (MeTER) System.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		0.466	0.000	0.000	0.000	0.000
Program #9		1.742	0.000	0.000	0.000	0.000

**UNCLASSIFIED**

R-1 Line Item #97

Page 8 of 23

1135 of 1922



**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: February 2010			
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				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY09: Engagement Skills Trainer 2000 (EST) weapon enhancement development including: the M145 machine gun optics, call for and adjust indirect fires, vehicle skate ring and pedestal mounts, and the family of AN/PAS-13 thermal weapon sights.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO						
Program #10  FY10-FY11: Develop system, design, development, integration and demonstration of the Live, Virtual, Constructive Integrating Architecture (LVC-IA) Increment 1 capability.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base		0.000	6.973	7.999	0.000	7.999

**UNCLASSIFIED**

R-1 Line Item #97

Page 9 of 23

1136 of 1922

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army			DATE: February 2010			
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				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: FY 2011 OCO						
Program #11  FY11: Target Modernization initiates development of target system technologies which provide enhanced realism (look and behavior), threat/friend identification, and training performance feedback mechanisms. Target Modernization initiates integration with Live Training Transformation (LT2) and Live, Virtual, and Constructive (LVC) simulation interoperability.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		0.000	0.000	2.576	0.000	2.576
Program #12  FY10: Small Business Innovative Research/Small Business Technology Transfer Programs.  FY 2009 Accomplishments: FY 2009		0.000	0.730	0.000	0.000	0.000

**UNCLASSIFIED**

R-1 Line Item #97

Page 10 of 23

1137 of 1922

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army										<b>DATE:</b> February 2010	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604715A: <i>Non-System Training Devices - Eng Dev</i>				<b>PROJECT</b> 241: <i>NSTD COMBINED ARMS</i>			
<b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>											
						<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	
<i>FY 2010 Plans:</i> FY 2010  <i>FY 2011 Base Plans:</i> FY 2011 Base  <i>FY 2011 OCO Plans:</i> FY 2011 OCO											
Accomplishments/Planned Programs Subtotals						34.406	28.013	25.063	0.000	25.063	
<b><u>C. Other Program Funding Summary (\$ in Millions)</u></b>											
<b><u>Line Item</u></b>	<b><u>FY 2009</u></b>	<b><u>FY 2010</u></b>	<b><u>FY 2011 Base</u></b>	<b><u>FY 2011 OCO</u></b>	<b><u>FY 2011 Total</u></b>	<b><u>FY 2012</u></b>	<b><u>FY 2013</u></b>	<b><u>FY 2014</u></b>	<b><u>FY 2015</u></b>	<b><u>Cost To Complete</u></b>	<b><u>Total Cost</u></b>
• Ord. #1: <i>OPA3, Appropriation NA0100 Training Devices, Non-System</i>	298.298	336.451	297.200	28.624	325.824	289.193	299.825	310.782	320.806	Continuing	Continuing
• Ord. #2: <i>OPA3, Appropriation MA6601 CTC Support</i>	36.459	83.094	23.400	0.000	23.400	139.479	125.354	148.729	125.329	Continuing	Continuing
<b><u>D. Acquisition Strategy</u></b> Competitive development efforts based on performance specifications.											
<b><u>E. Performance Metrics</u></b> Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.											

