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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE							
2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>					PE 0604780A: <i>Combined Arms Tactical Trainer (CATT) Core</i>							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	21.541	17.797	27.634	-	27.634	26.413	26.372	25.534	28.367	Continuing	Continuing
571: <i>Close Cbt Tact Trainer</i>	-	4.202	4.252	0.828	-	0.828	0.828	0.704	0.663	0.657	Continuing	Continuing
577: <i>Gaming Technology In Support Of Army Training</i>	-	1.384	1.348	2.118	-	2.118	1.439	1.297	1.348	1.400	Continuing	Continuing
582: <i>Synthetic Envir Core</i>	-	13.488	9.616	20.860	-	20.860	20.434	20.422	18.823	22.322	Continuing	Continuing
585: <i>Aviation Combined Arms Tactical Trainer</i>	-	2.467	2.581	3.828	-	3.828	3.712	3.949	4.700	3.988	Continuing	Continuing

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

Note

Change Summary Explanation: SE Core is required to generate a larger area (over 4M sq km) of terrain databases. In addition, these databases are required to have a higher resolution of data within the database. Budget adjustment received to achieve requirements.

A. Mission Description and Budget Item Justification

The Combined Arms Tactical Trainers (CATT) represent a family of combined arms simulation systems designed to support the Army's simulation-based, Combined Arms Training Strategy. CATT enables units, from crew to the battalion task force level, to conduct a wide variety of combat tasks on a realistic, interactive, synthetic battlefield. CATT's combination of manned simulators and staff officer workstations enables units to train as a combined arms team in a cost effective manner. The primary CATT system is the Close Combat Tactical Trainer (CCTT) which provides the underlying baseline architecture and After Action Review (AAR) for CATT expansions, Pre-Planned Product Improvements (P3I) and system enhancements. The Reconfigurable Vehicle Simulator (RVS) and the Dismounted Soldier Training System (DSTS) variants support combat convoy operations and Improvised Explosive Devices (IED) tasks. Synthetic Environment (SE) Core provides for the expansion of the synthetic environment baseline to include enhanced interoperability and the products and infrastructure to support current and future combat operations and mission rehearsal required for Overseas Contingency Operations (OCO) and Unified Land Operations. The first synthetic environments expanded were in the Aviation Combined Arms Tactical Trainer (AVCATT) and the CCTT for both the Active and Reserve components. Gaming Technology provides an application to train and rehearse convoy-operations, platoon level, mounted infantry tactics, dismounted operations, rules-of-engagement training, cross-cultural communications training, IED defeat training, route clearance, ground-air coordination, Unmanned Aerial Vehicle (UAV) integration, and other small unit and individual training and mission rehearsal requirements. Soldiers can train in a common environment on geotypical or geospecific virtual terrain. It is also possible to link Gaming technology to actual communication, command, control, computer, and intelligence (C4I) systems and other CATT simulation systems to increase the utility and realism of the training. By practicing skills in CATT, units are able to effectively prepare for costly live fire and maneuver exercises, as well as train tasks deemed too hazardous to conduct in a live training environment. Fielded in both fixed site and mobile versions, CATT enables both Active and Reserve component units to prepare for real world contingency missions. By being able to use a wide array of training terrain databases and modify the behavior of the computer generated opposing forces, CATT offers

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APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

PE 0604780A: *Combined Arms Tactical Trainer (CATT) Core*

an unlimited array of training options to support the Army's many regional combat missions. The combination of tough field and live fire training, and realistic simulation training in CATT, is the formula to prepare Soldiers and their Leaders for the uncertainties they face in current combat operations in Afghanistan, and their transition to Unified Land Operations.

FY 2014 Project 571 core funding of \$.828 million for CCTT enables the P3I for the CCTT DSTS in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Heavy Brigade Combat Teams.

FY 2014 Project 577 core funding of \$2.118 million for Games for Training will integrate the flagship product into the Live-Virtual-Constructive Integrated Training Environment (LVC-ITE).

FY 2014 Project 582 core funding of \$20.860 million for SE Core will provide for common virtual terrain databases to be generated by the Terrain Database Center (TDC). The TDC continues development and refinement of the Standard Terrain Database Generation Capability (STDGC).

FY 2014 Project 585 core funding of \$3.828 million for AVCATT will develop and test the replacement Sensor Video Recording System functionality in AVCATT to meet the After Action Review (AAR) Key Performance Parameter (KPP). It will also design new capabilities to enhance training when using the AVCATT and NCM3 in combined mode, including improved communications, hoist operations, slingload operations, and visual realism improvements.

