

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2008

BUDGET ACTIVITY		PE NUMBER AND TITLE							
5 - System Development and Demonstration		0604780A - Combined Arms Tactical Trainer (CATT) Core							
COST (In Thousands)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	37683	36800	29468	20927	23643	15830	15035	Continuing	Continuing
571 CLOSE CBT TACT TRAINER	5569	1595	1686	1346	1370	1396	1422	Continuing	Continuing
582 SYNTHETIC ENVIR CORE	18881	23592	26418	18218	20915	14434	13613	Continuing	Continuing
585 AVIATION COMBINED ARMS TACTICAL TRAINER	13233	11613	1364	1363	1358				44783

A. Mission Description and Budget Item Justification: The Combined Arms Tactical Trainer (CATT) is 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. CATT reinforces the successes and corrects the shortcomings of the Simulator Network (SIMNET) and Aviation Network (AIRNET) Demonstration Programs executed by the Defense Advanced Research Projects Agency (DARPA). The initial CATT system is the Close Combat Tactical Trainer (CCTT), which provides the underlying baseline (architecture, terrain databases, After Action Review [AAR], Semi-Automated Forces [SAF], and models/algorithms) for future CATT expansions, pre-planned product improvements and system enhancements. Reconfigurable Vehicle Simulator (RVS) variants will support the level of readiness required by the user at CCTT fixed sites in support of convoy operations. 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 for operations currently required by the contemporary Operating Environment (COE). The first synthetic environments to be expanded are the Aviation Combined Arms Tactical Trainer (AVCATT) and the CCTT for both Active and Reserve components. By practicing skills in CATT, units are able to make more effective use of scarce resources and costly live fire and maneuver exercises as well as train tasks deemed too hazardous to conduct in the field. Fielded in both fixed site and mobile/transportable versions, CATT enables both Active and Reserve component units to prepare for real world contingency missions. By being able to process a wide array of terrain databases and modify the behavior of the computer generated opposing forces, CATT offers a virtually unlimited array of training options to support the Army's many regional contingency missions. The combination of tough field and live fire training and realistic simulation training in CATT is the catalyst to prepare soldiers and their leaders for the uncertainties they will face in an unpredictable world of current and future combat operations, especially in support of GWOT operations.

FY2009 funding for CCTT will provide the U.S. Army with additional variants for Reconfigurable Vehicle Simulator (RVS) in support of convoy operations and reconnaissance. FY2009 funds for SE Core will provide the U.S. Army with continued development of a series of interoperable software and hardware components that will enable an Army Common Virtual Environment to train with integrated virtual simulations. SE Core will provide standardized, rapid terrain generation process, a master terrain database facility, OneSAF Integration and Common Virtual Components (CVCs). FY2009 funding will develop refinements to the AVCATT system to include but not limited to: Armed Reconnaissance Helicopter capabilities and SE Core integration. Funding will also support interoperability with other combined arms simulators, life cycle baseline enhancements to the AVCATT infrastructure and technology obsolescence. These refinements will improve readiness by providing more realistic collective training in support of current and future combat operations, GWOT and the flexibility to support Army Campaign Plan.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2008

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604780A - Combined Arms Tactical Trainer (CATT) Core

<u>B. Program Change Summary</u>	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008/2009)	38471	37035	29652
Current BES/President's Budget (FY 2009)	37683	36800	29468
Total Adjustments	-788	-235	-184
Congressional Program Reductions		-235	
Congressional Rescissions			
Congressional Increases			
Reprogrammings	282		
SBIR/STTR Transfer	-1070		
Adjustments to Budget Years			-184

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2008

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604780A - Combined Arms Tactical Trainer (CATT) Core						PROJECT 571	
COST (In Thousands)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
571 CLOSE CBT TACT TRAINER	5569	1595	1686	1346	1370	1396	1422	Continuing	Continuing

A. Mission Description and Budget Item Justification: This program provides for System Development and Demonstration (SDD), Pre-Planned Product Improvements (P3I), and Reconfigurable Vehicle Simulator (RVS) variants for the Close Combat Tactical Trainer (CCTT), which will enhance readiness for both Active and Reserve component forces to support execution of current and future combat operations including the Global War on Terror (GWOT). The program develops 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. This trainer will allow soldiers to practice, repetitively, tactics, techniques and procedures 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. The pre-planned product improvements enhance CCTT capabilities as a tactical trainer and maintain concurrency with the structural changes the current battle force is experiencing. These improvements will provide the interoperability with Aviation Combined Arms Tactical Trainer, Army Battle Command System (ABCS) [including Force XXI Battle Command Brigade and Below (FBCB2) and Army Tactical Command and Control System (ATCCS)], and other simulation systems needed to execute training for current and future combat operations and for GWOT.

