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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)					PE 0604780A / Combined Arms Tactical Trainer (CATT) Core							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	16.005	27.619	42.430	-	42.430	18.267	23.185	29.105	46.599	Continuing	Continuing
571: Close Cbt Tact Trainer	-	3.817	0.828	0.815	-	0.815	0.986	0.985	0.987	0.988	Continuing	Continuing
577: Gaming Technology In Support Of Army Training	-	1.310	2.117	1.769	-	1.769	1.966	2.215	2.302	2.364	Continuing	Continuing
582: Synthetic Envir Core	-	8.580	20.848	28.175	-	28.175	15.315	15.308	21.880	35.524	Continuing	Continuing
585: Aviation Combined Arms Tactical Trainer	-	2.298	3.826	11.671	-	11.671	-	4.677	3.936	7.723	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

Change Summary Explanation: AVCATT is required to design, develop and test new capabilities to enhance training in a combined mode with NCM3. SE CORE is required to generate Terrain Databases for Regionally Aligned Forces (RAF). 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 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

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Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core				
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 2015 base funding of \$.815 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.						
FY 2015 base funding of \$1.769 million for Games for Training will integrate the flagship product into the Live-Virtual-Constructive Integrated Training Environment (LVC-ITE).						
FY 2015 base funding of \$28.175 million will continue the efforts of providing expanded development and production for common terrain databases. FY 2015 funds will modify the Terrain Development process for constructive Terrain Database Production, continue to enhance OneSAF in the SE Core Architecture and database generation for Regionally Aligned Forces (RAF). Maintaining OneSAF for virtual simulations enables interoperability with the Live, Virtual, Constructive Integrated Training Environment (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.						
FY 2015 base funding of \$11.671 million will design, develop and test new capabilities to enhance training when using the AVCATT and NCM3 in combined mode, including improved communications, hoist operations, slingload operations, visual realism improvements, and enhanced After Action Review capabilities. It will also design new interfaces required for interoperability with ABCS systems and Contemporary Operating Environment (COE) Compliance with the Realtime/Safety Critical/Embedded Computing Environment (CE).						
B. Program Change Summary (\$ in Millions)		FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget		17.797	27.634	26.413	-	26.413
Current President's Budget		16.005	27.619	42.430	-	42.430
Total Adjustments		-1.792	-0.015	16.017	-	16.017
• Congressional General Reductions		-0.024	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-0.469	-			
• Adjustments to Budget Years		-0.003	-0.015	16.017	-	16.017
• Sequester Adjustments		-1.296	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core				Project (Number/Name) 571 / Close Cbt Tact Trainer			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
571: Close Cbt Tact Trainer	-	3.817	0.828	0.815	-	0.815	0.986	0.985	0.987	0.988	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
The Close Combat Tactical Trainer (CCTT) immersively and comprehensively trains Infantry, Armor, Mechanized Infantry, Cavalry and Armored Reconnaissance units from squad through Battalion/Squadron level, to include their staffs. The primary training audience operates from full-crew simulators, reconfigurable command posts, and live battalion command posts to accomplish their combined arms training tasks. CCTT is a ground based, collective training device composed of three systems: the CCTT, the Reconfigurable Vehicle Tactical Trainer (RVTT), and the Dismounted Soldier Training System (DSTS). CCTT is comprised of full fidelity, manned simulators for the M1 Abrams main battle tank, M2 Bradley Fighting Vehicles (BFV) variants, M3 Cavalry Fighting Vehicles (CFV), and the High Mobility, Multipurpose, Wheeled Vehicle (HMMWV). RVTT is a CCTT Reconfigurable Vehicle Simulator (RVS) comprised of full fidelity, manned simulators for the HMMWV and Heavy Expanded Mobility Tactical Truck (HEMTT). DSTS is a virtual trainer providing an ability to immerse the individual soldier into the synthetic virtual environment.												
FY 2015 core funding of \$.815 million for CCTT enables gaming technology for maneuver training, and the P3I for the CCTT, to include 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 2013	FY 2014	FY 2015	
Title: Government Program Management for the Close Combat Tactical Trainer (CCTT) program. Description: Government Program Management for the CCTT program. FY 2013 Accomplishments: Supported 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. FY 2015 Plans: Will support government program management, engineering, technical, contracting support, and continues operational evaluation support.									0.179	0.165	0.157	
									Articles: -	-	-	
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the CCTT DSTS.									3.638	0.663	0.658	