**UNCLASSIFIED**

R-1 Line Item #97

Page 11 of 23

1138 of 1922

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army										DATE: February 2010			
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			
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	C/CPFF	General Dynamics Fairfax, VA	91.796	6.275		6.658		0.000		6.658	Continuing	Continuing	0
CTIA	C/CPFF	Lockheed Martin Inc. Orlando, FL	52.358	0.000		0.000		0.000		0.000	Continuing	Continuing	0
CTIA - 2	C	TBS Location could not be determined.	0.000	1.591		1.729		0.000		1.729	Continuing	Continuing	0
CTC IS	C	TBS Location could not be determined.	0.000	4.465		4.518		0.000		4.518	Continuing	Continuing	0
ETC IS	C/FFP	Inter-Coastal Electronics Inc. Mesa, AZ	0.000	4.938		0.000		0.000		0.000	Continuing	Continuing	5.104
HITS	C/FFP	Riptide Oviedo, FL	1.379	0.000		0.000		0.000		0.000	Continuing	Continuing	1.379
MSTC	C/Various	Multiple Location could not be determined.	0.436	0.000		0.000		0.000		0.000	Continuing	Continuing	.586
EST 2000 Weapon Enhancement Development	C/FFP	Cubic Simulation Systems Division Orlando, Fl	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	1.648
LVC-IA Development	C	TBS Location could not be determined.	0.000	5.572		6.008		0.000		6.008	Continuing	Continuing	0
Target Modernization	C	TBS	0.000	0.000		2.221		0.000		2.221	Continuing	Continuing	2.274

**UNCLASSIFIED**

R-1 Line Item #97

Page 12 of 23

1139 of 1922

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army										DATE: February 2010			
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					
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
		Location could not be determined.											
Congressional Add Center of Excellence for Military Operations in Urban Terrain and Cultural Trn	C/Various	Multiple Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Subtotal			145.969	22.841		21.134		0.000		21.134			10.991
Remarks													
Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	C	Various Location could not be determined.	5.275	0.314		0.322		0.000		0.322	Continuing	Continuing	5.939
CTIA	C	Various Location could not be determined.	10.176	0.402		0.393		0.000		0.393	Continuing	Continuing	0
Target Modernization	C	Various Location could not be determined.	0.000	0.000		0.082		0.000		0.082	Continuing	Continuing	0

**UNCLASSIFIED**

R-1 Line Item #97

Page 13 of 23

1140 of 1922

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>											<b>DATE:</b> February 2010		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604715A: <i>Non-System Training Devices - Eng Dev</i>				<b>PROJECT</b> 241: <i>NSTD COMBINED ARMS</i>					
<b>Support (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			15.451	0.716		0.797		0.000		0.797			5.939
<b>Remarks</b>													
<b>Test and Evaluation (\$ in Millions)</b>													
				<b>FY 2010</b>		<b>FY 2011 Base</b>		<b>FY 2011 OCO</b>		<b>FY 2011 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Total Prior Years Cost</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
OneTESS Development and Test	C	Multiple Location could not be determined.	2.554	0.370		0.309		0.000		0.309	Continuing	Continuing	0
IEDES	C	Multiple Location could not be determined.	0.308	0.000		0.000		0.000		0.000	Continuing	Continuing	.308
HITS	C/Various	Multiple Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	.740
LVC-IA Test Support	C/Various	Multiple Location could not be determined.	0.000	0.362		0.923		0.000		0.923	Continuing	Continuing	0
<b>Subtotal</b>			2.862	0.732		1.232		0.000		1.232			1.048
<b>Remarks</b>													

**UNCLASSIFIED**

R-1 Line Item #97

Page 14 of 23

1141 of 1922

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army										DATE: February 2010			
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					
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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	C/Various	PEO STRI Orlando, FL 32826	5.494	1.361		0.110		0.000		0.110	Continuing	Continuing	6.843
CTC IS Program Management	C/Various	PEO STRI Orlando, FL 32826	0.000	0.430		0.449		0.000		0.449	Continuing	Continuing	0
ETC IS Program Management	C/Various	PEO STRI Orlando, FL 32826	0.000	0.164		0.000		0.000		0.000	Continuing	Continuing	.164
HITS Program Management	C/Various	PEO STRI Orlando, FL 32826	0.300	0.000		0.000		0.000		0.000	Continuing	Continuing	.400
EST 2000 Program Management	C/Various	PEO STRI Orlando, FL 32826	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	.095
LVC-IA Program Management	C/Various	PEO STRI Orlando, FL 32826	0.000	1.039		1.068		0.000		1.068	Continuing	Continuing	0
Target Modernization	C/Various	PEO STRI Orlando, FL	0.000	0.000		0.273		0.000		0.273	Continuing	Continuing	0
MSTC Program Management	C/Various	PEO STRI Orlando, FL 32826	0.021	0.000		0.000		0.000		0.000	Continuing	Continuing	.343
SBIR/STTR	C	Nothing entered for Activity and Location. Location could not be determined.	0.000	0.730		0.000		0.000		0.000	Continuing	Continuing	0
Subtotal			5.815	3.724		1.900		0.000		1.900			7.845
Remarks													