FY2009 funding for CCTT will enable the development of additional variants for Reconfigurable Vehicle Simulator (RVS) in support of convoy operations and reconnaissance training.

<u>Accomplishments/Planned Program:</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY07-FY09: Supports government program management, engineering, technical contract, and continue operational evaluation support.	247	224	228
FY07-FY09: Continue development of RVS variants and design for obsolescence items.	2802	1344	1458
FY07: Provided integrated multi-sided computer generated forces into the CCTT program, Dismounted Infantry Common Moving Models, urban and high resolution inserts in the Database process, OneSAF Terrain Format plug-in to produce computer generated databases to be used in CCTT and Common Virtual Components for CCTT in the areas of AAR, LHN and C4SIR.	2520		
FY08: Small Business Innovative Research/Small Business Technology Transfer Programs		27	
Total	5569	1595	1686

<u>B. Other Program Funding Summary</u>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
OPA3, Appropriation NA0170 SIMNET/CCTT	16344	66669	60676	40431	12092	6767	6916	Continuing	Continuing

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2008

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604780A - Combined Arms Tactical Trainer (CATT) Core

PROJECT

571

Comment:

C. Acquisition Strategy FY07 is a Small Business 8A Set Aside Award for development of RVS variants.

FY08/09 will continue development of Small Business 8A Set Aside Award for development of RVS variants.

ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604780A - Combined Arms Tactical Trainer (CATT) Core							571		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
CCTT SDD and Pre Planned Product Improvements (P3I)	Various	Various	245042								245042	245042
P3I and Development of RVS variants	C/CPFF	Lockheed Martin Corporation, Orlando, FL	10178								10178	9713
Development of RVS Variants	SS/FP	DEI Services Corp., Winter Park, FL		2802	3Q					Cont.	Cont.	Cont.
Continued Development of RVS Variants and Obsolescence Items	C/CPFF	DEI Services Corp., Winter Park, FL				1344	1Q	1458	1Q	Cont.	Cont.	Cont.
Dismounted Infantry Soldier-level collective simulation requirements for CCTT	C/CPFF	Various		2520	2Q						2520	
Subtotal:			255220	5322		1344		1458		Cont.	Cont.	Cont.
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering and Technical Support	MIPRs/T&M	Various activities	32062								32062	
Subtotal:			32062								32062	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												

ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604780A - Combined Arms Tactical Trainer (CATT) Core

PROJECT
571

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Project Office Support	Various	PEO STRI/NAVAIR, Orlando, FL	15910	247	1-4Q	224	1-4Q	228	1-4Q	Cont.	Cont.	Cont.
SBIR/STTR						27					27	
Subtotal:			15910	247		251		228		Cont.	Cont.	Cont.
Project Total Cost:			303192	5569		1595		1686		Cont.	Cont.	Cont.

Schedule Profile (R4 Exhibit)

February 2008

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604780A - Combined Arms Tactical Trainer (CATT) Core

PROJECT
571

Event Name	FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13							
	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				
P3I and Development of RVS Variants	█																															
Develop Reconfigurable Vehicle Simulator Variants and Obsolescence Items					█																											
Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items									█																							
Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items													█																			
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Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items																									█							
Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items																													█			
Dismounted Infantry Soldier-level collective simulation requirements for CCTT					█																											

Schedule Detail (R4a Exhibit)

February 2008

**BUDGET ACTIVITY
5 - System Development and Demonstration**

**PE NUMBER AND TITLE
0604780A - Combined Arms Tactical Trainer (CATT) Core**

**PROJECT
571**

<u>Schedule Detail</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
P3I and Development of RVS Variants	1Q - 2Q						
Develop Reconfigurable Vehicle Simulator Variants and Obsolescence Items	2Q - 4Q	1Q - 2Q					
Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items		1Q - 4Q	1Q				
Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items			1Q - 4Q	1Q			
Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items				1Q - 4Q	1Q		
Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items					1Q - 4Q	1Q	
Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items						1Q - 4Q	1Q
Develop Additional Reconfigurable Vehicle Sim. Variants and Obsolescence Items							1Q - 4Q
Dismounted Infantry Soldier-level collective simulation requirements for CCTT	2Q - 4Q	1Q - 4Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2008