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	22.205	17.797	21.119	-	21.119
Current President's Budget	21.541	17.797	27.634	-	27.634
Total Adjustments	-0.664	0.000	6.515	-	6.515
• Congressional General Reductions	-0.014	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.650	-			
• Adjustments to Budget Years	-	-	6.515	-	6.515

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604780A: Combined Arms Tactical Trainer (CATT) Core				PROJECT 571: Close Cbt Tact Trainer			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
571: Close Cbt Tact Trainer	-	4.202	4.252	0.828	-	0.828	0.828	0.704	0.663	0.657	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Close Combat Tactical Trainer (CCTT) program provides for Engineering and Manufacturing Development (EMD) and Pre-Planned Product Improvements (P3I), which will enhance readiness for both Active and Reserve component forces to support the execution of current and future combat operations including Overseas Contingency Operations (OCO) and Unified Land Operations. CCTT develops, fields and sustains a networked system of interactive computer driven simulators, emulators, and semi-automated forces that replicate combat vehicles and weapon systems, combat support systems, combat service support systems, and command and control systems to create a fully integrated, real-time collective task training environment for armor, infantry, cavalry, reconnaissance, and other combat units at Squad through Brigade level. CCTT allows command units and Soldiers to practice Tactics, Techniques and Procedures (TTP) that, if performed on real equipment, would be too hazardous, time-consuming and expensive. These trainers enhance realism and allow Soldiers and units to learn tactical, combat lessons on maneuver, command and control, convoy operations, and improved teamwork for increased survivability and mission effectiveness. The P3I enhances CCTT's capabilities as a tactical trainer and maintains concurrency with fielded, tactical equipment and force structure. These improvements will maintain interoperability with the Aviation Combined Arms Tactical Trainer (AVCATT), Army Battle Command System (ABCS), including Force XXI Battle Command Brigade and Below (FBCB2), Live, Virtual and Constructive-Integrating Architecture (LVC-IA) and other simulation systems needed to execute training for current and future combat operations.												
FY 2014 core funding of \$.828 million for CCTT enables the P3I for the CCTT Dismounted Soldier Training System (DSTS) in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Armor Brigade Combat Teams.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Government Program Management for the Close Combat Tactical Trainer (CCTT) program.									0.182	0.729	0.165	
									0	0		
Description: Government Program Management for the CCTT program.												
FY 2012 Accomplishments: Supported government program management, engineering, technical, contracting support, and continued operational evaluation support.												
FY 2013 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army								DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604780A: <i>Combined Arms Tactical Trainer (CATT) Core</i>				PROJECT 571: <i>Close Cbt Tact Trainer</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2012	FY 2013	FY 2014	
Supports government program management, engineering, technical, contracting support, and continues operational evaluation support.											
FY 2014 Plans: Supports government program management, engineering, technical, contracting support, and continues operational evaluation support.											
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the CCTT DSTS.								4.020	3.523	0.663	
Articles:								0	0		
Description: Continue EMD phase contract activities for the CCTT DSTS.											
FY 2012 Accomplishments: Enabled the P3I for the CCTT DSTS in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Heavy Brigade Combat Teams.											
FY 2013 Plans: Enables the P3I for the CCTT DSTS in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Heavy Brigade Combat Teams.											
FY 2014 Plans: Enables the P3I for the CCTT DSTS in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Heavy Brigade Combat Teams.											
Accomplishments/Planned Programs Subtotals								4.202	4.252	0.828	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPA3, Appropriation NA0170: <i>OPA3, Appropriation NA0170</i>	13.290	19.984	30.063		30.063	31.379	28.847	28.313	22.873	Continuing	Continuing
• OMA, Appropriation 121018000: <i>OMA, Appropriation 121018000</i>			1.600		1.600	0.100	0.100	0.100	0.100	Continuing	Continuing
Remarks The RDT&E efforts will provide enhancements to the hardware and software of the program to meet warfighter mission priorities. These enhancements, after proper testing, will be procured and fielded with the programs procurement funds.											

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604780A: <i>Combined Arms Tactical Trainer (CATT) Core</i>	PROJECT 571: <i>Close Cbt Tact Trainer</i>

D. Acquisition Strategy

FY 2014 will enable Pre-Planned Product Improvements (P3I) for the Dismounted Soldier Training System (DSTS).