**UNCLASSIFIED**

R-1 Line Item #97

Page 15 of 23

1142 of 1922

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2011 Army</b>							<b>DATE:</b> February 2010												
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604715A: <i>Non-System Training Devices - Eng Dev</i>			<b>PROJECT</b> 241: <i>NSTD COMBINED ARMS</i>												
<div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <div style="width: 20%;"></div> <div style="width: 10%; text-align: center;"><b>Total Prior Years Cost</b></div> <div style="width: 10%; text-align: center;"><b>FY 2010</b></div> <div style="width: 10%; text-align: center;"><b>FY 2011 Base</b></div> <div style="width: 10%; text-align: center;"><b>FY 2011 OCO</b></div> <div style="width: 10%; text-align: center;"><b>FY 2011 Total</b></div> <div style="width: 10%; text-align: center;"><b>Cost To Complete</b></div> <div style="width: 10%; text-align: center;"><b>Total Cost</b></div> <div style="width: 10%; text-align: center;"><b>Target Value of Contract</b></div> </div> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: right;"><b>Project Cost Totals</b></td> <td style="width: 10%; text-align: center;">170.097</td> <td style="width: 10%; text-align: center;">28.013</td> <td style="width: 10%; text-align: center;"></td> <td style="width: 10%; text-align: center;">25.063</td> <td style="width: 10%; text-align: center;">0.000</td> <td style="width: 10%; text-align: center;">25.063</td> <td style="width: 10%; text-align: center;"></td> <td style="width: 10%; text-align: center;"></td> <td style="width: 10%; text-align: center;">25.823</td> </tr> </table>										<b>Project Cost Totals</b>	170.097	28.013		25.063	0.000	25.063			25.823
<b>Project Cost Totals</b>	170.097	28.013		25.063	0.000	25.063			25.823										
<b>Remarks</b>																			

**UNCLASSIFIED**



**UNCLASSIFIED**

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army																		DATE: February 2010											
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									

**UNCLASSIFIED**

R-1 Line Item #97

Page 17 of 23

1144 of 1922

**UNCLASSIFIED**

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			DATE: February 2010	
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		End	
Event	Quarter	Year	Quarter	Year
OneTESS MS C	3	2011	3	2011
CTIA Version 2.1	3	2009	3	2009
CTIA Version 2.2	3	2010	3	2010
CTIA Version 2.3	3	2011	3	2011
CTC IS Development	4	2009	3	2015
ETC IS (Phase 2) Development & Testing	1	2010	3	2010
EST 2000 Weapon Enhancement Development	1	2009	3	2009
LVC-IA - Increment 1 - EMD	4	2009	3	2011
Target Modernization Development	4	2010	3	2015

**UNCLASSIFIED**

R-1 Line Item #97

Page 18 of 23

1145 of 1922

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604715A: <i>Non-System Training Devices - Eng Dev</i>				<b>PROJECT</b> 573: <i>Program Executive Office Simulation, Training SPT</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
573: <i>Program Executive Office Simulation, Training SPT</i>	1.938	2.039	2.693	0.000	2.693	2.745	2.819	2.879	2.943	Continuing	Continuing
Quantity of RDT&E Articles											
<b>A. Mission Description and Budget Item Justification</b> 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.) FY11 funds labor in support of PEO operations.											
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
							<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
Program #1  FY09-FY11: Continues to support PEO STRI labor for project managers in PM TRADE, PM ITTS, PM CATT, PM Constructive Simulation and PM Future Force (Simulation).  <i>FY 2009 Accomplishments:</i> FY 2009  <i>FY 2010 Plans:</i> FY 2010  <i>FY 2011 Base Plans:</i> FY 2011 Base  <i>FY 2011 OCO Plans:</i> FY 2011 OCO							1.550	1.599	2.693	0.000	2.693