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Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core				Project (Number/Name) 571 / Close Cbt Tact Trainer				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2013	FY 2014	FY 2015
Articles: Description: Continue EMD phase contract activities for the CCTT DSTS. FY 2013 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 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. FY 2015 Plans: Will enable the P3I for the CCTT DSTS in support of Infantry Brigade Combat Teams, Stryker Brigade Combat Teams, Airborne, Ranger, Special Forces units and Armor Brigade Combat Teams.										-	-	-
Accomplishments/Planned Programs Subtotals										3.817	0.828	0.815
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
• OPA3, Appropriation NA0170: OPA3, Appropriation NA0170	19.958	30.063	13.406	-	13.406	50.516	28.575	44.116	53.957	Continuing	Continuing	
• OMA, Appropriation 121018000: OMA, Appropriation 121018000	-	1.600	-	-	-	-	-	-	-	Continuing	Continuing	
Remarks												
The RDT&E efforts are essential to provide enhancements for the hardware and software of the program to meet warfighter mission priorities and validated requirements. These enhancements, after proper testing, will be procured and fielded with the programs procurement funds.												
D. Acquisition Strategy												
FY 2015 will enable military gaming technology research for maneuver training and Pre-Planned Product Improvements (P3I) for the Dismounted Soldier Training System (DSTS).												
E. Performance Metrics												
N/A												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604780A / <i>Combined Arms Tactical Trainer (CATT) Core</i>						Project (Number/Name) 571 / <i>Close Cbt Tact Trainer</i>			
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	17.081	0.179	Dec 2012	0.165		0.157		-		0.157	Continuing	Continuing	Continuing
Subtotal			17.081	0.179		0.165		0.157		-		0.157	-	-	-
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	6.896	3.638	Apr 2013	0.663	Mar 2014	0.658	Mar 2015	-		0.658	Continuing	Continuing	Continuing
Subtotal			6.896	3.638		0.663		0.658		-		0.658	-	-	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			23.977	3.817		0.828		0.815		-		0.815	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core		Project (Number/Name) 571 / Close Cbt Tact Trainer	

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Development and P3I of the CCTT Dismounted Soldier Training System																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core	Project (Number/Name) 571 / Close Cbt Tact Trainer

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Development and P3I of the CCTT Dismounted Soldier Training System	2	2011	2	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core				Project (Number/Name) 577 / Gaming Technology In Support Of Army Training			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
577: Gaming Technology In Support Of Army Training	-	1.310	2.117	1.769	-	1.769	1.966	2.215	2.302	2.364	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 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) Program prepares soldiers and leaders for full-spectrum military operations in the Decisive Action/Unified Land Operations (DA/ULO) with robust training and mission rehearsal capabilities. The GFT program satisfies the Active, the National Guard, and the Army Reserves's educational requirements in the Operational, Institutional, and Self-Development Training Domains with a low-overhead, flexible, persistent training capability on geo-specific and geo-typical terrain that is relevant with all military platforms & weapon systems. FY 2015 base funding of \$1.769 million will integrate the flagship product into the Live, Virtual, Constructive/Integrated Training Environment (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 2013	FY 2014	FY 2015	
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Games for Training (GFT) program. Articles: Description: Continue EMD phase contract activities for the GFT program. FY 2013 Accomplishments: Funding provided modifications to the GFT system to ensure compliance with the LVC-IA in support of DA/ULO. FY 2014 Plans: Funding provides modifications to the GFT system to ensure compliance with the LVC-IA in support of DA/ULO. FY 2015 Plans: Funding will integrate the flagship product into the LVC-IA. It will also integrate new commercial and government technology products into the current gaming system.									0.971	1.751	1.400	
									-	-	-	
Title: Government Program Management for the GFT program. Articles:									0.339	0.366	0.369	
									-	-	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army								Date: March 2014			
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604780A / <i>Combined Arms Tactical Trainer (CATT) Core</i>				Project (Number/Name) 577 / <i>Gaming Technology In Support Of Army Training</i>			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
<p>Description: Government Program Management for the GFT program.</p> <p>FY 2013 Accomplishments: Government program management, engineering, technical, contract and test support for the GFT program.</p> <p>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.</p> <p>FY 2015 Plans: Government program management, engineering, technical, contract and test activities provide fielding, integration of software and web hosted support to Soldier tactical training.</p>			
Accomplishments/Planned Programs Subtotals	1.310	2.117	1.769