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 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)						R-1 ITEM NOMENCLATURE PE 0604780A: Combined Arms Tactical Trainer (CATT) Core				PROJECT 571: Close Cbt Tact Trainer					
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	Various	PEO STRI:Orlando, FL	16.899	0.182	Dec 2011	0.729	Dec 2012	0.165	Dec 2013	-		0.165	Continuing	Continuing	Continuing
Subtotal			16.899	0.182		0.729		0.165		0.000		0.165			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development of CCTT Dismounted Soldier Training System	C/FFP	Intelligent Decisions, Inc.:Ashburn, VA	2.876	4.020	Feb 2012	3.523	Feb 2013	0.663	Feb 2014	-		0.663	Continuing	Continuing	Continuing
Subtotal			2.876	4.020		3.523		0.663		0.000		0.663			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			19.775	4.202		4.252		0.828		0.000		0.828			
Remarks															

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604780A: Combined Arms Tactical Trainer (CATT) Core				PROJECT 577: Gaming Technology In Support Of Army Training			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
577: Gaming Technology In Support Of Army Training	-	1.384	1.348	2.118	-	2.118	1.439	1.297	1.348	1.400	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note Not applicable for this item.												
A. Mission Description and Budget Item Justification The Games for Training (GFT) enables Commanders, Soldiers and units to conduct training in a real-time, semi-immersive environment that will leverage Synthetic Environment Core (SE Core) capabilities and is compliant with Live, Virtual and Constructive Integrating Architecture (LVC-IA). The program provides a commercial-off-the-shelf (COTS) product line of personal computer based gaming applications to train Soldiers in decision-making, team and individual tasks at different skill levels, using multiple mission scenarios. The program leverages the commercial game industry to provide state of the art training solutions. The GFT program provides Army-wide licenses from the commercial market, or from Research and Development agencies, and the hardware required to operate the systems. GFT program currently supports Overseas Contingency Operations (OCO), Unified Land Operations, Contemporary Operating Environment and Decisive Action. FY 2014 core funding of \$2.118 million will integrate the flagship product into the LVC-ITE. It will also integrate new commercial and government technology products into the current gaming system.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Games for Training (GFT) program. Articles:									1.090	1.009	1.752	
									0	0		
Description: Continue EMD phase contract activities for the GFT program.												
FY 2012 Accomplishments: Funding provided modifications to the GFT system to integrate and provide interoperability with medical training systems, ABCS and other simulators and simulations in support of home station training, OCO and Unified Land Operations.												
FY 2013 Plans: Funding will provide modifications to the GFT system to ensure compliance with the LVC-ITE in support of Decisive Operations.												
FY 2014 Plans:												

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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604780A: <i>Combined Arms Tactical Trainer (CATT) Core</i>			PROJECT 577: <i>Gaming Technology In Support Of Army Training</i>		

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Funding will provide modifications to the GFT system to ensure compliance with the LVC-ITE in support of Unified Land Operations.			
Title: Government Program Management for the GFT program. <div style="text-align: right; padding-right: 20px;">Articles:</div>	0.294 0	0.339 0	0.366
Description: Government Program Management for the GFT program. FY 2012 Accomplishments: Government program management, engineering, technical, contract and test activities provide fielding, integration of software and web hosted support to Soldier tactical training. FY 2013 Plans: Supports Government program management, engineering, technical, contract and test support for the GFT program. FY 2014 Plans: Government program management, engineering, technical, contract and test activities provide fielding, integration of software and web hosted support to Soldier tactical training.			
Accomplishments/Planned Programs Subtotals	1.384	1.348	2.118

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPA 3: <i>OPA 3, Appropriation NA0176 Gaming Technology in Support of Army Training</i>		9.956	9.955		9.955	8.595	8.119	6.321	8.754	Continuing	Continuing
Remarks											
D. Acquisition Strategy Competitive contract against the approved Capabilities Production Document (CPD), dated 18 Sep 08.											
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 2014 Army													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE				PROJECT					
2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)						PE 0604780A: Combined Arms Tactical Trainer (CATT) Core				577: Gaming Technology In Support Of Army Training					
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Program Management	Various	PEO STRI:Orlando, FL	0.304	0.294	Dec 2011	0.339	Dec 2012	0.366	Mar 2014	-		0.366	Continuing	Continuing	Continuing
Subtotal			0.304	0.294		0.339		0.366		0.000		0.366			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Games for Training	Various	PEO STRI:Orlando, FL	1.513	1.090	May 2012	1.009	Apr 2013	1.752	Feb 2014	-		1.752	Continuing	Continuing	Continuing
Subtotal			1.513	1.090		1.009		1.752		0.000		1.752			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1.817	1.384		1.348		2.118		0.000		2.118			
Remarks															