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604780A - Combined Arms Tactical Trainer (CATT) Core						PROJECT 582	
COST (In Thousands)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
582 SYNTHETIC ENVIR CORE	18881	23592	26418	18218	20915	14434	13613	Continuing	Continuing

A. Mission Description and Budget Item Justification: This project supports the Synthetic Environment Core (SE Core) and is the Army's Common Virtual Environment (CVE) answer for linking virtual training simulations into an integrated and interoperable training system with fair fight capability that is sufficient for current and future combat operations, Mission Rehearsal, and Contemporary Operating Environment (COE) training. SE Core will reduce redundancy, increase realism and facilitate an integrated Live, Virtual and Constructive (LVC) Training Environment (TE). This CVE will link to the live and constructive environments for an integrated LVC capability to support Army Transformation and the Combined Arms Training Strategy. SE Core is a key element in the Army's Training Transformation Plan linking the Future Combat Systems (FCS) embedded multi-mode LVC training capability with Current Systems, Stryker Forces and Joint Interagency Intergovernmental Multinational (JIIM) simulations.

SE Core will enable the Army to execute combined arms and joint training, mission planning and rehearsals at home station, en route and deployed locations critical to training for COE operations. SE Core consists of a series of interoperable software components that will be integrated into the Army's CVE and will facilitate interoperability in a LVC TE. The components are One Semi-Automated Forces (OneSAF) integration; a Standard Terrain Database Generation Capability (STDGC); a master Terrain Database; open format standard visual models; dynamic terrain; atmospheric effects; Chemical, Biological, Radiological, Nuclear and High Explosive (CBRNE) effects; common After Action Review (AAR); a long haul networking capability; Command, Control, Communications, Computers, Intelligence Surveillance and Reconnaissance (C4ISR) interfaces; training support packages and exercise management tools. The STDGC uses automated tools, processes and standard source data to create a Master Database (MDB). The MDB provides open format data that can be translated into correlated runtime databases to support the LVC TE and for mission planning/rehearsal/execution in an operational environment. Once developed, SE Core's Common Virtual Components (CVCs) will reduce redundancy, increase realism and facilitate an integrated LVC TE.

FY2009 funds for SE Core will provide common terrain databases from the Central Terrain Database Center and the establishment of one CONUS and one OCONUS Terrain Database Center. FY2009 funds will also continue the integration of OneSAF into the SE Core Architecture. OneSAF will replace the SAFs currently supporting CCTT and AVCATT. Integration of OneSAF as the SAF for virtual simulations enables interoperability with the LVC TE and reduces costs as CCTT and AVCATT will no longer develop and maintain separate SAFs. The SE Core Long Haul Network will continue with upgrades in integration and common visual models will continue development.

Accomplishments/Planned Program:	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY07-FY09: Provides program management, engineering, technical, contract, and test support for development of SE Core.	2404	2953	4025
FY07-FY09: SE Core will provide common terrain databases from the Central Terrain Database Center and the establishment of CONUS and OCONUS Terrain Database Centers. Continued refinement of the STDGC will be made with the incorporation of advanced automated processing tools. Planned enhancements to OneSAF will continue to be integrated into the SE Core Architecture. Six Common Virtual Components will be added - CBNRE, Net Ready capability, Atmospheric Effects, Dynamic Terrain, Exercise Management Tools, and Training Support Packages. Common Model development will continue.	16477	19979	22393
FY08: Small Business Innovative Research/Small Business Technology Transfer Programs		660	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2008

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604780A - Combined Arms Tactical Trainer (CATT) Core	PROJECT 582
Total	18881	23592

<u>B. Other Program Funding Summary</u>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
OPA3, Appropriation NA0173 Aviation Combined Arms Tactical Trainer	77871	66931	23106	10207	10439	10275	8021	Continuing	Continuing
OPA3, Appropriation NA0170 Close Combat Tactical Trainer (CCTT)	16344	66669	60676	40431	12092	6767	6916	Continuing	Continuing
RDTE, Appropriation 654760 One Semi-Automated Forces (OneSAF)	15233	12809	11784	11911	12040	12306	12576	Continuing	Continuing

Comment:

C. Acquisition Strategy An extension to the Architecture & Integration (A&I) contract was awarded to Science Applications International Corp. in 1 QTR FY08. The A&I contract will be recompeted in 4 QTR FY09. A competitive CPFF type contract for the development of SE Core Database Virtual Environment Development project was awarded in FY06 to CAE with options to be executed yearly until FY11.

ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604780A - Combined Arms Tactical Trainer (CATT) Core							582		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Architecture and Integration	C/CPFF	Science Applications International Corporation, Orlando, FL	12690	10475	1Q	10488	1-2Q	8291	1-2Q	Cont.	Cont.	Cont.
Master Database (MDB) Study	C/CPFF	Various	2011								2011	2011
Database Virtual Environment Development	C/CPFF	CAE, USA, Tampa, FL	8937	6002	1Q	9491	1-2Q	14102	1-2Q	Cont.	Cont.	Cont.
Subtotal:			23638	16477		19979		22393		Cont.	Cont.	Cont.
Remarks: Not Applicable												
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services & Technical Support	C/FFP/T&M	Morgan Research Corporation, Orlando, FL	539	476	1Q	488	1-4Q	497	1-4Q	Cont.	Cont.	Cont.
Subtotal:			539	476		488		497		Cont.	Cont.	Cont.
Remarks: Not Applicable												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Test Support	MIPR	Test Community				125	2Q				125	125
Subtotal:						125					125	125
Remarks: Not Applicable												
IV. Management Services	Contract	Performing Activity &	Total	FY 2007	FY 2007	FY 2008	FY 2008	FY 2009	FY 2009	Cost To	Total	Target

ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604780A - Combined Arms Tactical Trainer (CATT) Core							582		
	Method & Type	Location	PYs Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Complete	Cost	Value of Contract
Project Office Support	Various	PEO STRI/NAVAIR Orlando	3363	1928	1-4Q	2340	1-4Q	3528	1-4Q	Cont.	Cont.	Cont.
SBIR/STTR						660					660	
Subtotal:			3363	1928		3000		3528		Cont.	Cont.	Cont.
Project Total Cost:			27540	18881		23592		26418		Cont.	Cont.	Cont.

Schedule Profile (R4 Exhibit)

February 2008

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604780A - Combined Arms Tactical Trainer (CATT) Core

PROJECT
582

Event Name	FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	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
Architecture and Integration Development																												
Database Virtual Environment Development																												

Schedule Detail (R4a Exhibit)

February 2008

**BUDGET ACTIVITY
5 - System Development and Demonstration**

**PE NUMBER AND TITLE
0604780A - Combined Arms Tactical Trainer (CATT) Core**

**PROJECT
582**

<u>Schedule Detail</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Architecture and Integration Development	1Q - 4Q						
Database Virtual Environment Development	1Q - 4Q						
OneSAF Integration (KPP #1)	1Q - 4Q						
Standard Terrain Process Capability Complete (KPP #2)	1Q - 4Q	1Q - 4Q					
Database Centers (KPP #2 Follow-on)	2Q - 4Q	1Q - 4Q					
Dynamic Terrain Complete (KPP #3)				2Q			
Atmospheric Effects Complete (KPP #4)				2Q			
Net Ready Complete (KPP #5)					2Q		
C4ISR Complete (KPP #6)			4Q				

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2008

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604780A - Combined Arms Tactical Trainer (CATT) Core						PROJECT 585	
COST (In Thousands)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
585 AVIATION COMBINED ARMS TACTICAL TRAINER	13233	11613	1364	1363	1358				44783

A. Mission Description and Budget Item Justification: This project supports the Aviation Combined Arms Tactical Trainer (AVCATT) which is an Army Aviation Collective training system for both the Active and Reserve Component to provide mission rehearsal and training in support of the Global War on Terrorism (GWOT). AVCATT completed Initial Operational Test & Evaluation (IOT&E) on 1 August 2003 and received Full Rate Production Decision on 19 December 2003. A single suite of equipment consists of two (2) mobile trailers housing six (6) reconfigurable networked simulators that support the AH-64A/D, UH-60A/L, CH-47D, and OH-58D aircraft. In the future the Armed Reconnaissance Helicopter (ARH) will be added. Supporting 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 utilizing shore and generator power and is transportable worldwide. The AVCATT system will permit various aviation units to conduct collective task training on a real-time, computerized battlefield in a combined arms scenario by leveraging Synthetic Environment Core (SE Core) capabilities. Other required elements that are present on the modern, high intensity battlefield, such as the Combat Support (CS) and Combat Service Support (CSS) elements are an integral part of the simulation database. AVCATT is designed to provide realistic, high intensity collective and combined arms training to aviation units as well as the full spectrum of operations in support of current and future combat operations including GWOT. AVCATT supports Aviation Combined Arms Training Strategy, Army Campaign Plan and GWOT. AVCATT also supports Aviation Functional Area Assessment (FAA), providing collective, combined arms training. This system is designated a complementary program for the Future Combat Systems (FCS).