**UNCLASSIFIED**

R-1 Line Item #97

Page 19 of 23

1146 of 1922

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Army				DATE: February 2010		
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, Training SPT		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #2  FY09-FY10: 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 Army Future Combat System.  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base  FY 2011 OCO Plans: FY 2011 OCO		0.388	0.383	0.000	0.000	0.000
Program #3  FY10: Small Business Innovative Research/Small Business Technology Transfer Program  FY 2009 Accomplishments: FY 2009  FY 2010 Plans: FY 2010  FY 2011 Base Plans: FY 2011 Base		0.000	0.057	0.000	0.000	0.000

**UNCLASSIFIED**

R-1 Line Item #97

Page 20 of 23

1147 of 1922

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army				<b>DATE:</b> February 2010				
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0604715A: <i>Non-System Training Devices - Eng Dev</i>		<b>PROJECT</b> 573: <i>Program Executive Office Simulation, Training SPT</i>				
<b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>								
				<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
<i>FY 2011 OCO Plans:</i> FY 2011 OCO								
Accomplishments/Planned Programs Subtotals				1.938	2.039	2.693	0.000	2.693
<b><u>C. Other Program Funding Summary (\$ in Millions)</u></b> N/A								
<b><u>D. Acquisition Strategy</u></b> Not Applicable.								
<b><u>E. Performance Metrics</u></b> Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.								

**UNCLASSIFIED**

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army								<b>DATE:</b> February 2010				
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604715A: <i>Non-System Training Devices - Eng Dev</i>				<b>PROJECT</b> 587: <i>ARMY DEVELOP CTIA/TENA CAPABILITY</i>				
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	
587: <i>ARMY DEVELOP CTIA/TENA CAPABILITY</i>	0.482	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing	
Quantity of RDT&E Articles												
<b>A. Mission Description and Budget Item Justification</b> <p>This project funds the Joint NonKenetic Effects Model (JNEM)-Joint Conflict and Tactical Simulation (JCATS) Interoperability to implement a robust and stable interface between the JNEM and JCATS model. Exercise software developed and upgraded is valid for training and includes all items approved by the Exercise Director and Commanders Training Objectives. Implementation of a JNEM-JCATS interface contributes to numerous mitigation issues: capability to provide training feedback in Information Operations (IO), capability to provide improved Host Nation Representation, capability to plan Human Intelligence (HUMINT), capability to incorporate Non-Government Organizations (NGO), Private Voluntary Organizations (PVO), Multi-National Corporations (MNC), and US Forces Civil Affairs Higher Headquarters that Contribute to Stable Operations, and capability to adequately replicate Other Government Agency (OGA) interaction with the Brigade Combat Team Staff.</p>												
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>												
						<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>		
Program #1 FY09: Completed Development of JNEM for training.  <i>FY 2009 Accomplishments:</i> FY 2009  <i>FY 2010 Plans:</i> FY 2010  <i>FY 2011 Base Plans:</i> FY 2011 Base						0.482	0.000	0.000	0.000	0.000		

**UNCLASSIFIED**

R-1 Line Item #97

Page 22 of 23

1149 of 1922

**UNCLASSIFIED**

<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Army				<b>DATE:</b> February 2010	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604715A: <i>Non-System Training Devices - Eng Dev</i>	<b>PROJECT</b> 587: <i>ARMY DEVELOP CTIA/TENA CAPABILITY</i>			
<b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>					
	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
<i>FY 2011 OCO Plans:</i> FY 2011 OCO					
Accomplishments/Planned Programs Subtotals	0.482	0.000	0.000	0.000	0.000
<b><u>C. Other Program Funding Summary (\$ in Millions)</u></b>					
N/A					
<b><u>D. Acquisition Strategy</u></b>					
N/A					
<b><u>E. Performance Metrics</u></b>					
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.					

**UNCLASSIFIED**