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604780A: Combined Arms Tactical Trainer (CATT) Core				PROJECT 582: Synthetic Envir Core			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
582: Synthetic Envir Core	-	13.488	9.616	20.860	-	20.860	20.434	20.422	18.823	22.322	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
This project supports the Synthetic Environment Core (SE Core) Program. SE Core's mission is to ensure the Army's virtual training systems and simulators are integrated and interoperable. SE Core provides virtual simulators with visual models (buildings and vehicles), terrain (over which the simulator moves), and entity behaviors (models performing realistic and appropriate actions such as movement and weapon effects) that are relevant and realistic to Unified Land Operations. The result is a "Fair Fight" capability; no simulator or operator will have an inherent advantage over another. Fair Fight allows for air and ground to have coordinated and integrated training events that accurately replicate combat operations. Additionally, SE Core is building the Army's Common Virtual Environment (CVE) that provides the linkage between simulators and establishes a common environment for interoperability, allowing various simulators to be "hooked up" together for a train as we fight capability. SE Core is a foundational element in the Army's Training Transformation Plan linking the embedded systems, multi-mode Live, Virtual, Constructive, Gaming (LVCG) training capability with current systems.												
The SE Core components are One Semi-Automated Forces (OneSAF) integration; terrain database production; common visual models; a virtual systems architecture; a dynamic environment; mission command development; and net ready. A major SE Core component is the Standard Terrain Database Generation Capability (STDGC) process used to produce the synthetic terrain used in simulators and simulations. This terrain produced by SE Core is a key component for virtual simulators and constructive simulations and will expand to meet the growing demands of today's and future simulations.												
FY 2014 base funding of \$20.860 million will continue the efforts of providing expanded development and production for common terrain databases. FY 2014 funds will modify the Terrain Development process for constructive Terrain Database Production and continue to enhance OneSAF in the SE Core Architecture. Maintaining OneSAF for virtual simulations enables interoperability with the LVC ITE and reduces cost as individual virtual simulators will no longer develop and maintain separate SAFs. The SE Core Product Line of Common Virtual Components will continue with upgrades, integration and refinement, and the continued development of common visual models.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Synthetic Environment Core (SE Core) program.									11.604	7.704	19.006	
									0	0		
Articles:												
Description: Continue EMD phase contract activities for the SE Core program.												

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604780A: Combined Arms Tactical Trainer (CATT) Core	PROJECT 582: Synthetic Envir Core		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
FY 2012 Accomplishments: Provided terrain databases to an expanded number of programs in support of the Integrated Training Environment (ITE). Architectural Management continues evaluation of virtual training requirements to harmonize the requirements throughout the virtual training domain as well as the Constructive and Live training domains. This is to ensure interoperability within the ITE. Continued to provide OneSAF the consolidated virtual SAF requirements.				
FY 2013 Plans: Provides expansion of the production capability to meet the growing demand for synthetic terrain for training including constructive simulations. In addition, SE Core is prepared to begin development of the SAF behaviors for the Dismounted Soldier System. Efforts to improve interoperability across simulators and simulations continue.				
FY 2014 Plans: Provides expansion of the production capability to meet the growing demand for synthetic terrain for training including constructive simulations. Efforts to improve interoperability across simulators and simulations continue.				
Title: Government Program Management for the Synthetic Environment Core (SE Core) program. Articles:		1.884 0	1.912 0	1.854
Description: Government Program Management for the SE Core program.				
FY 2012 Accomplishments: Provided program management, engineering and technical oversight, contract support, and test support (including travel for Subject Matter Experts) for development of SE Core.				
FY 2013 Plans: Provides program management, engineering and technical oversight, contract support, and test support (including travel for Subject Matter Experts) for development of SE Core.				
FY 2014 Plans: Provides program management, engineering and technical oversight, contract support, and test support (including travel for Subject Matter Experts) for development of SE Core.				
Accomplishments/Planned Programs Subtotals		13.488	9.616	20.860