FY2009 funding will develop refinements to the AVCATT system to include but not limited to: ARH capabilities and SE Core integration. Funding will also support interoperability with other combined arms simulators, life cycle baseline enhancements to the AVCATT infrastructure and technology obsolescence.

<u>Accomplishments/Planned Program:</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY07-FY09: Continues enhancement efforts on the SEE and classified operations capabilities. Initiates Phase II to integrate into AVCATT and SEE the first article development of the new Image Generator. Continue refinements to the system to include: ARH development, support to interoperability with other combined arms simulators through implementation of SE Core common products such as OneSAF, Common Virtual Components (CVC) and common data bases. In addition, provide improved interoperability and improved interaction between live and virtual systems.	11071	11178	1251
FY07 Congressional adds for AVCATT Gunner Chief Crew Station (GCCS) and Longbow Block III.	2000		
FY07-FY09: Provides Government program management, engineering, technical, contract, and test support for AVCATT refinements.	162	110	113
Small Business Innovative Research (SBIR)/Small Business Technology Transfer Programs (STTR)		325	
Total	13233	11613	1364

<u>B. Other Program Funding Summary</u>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2008

BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604780A - Combined Arms Tactical Trainer (CATT) Core					PROJECT 585	
OPA3, Appropriation NA0173 Aviation Combined Arms Tactical Trainer	77871	66931	23106	10207	10439	10275	8021	Continuing	Continuing

Comment:

C. Acquisition Strategy System Development and Demonstration (SDD) competitive contract against performance specification.

ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604780A - Combined Arms Tactical Trainer (CATT) Core							585		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
AVCATT	C/CPAF/FPIF/FFP	L3 Communications Corpotion, Arlington, TX	15508	13071	2-4Q	11178	2-3Q	1251	2-3Q	Cont.	Cont.	Cont.
Subtotal:			15508	13071		11178		1251		Cont.	Cont.	Cont.
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Project Office Support	Mutlple	PEO STRI, Orlando, FL	344	162	1-4Q	110	1-4Q	113	1-4Q	Cont.	Cont.	Cont.
SBIR/STTR						325					325	
Subtotal:			344	162		435		113		Cont.	Cont.	Cont.

ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604780A - Combined Arms Tactical Trainer (CATT) Core						PROJECT 585		
Project Total Cost:	15852	13233		11613		1364	Cont.	Cont.	Cont.

Schedule Profile (R4 Exhibit)

February 2008

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604780A - Combined Arms Tactical Trainer (CATT) Core

PROJECT
585

Event Name	FY 07				FY 08				FY 09				FY 10				FY 11				FY 12				FY 13			
	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
Synthetic Environment Core (SE Core) Integration (includes OneSAF Integration)	█				█				█																			
Mission Rehearsal Capability/Enhanced Image Generator (IG)	█				█				█																			
Required Interoperability With Other Combined Arms Simulators	█				█				█				█				█											
Life Cycle Baseline Enhancements to the Infrastructure & Technology Obsolescence	█				█				█				█				█											
Software Engineering Environment Enhancement (SEE)	█				█																							
Classified Operations	█				█				█																			
Armed Reconnaissance Helicopter Development									█				█															
Gunner Chief Crew Station			█				█																					
Longbow Block III			█				█																					

Schedule Detail (R4a Exhibit)

February 2008

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604780A - Combined Arms Tactical Trainer (CATT) Core

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<u>Schedule Detail</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Synthetic Environment Core (SE Core) Integration (includes OneSAF Integration)	1Q - 4Q	1Q - 4Q	1Q - 2Q				
Mission Rehearsal Capability/Enhanced Image Generator (IG)	1Q - 4Q	1Q - 4Q	1Q - 2Q				
Required Interoperability With Other Combined Arms Simulators	1Q - 4Q						
Life Cycle Baseline Enhancements to the Infrastructure & Technology Obsolescence	1Q - 4Q						
Software Engineering Environment Enhancement (SEE)	1Q - 4Q						
Classified Operations	1Q - 4Q	1Q - 4Q					
Armed Reconnaissance Helicopter Development		3Q - 4Q	1Q - 4Q				
Gunner Chief Crew Station	2Q - 4Q	1Q - 2Q					
Longbow Block III	2Q - 4Q	1Q - 2Q					