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPA 3: <i>OPA 3, Appropriation NA0176 Gaming Technology in Support of Army Training</i>	6.513	9.955	10.165	-	10.165	13.729	15.009	17.314	19.370	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
A combination of the transition of Government off the shelf and Commercial off the shelf products coupled with competitive contracting using the existing requirements documents and annual user Requirement Control Boards.											
E. Performance Metrics											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core						Project (Number/Name) 577 I Gaming Technology In Support Of Army Training			
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	0.598	0.339	Dec 2012	0.366		0.369		-		0.369	Continuing	Continuing	Continuing
Subtotal			0.598	0.339		0.366		0.369		-		0.369	-	-	-
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	2.603	0.971	Mar 2014	1.751	Jun 2014	1.400	Aug 2015	-		1.400	Continuing	Continuing	Continuing
Subtotal			2.603	0.971		1.751		1.400		-		1.400	-	-	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			3.201	1.310		2.117		1.769		-		1.769	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)		Project (Number/Name)	
2040 / 5		PE 0604780A / Combined Arms Tactical Trainer (CATT) Core		577 / Gaming Technology In Support Of Army Training	

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
LVC-ITE and other product integration into GFT																												
Flagship Verification Testing																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / <i>Combined Arms Tactical Trainer (CATT) Core</i>	Project (Number/Name) 577 / <i>Gaming Technology In Support Of Army Training</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
LVC-ITE and other product integration into GFT	1	2010	4	2019
Flagship Verification Testing	4	2013	4	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core				Project (Number/Name) 582 / Synthetic Envir Core			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
582: Synthetic Envir Core	-	8.580	20.848	28.175	-	28.175	15.315	15.308	21.880	35.524	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
<p>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.</p> <p>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.</p> <p>FY 2015 base funding of \$28.175 million will continue the efforts of providing expanded development and production for common terrain databases. FY 2015 funds will modify the Terrain Development process for constructive Terrain Database Production, continue to enhance OneSAF in the SE Core Architecture and database generation for Regionally Aligned Forces (RAF). Maintaining OneSAF for virtual simulations enables interoperability with the Live, Virtual, Constructive Integrated Training Environment (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.</p>												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Synthetic Environment Core (SE Core) program.									6.588	17.377	24.594	
									-	-	-	
Articles:												
Description: Continue EMD phase contract activities for the SE Core program.												
FY 2013 Accomplishments:												

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army									Date: March 2014		
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core				Project (Number/Name) 582 / Synthetic Envir Core			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015
Provided 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. FY 2015 Plans: Will provide expansion of the production capability to meet the growing demand for synthetic terrain for training including constructive simulations and Regionally Aligned Forces (RAF). Efforts to improve interoperability across simulators and simulations continue.											
Title: Government Program Management for the Synthetic Environment Core (SE Core) program. Articles: Description: Government Program Management for the SE Core program. FY 2013 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 2014 Plans: Provides program management, engineering and technical oversight, contract support, and travel for Subject Matter Experts for the development of SE Core. FY 2015 Plans: Will provide program management, engineering and technical oversight, contract support, and travel for support of site surveys and Subject Matter Experts for the development of SE Core.									1.992 -	3.471 -	3.581 -
Accomplishments/Planned Programs Subtotals									8.580	20.848	28.175
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OMA, Appropriation, 121014000: OMA, Appropriation 121014000, TBWG	4.450	9.982	5.673	-	5.673	17.022	17.499	20.183	24.378	Continuing	Continuing