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C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPA3, Appropriation NA0173: OPA3, Appropriation NA0173 Aviation Combined Arms Tactical Trainer	9.413	11.977	34.913		34.913	33.768	35.667	30.900	29.278	Continuing	Continuing
• OPA3, Appropriation NA0170: OPA3, Appropriation NA0170 Close Combat Tactical Trainer (CCTT)	13.290	19.984	30.063		30.063	31.379	28.847	28.313	22.783	Continuing	Continuing
• RDTE, Appropriation 654760: RDTE, Appropriation 654760 One Semi-Automated Forces (OneSAF)	11.678	11.720	12.437		12.437	12.269	12.672	12.881	13.099	Continuing	Continuing
• RDTE, Appropriation 654715: RDTE, Appropriation 654715 Live, Virtual, Constructive Integration Architecture (LVC-IA)	7.888		8.451		8.451	11.007	11.570	10.120	4.304	Continuing	Continuing
• OMA, Appropriation, 121014000: OMA, Appropriation 121014000, TBWG	1.781	4.708	9.983		9.983	10.118	10.270	10.545	12.095	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
SE Core awarded SAIC a CPFF contract in December 2011. This contract has a one year base with four option years. SE Core exercised the first option in December 2012. At this time, SE Core continues to evaluate the contractor's performance and fully expects to exercise the second option in December 2013.											
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 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)						R-1 ITEM NOMENCLATURE PE 0604780A: Combined Arms Tactical Trainer (CATT) Core						PROJECT 582: Synthetic Envir Core			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	Various	Various:Various	3.622	-		-		-		-		-	0.000	3.622	3.622
Government Program Management Support	Various	PEO STRI:Orlando, FL	15.095	1.884	Dec 2011	1.912	Dec 2012	1.854	Dec 2013	-		1.854	Continuing	Continuing	Continuing
Subtotal			18.717	1.884		1.912		1.854		0.000		1.854			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Development - Architecture and Integration	C/CPFF	SAIC:Orlando, FL	6.946	-		-		-		-		-	0.000	6.946	6.946
Technology Development -Architecture and Integration	C/CPFF	SAIC:Orlando, FL	50.785	-		-		-		-		-	0.000	50.785	50.785
Technology Development -Database Virtual Environment Development	C/CPFF	CAE, USA:Orlando, FL	56.179	-		-		-		-		-	0.000	56.179	56.179
Technology Development	C/CPFF	SAIC:Orlando, FL	0.000	11.604	Feb 2012	7.704	Jan 2012	19.006	Dec 2013	-		19.006	Continuing	Continuing	Continuing
Subtotal			113.910	11.604		7.704		19.006		0.000		19.006			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technology Development - Test Support	Various	Test Community:Various	0.125	-		-		-		-		-	0.000	0.125	0.125
Subtotal			0.125	0.000		0.000		0.000		0.000		0.000	0.000	0.125	0.125
Remarks Not Applicable															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army										DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604780A: Combined Arms Tactical Trainer (CATT) Core					PROJECT 582: Synthetic Envir Core			
	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	132.752	13.488		9.616		20.860		0.000		20.860			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army																DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY								R-1 ITEM NOMENCLATURE								PROJECT			
2040: Research, Development, Test & Evaluation, Army								PE 0604780A: Combined Arms Tactical								582: Synthetic Envir Core			
BA 5: System Development & Demonstration (SDD)								Trainer (CATT) Core											

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army			DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE		PROJECT
2040: Research, Development, Test & Evaluation, Army		PE 0604780A: Combined Arms Tactical		582: Synthetic Envir Core
BA 5: System Development & Demonstration (SDD)		Trainer (CATT) Core		