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C. Other Program Funding Summary (\$ in Millions)												
	<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
Remarks												
D. Acquisition Strategy												
SE Core awarded Science Applications International Corporation (SAIC) a cost plus fixed fee (CPFF) contract in August 2011, with a period of performance start date of December 2011. This contract has a one year base with four option years. SE Core exercised the first option in December 2012 and second option in December 2013. At this time, SE Core continues to evaluate the contractor's performance and fully expects to exercise the third option in December 2014.												
E. Performance Metrics												
N/A												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core				Project (Number/Name) 582 / Synthetic Envir Core					
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	-		-		-		-		-	-	3.622	3.622
Government Program Management Support	Various	PEO STRI : Orlando, FL	16.979	1.992	Dec 2012	3.471	Dec 2013	3.581	Dec 2014	-		3.581	Continuing	Continuing	Continuing
Subtotal			20.601	1.992		3.471		3.581		-		3.581	-	-	-
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	-		-		-		-		-	-	6.946	6.946
Technology Development -Architecture and Integration	C/CPFF	SAIC : Orlando, FL	50.785	-		-		-		-		-	-	50.785	50.785
Technology Development -Database Virtual Environment Development	C/CPFF	CAE, USA : Orlando, FL	56.179	-		-		-		-		-	-	56.179	56.179
Technology Development- Common Virtual Environment & Management	C/CPFF	SAIC : Orlando, FL	11.604	6.588	Dec 2012	17.377	Dec 2013	24.594	Dec 2014	-		24.594	Continuing	Continuing	Continuing
Subtotal			125.514	6.588		17.377		24.594		-		24.594	-	-	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	-		-		-		-		-	-	0.125	0.125
Subtotal			0.125	-		-		-		-		-	-	0.125	0.125

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army													Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604780A / <i>Combined Arms Tactical Trainer (CATT) Core</i>					Project (Number/Name) 582 / <i>Synthetic Envir Core</i>					
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks Not Applicable															
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			146.240	8.580		20.848		28.175		-		28.175	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604780A / <i>Combined Arms Tactical Trainer (CATT) Core</i>			Project (Number/Name) 582 / <i>Synthetic Envir Core</i>

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Common Virtual Environment Management Contract Efforts																												
Net Ready (KPP #1)																												
SAF Development and Integration (KPP #2)																												
Terrain Database Development (KPP #3)																												
Dynamic Environmental Effects (KPP #4)																												
Battle Command Development (KPP #5)																												
Common Models (KPP #6)																												
Virtual Systems Architecture (KPP #7)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / <i>Combined Arms Tactical Trainer (CATT) Core</i>	Project (Number/Name) 582 / <i>Synthetic Envir Core</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Common Virtual Environment Management Contract Efforts	4	2011	1	2021
Net Ready (KPP #1)	1	2013	1	2021
SAF Development and Integration (KPP #2)	2	2006	1	2021
Terrain Database Development (KPP #3)	1	2008	1	2021
Dynamic Environmental Effects (KPP #4)	1	2008	1	2021
Battle Command Development (KPP #5)	1	2008	1	2021
Common Models (KPP #6)	1	2008	1	2021
Virtual Systems Architecture (KPP #7)	1	2011	1	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core				Project (Number/Name) 585 / Aviation Combined Arms Tactical Trainer			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
585: Aviation Combined Arms Tactical Trainer	-	2.298	3.826	11.671	-	11.671	-	4.677	3.936	7.723	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
The Aviation Combined Arms Tactical Trainer (AVCATT) is Army Aviation's only Collective Training System of Record for Active, Reserve and Army National Guard Aviation Units. AVCATT enables unit collective and combined arms air-ground training for AH-64, UH-60, CH-47, and OH-58 aircrews within the Live, Virtual, Constructive, & Gaming (LVC-G) Integrated Training Environment (ITE). The AVCATT also supports the training of Non-Rated crew members in crew coordination, flight, aerial gunnery, hoist and slingload related tasks via the Non-Rated Crewmember Manned Module (NCM3); which can be linked to AVCATT's UH-60 and CH-47 cockpit configurations to support a unit's specific Mission Training Requirements.												
FY 2015 base funding of \$11.671 million will design, develop and test new capabilities to enhance training when using the AVCATT and NCM3 in combined mode, including improved communications, hoist operations, slingload operations, visual realism improvements, and enhanced After Action Review capabilities. It will also design new interfaces required for interoperability with Mission Command Systems (MCS) and Contemporary Operating Environment (COE) compliance within the Realtime/Safety Critical/Embedded Computing Environment (CE). It will also design new interfaces and protocols for a Voice Communication System Upgrade to remain synchronized with improvements to tactical radios for Rotary Wing Aviation (RWA) platforms.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Engineering and Manufacturing Development (EMD) phase contract activity for the Aviation Combined Arms Tactical Trainer (AVCATT) program.									2.298	3.826	11.671	
									-	-	-	
Articles:												
Description: Continue EMD phase contract activities for the AVCATT program.												
FY 2013 Accomplishments:												
Developed the capability to transmit and receive Unmanned Aerial System (UAS) video feeds to/from the AVCATT helicopter platforms in support of Manned/Unmanned Teaming (MUM-T) Collective training requirements defined in the Capabilities Production Document (CPD).												
Research, design, and prototype alternate display solutions for the AVCATT visual system to improve quality and reliability while reducing life cycle costs.												

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army							Date: March 2014				
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604780A / <i>Combined Arms Tactical Trainer (CATT) Core</i>			Project (Number/Name) 585 / <i>Aviation Combined Arms Tactical Trainer</i>				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2013	FY 2014	FY 2015		
Design, develop, and test dynamic terrain capabilities for the AVCATT system to improve the simulated battlefield training capabilities for the Aviator. FY 2014 Plans: Design new capabilities to enhance training when using the AVCATT and NCM3 in combined mode, including improved communications, hoist operations, slingload operations, and visual system realism improvements. FY 2015 Plans: Design, develop, and test new capabilities to enhance training when using the AVCATT and NCM3 in a combined mode. Develop aerial gunnery training capabilities in NCM3, per CPD requirements. Design new interfaces required for interoperability with Mission Command Systems (MCS) and COE compliance within the Realtime/Safety Critical/Embedded Computing Environment. Design, develop, and test new interfaces and protocols for a Voice Communication System Upgrade to remain synchronized with improvements to tactical radios for the AVCATT RWA platforms.											
Accomplishments/Planned Programs Subtotals							2.298	3.826	11.671		
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPA3: OPA3, Appropriation NA0173 Aviation Combined Arms Tactical Trainer	11.962	34.913	14.440	-	14.440	37.008	35.752	37.541	38.233	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
Small Business Set Aside for new development efforts including AVCATT/NCM3 combined mode design, development, testing and future interoperability requirements.											
E. Performance Metrics											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604780A / Combined Arms Tactical Trainer (CATT) Core				Project (Number/Name) 585 / Aviation Combined Arms Tactical Trainer					
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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 Manned Unmanned Teaming (MUM-T)	C/CPFF	Applied Visual Technologies : Orlando, FL	0.000	1.880	Aug 2013	-		-		-		-	-	1.880	-
AVCATT Visual Display Research	C/CPFF	Batelle Memorial Institute : Columbus, OH	0.000	0.318	Dec 2013	-		-		-		-	-	0.318	-
AVCATT Dynamic Terrain	SS/CPFF	TBS : TBS	0.000	0.100	Jun 2014	-		-		-		-	-	0.100	-
AVCATT NCM3 Development	C/CPFF	TBS : TBS	0.000	-		3.826	Mar 2014	4.934	Feb 2015	-		4.934	-	8.760	-
AVCATT Interoperability	C/CPFF	TBS : TBS	0.000	-		-		2.788	May 2015	-		2.788	-	2.788	-
AVCATT Voice Communication Upgrade	C/TBD	TBS : TBS	0.000	-		-		2.767	Mar 2015	-		2.767	-	2.767	-
AVCATT Training Effectiveness Analysis	C/TBD	TBS : TBS	0.000	-		-		1.182	Mar 2015	-		1.182	-	1.182	-
Subtotal			0.000	2.298		3.826		11.671		-		11.671	-	17.795	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	2.298		3.826		11.671		-		11.671	-	17.795	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 5			R-1 Program Element (Number/Name) PE 0604780A / <i>Combined Arms Tactical Trainer (CATT) Core</i>		
			Project (Number/Name) 585 / <i>Aviation Combined Arms Tactical Trainer</i>		

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
AVCATT Manned Unmanned Teaming (MUM-T)																												
AVCATT Visual Display Research																												
Non-Rated Crew Member Manned Module (NCM3, a subsystem of AVCATT)																												
AVCATT Interoperability																												
AVCATT Voice Communication Upgrade																												
AVCATT Training Effectiveness Analysis																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604780A / <i>Combined Arms Tactical Trainer (CATT) Core</i>	Project (Number/Name) 585 / <i>Aviation Combined Arms Tactical Trainer</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
AVCATT Manned Unmanned Teaming (MUM-T)	4	2013	2	2015
AVCATT Visual Display Research	1	2014	1	2015
Non-Rated Crew Member Manned Module (NCM3, a subsystem of AVCATT)	2	2014	2	2017
AVCATT Interoperability	3	2015	3	2017
AVCATT Voice Communication Upgrade	2	2015	2	2017
AVCATT Training Effectiveness Analysis	2	2015	2	2016