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Net Ready (KPP #1)	1	2013	1	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604780A: Combined Arms Tactical Trainer (CATT) Core				PROJECT 585: Aviation Combined Arms Tactical Trainer			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
585: Aviation Combined Arms Tactical Trainer	-	2.467	2.581	3.828	-	3.828	3.712	3.949	4.700	3.988	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Aviation Combined Arms Tactical Trainer (AVCATT) is an Army aviation training system for Active, Reserve and Army National Guard Components. The AVCATT system permits aviation units to conduct collective task training on a real-time, virtual battlefield in a combined arms scenario by leveraging Synthetic Environment Core (SE Core) capabilities. The AVCATT is designed to provide realistic, high intensity, collective and combined arms training for aviation units. AVCATT supports the Aviation Combined Arms Training Strategy, Army Forces Generation (ARFORGEN), Overseas Contingency Operations (OCO), and Unified Land Operations. A single suite of equipment consists of two mobile trailers housing six reconfigurable, networked simulators that support the AH-64D/E, UH-60A/L/M, CH-47D/F and OH-58D/F aircraft. Other AVCATT modules, such as the Non-Rated Crewmember Manned Module (NCM3, a sub-system of AVCATT), can be linked to this basic configuration, when and where needed, to support specific unit training requirements. Roleplayer, Semi-Automated Forces (SAF), and After Action Review (AAR) workstations are also provided as part of each suite. AVCATT is a fully mobile system, capable of using shore and generator power and is transportable worldwide.												
FY 2014 core funding of \$3.828 million will develop and test the replacement Sensor Video Recording System functionality in AVCATT to meet the After Action Review (AAR) Key Performance Parameter (KPP). It will also design new capabilities to enhance training when using the AVCATT and NCM3 in combined mode, including improved communications, hoist operations, slingload operations, and visual realism improvements.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Aviation Combined Arms Tactical (AVCATT) program.									2.467	2.581	3.828	
									0	0		
Articles:												
Description: Continue EMD phase contract activities for the AVCATT program.												
FY 2012 Accomplishments: Conducted a technology refresh of AVCATT's Image Processor Display Generation (IPDG) systems, including design, development, and test of the new systems.												
FY 2013 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army								DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>					R-1 ITEM NOMENCLATURE PE 0604780A: <i>Combined Arms Tactical Trainer (CATT) Core</i>			PROJECT 585: <i>Aviation Combined Arms Tactical Trainer</i>			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2012	FY 2013	FY 2014	
Develop the capability to stimulate and be stimulated by Current Force virtual simulators and battle command systems through the use of the SE Core Gateway.											
FY 2014 Plans: Design, develop, and first article testing of the replacement Sensor Video Recording System functionality in AVCATT to meet the After Action Review (AAR) Key Performance Parameter (KPP) and reduce life cycle cost. Design new capabilities to enhance training when using the AVCATT and NCM3 in a combined mode, including improved communications, hoist operations, slingload operations, and visual realism improvements.											
Accomplishments/Planned Programs Subtotals								2.467	2.581	3.828	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• OPA3: OPA3, Appropriation NA0173 Aviation Combined Arms Tactical Trainer	9.413	11.977	34.913		34.913	33.768	35.667	30.900	29.278	Continuing	Continuing
Remarks											
D. Acquisition Strategy Small Business Set aside for technology refresh efforts.											
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 2014 Army													DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>							R-1 ITEM NOMENCLATURE PE 0604780A: <i>Combined Arms Tactical Trainer (CATT) Core</i>				PROJECT 585: <i>Aviation Combined Arms Tactical Trainer</i>				
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Office Support	Various	PEO STRI:Orlando, FL	1.500	-		-		-		-		-	0.000	1.500	1.500
Subtotal			1.500	0.000		0.000		0.000		0.000		0.000	0.000	1.500	1.500
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
AVCATT	C/CPAF	L3 Communications Corp.:Arlington, TX	45.210	-		2.581	Mar 2013	-		-		-	Continuing	Continuing	Continuing
AVCATT	SS/FFP	Daedalus Technologies, Inc.:Orlando, FL	0.000	2.467	Dec 2011	-		-		-		-	0.000	2.467	2.547
AVCATT	C/CPIF	TBS:TBS	0.000	-		-		3.828	Feb 2014	-		3.828	0.000	3.828	0.000
Subtotal			45.210	2.467		2.581		3.828		0.000		3.828			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			46.710	2.467		2.581		3.828		0.000		3.828			
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army																DATE: April 2013											
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>										R-1 ITEM NOMENCLATURE PE 0604780A: <i>Combined Arms Tactical Trainer (CATT) Core</i>										PROJECT 585: <i>Aviation Combined Arms Tactical Trainer</i>							

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	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
Required Interoperability with battle command systems and virtual simulators	[REDACTED]																											
Non-Rated Crew Member Manned Module (NCM3, a subsystem of AVCATT)	[REDACTED]																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604780A: <i>Combined Arms Tactical Trainer (CATT) Core</i>	PROJECT 585: <i>Aviation Combined Arms Tactical Trainer</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Required Interoperability with battle command systems and virtual simulators	2	2013	4	2017
Non-Rated Crew Member Manned Module (NCM3, a subsystem of AVCATT)	1	2014	4	2014