February 2006

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

### 0604780A - COMBINED ARMS TACTICAL TRAINER (CATT)

_	<u>-</u>									
	COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	16304	43344	39901	45486	32587	21913	25432	Continuing	Continuing
571	CLOSE CBT TACT TRAINER	5347	6158	3198	2875	2917	0	0	0	29073
577	SOLDIER - COMBINED ARMS TACTICAL TRAINER	0	2957	2539	2599	577	609	497	Continuing	Continuing
582	SYNTHETIC ENVIR CORE	7796	20897	22498	26825	27559	19769	23415	Continuing	Continuing
585	AVIATION COMBINED ARMS TACTICAL TRAINER	3161	13332	11666	13187	1534	1535	1520	0	45935

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. 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 Global War on Terror (GWOT). The first synthetic environment to be expanded is the Aviation Combined Arms Tactical Trainer (AVCATT) for both Active and Reserve components. 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). Soldier CATT is a dismountcentric collective virtual training system designed to train dismounted soldiers, leaders and units (platoon through battalion). Soldier-CATT provides light infantry, Stryker Brigade Combat Team (SBCT), Ranger, SOF and Land Warrior equipped Brigade Combat Team (BCT) commanders a highly tolerable, deployable, collective combined arms training and mission rehearsal system with an AAR capability. It provides the soldier/leader a virtual link into the Live, Virtual, and Constructive training environment and provides the core architecture that will enable dismounted infantry for Future Combat System (FCS) equipped Unit of Action units. 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.

FY2007 funding for CCTT will provide the U.S. Army with additional variant for Reconfigurable Vehicle Simulator (RVS) in support of convoy operations. FY07 funds for Soldier CATT will provide the U.S. Army with a proof of concept with key components (Virtual Warrior, Master Control/After Action Review Console and Semi-Automated Forces Interface) for a Virtual Collective Combined Arms Virtual Training System supporting dismounted/mounted leader and Soldier training tasks at the squad level. FY07 funds for SE Core will provide the U.S. Army with continued development of a Standardized and Dynamic Terrain Database generation process, Objective OneSAF Integration and Common Virtual Components (CVCs). FY07 funding will develop Engineering Change Proposals (ECPs) for refinements to the AVCATT system to include: Classified

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ARMY RDT&E BUDGET ITEM	I JUSTIFICATION (R2 Exhibit)	February 2006
BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604780A - COMBINED ARMS TACTICAL TRAIN	JER (CATT)
	Image Generator (IG) capabilities. Funding will also support interoperabilities astructure and technical obsolescence, and will improve readiness by provine flexibility to support Army modularity.	

## ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit) BUDGET ACTIVITY PE NUMBER AND TITLE

February 2006

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0604780A - COMBINED ARMS TACTICAL TRAINER (CATT)

	FY 2005	FY 2006	FY 2007
B. Program Change Summary			
Previous President's Budget (FY 2006)	18316	37471	40134
Current BES/President's Budget (FY 2007)	16304	43344	39901
Total Adjustments	-2012	5873	-233
Congressional Program Reductions		-190	
Congressional Rescissions		-437	
Congressional Increases		6500	
Reprogrammings	-2012		
SBIR/STTR Transfer			
Adjustments to Budget Years			-233

Change Summary Explanation: Funding - FY05: funds realigned (-\$2.012 Million) to higher priority requirements. Funding - FY06: Congressional plus up of \$3.0 Million for Gunner-Crew Station Trainer Capability and \$3.5 Million in support of AVCATT.

February 2006

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

PROJECT

571

	_									
		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total Cost
	COST (In Thousands)	Estimate	Complete							
571	CLOSE CBT TACT TRAINER	5347	6158	3198	2875	2917	0	0	0	29073

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.

FY2007 funding for CCTT will provide the U.S. Army with additional variant for Reconfigurable Vehicle Simulator (RVS) in support of convoy operations.

Accomplishments/Planned Program	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY06-FY07: Develops RVS variants	0	5941	2977
FY05-FY07: Supports government program management, engineering, technical contract, and continue operational evaluation support.	781	217	221
FY05: Completed refinements to digitial capabilities, enhanced After Action Review (AAR), enhanced Dismounted Infantry Manned Modules, and nonsystem weapons concurrency upgrades. Began development efforts for RVS and completed the Mobile Theater AAR capability.	4566	0	0
Total	5347	6158	3198

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA3, Appropriation NA0170 SIMNET/CCTT	58305	82926	16920	33251	34507	34395	6682	CONT	CONT

0604780A (571) CLOSE CBT TACT TRAINER Item No. 107 Page 4 of 25

588

		Febru	ıary 2006
BUDGET ACTIVITY 5 - System Development and Demonstration		(CATT)	PROJECT <b>571</b>
C. Acquisition Strategy FY05 award was CPFF competitively a	warded to LM STS for development of CCTT Reconfigurable Vehicle Simulato	r (RVS).	
FY06 funding is incremental funding for continued performance	and incorporation of additional capabilities to CCTT RVS.		

ARMY RDT8	E COST	Γ ANALYSIS	(R3)							February	y <b>2006</b>	
BUDGET ACTIVITY 5 - System Development a	nd Demons	tration	PE NUMBE <b>0604780</b>			ARMS T	ГАСТІС	AL TRA	INER (	CATT)	PROJEC <b>571</b>	СТ
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
CCTT SDD and Pre Planned Product Improvements (P3I)	Various	Various	245042	0		0		0		0	245042	245042
P3I and Development of RVS variants	C/CPFF	Lockeheed Martin Corporation, Orlando, FL	0	4566	3Q	5941	1Q	2977	1Q	5292	18776	18776
Subtot	al:	1	245042	4566		5941		2977		5292	263818	263818
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
Engineering and Technical Support	MIPRs/T&M	Various activities	32062	0		0		0		0	32062	C
Subtot	1	1	32062	0		0		0		0	32062	C
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
Subtot		1	0									
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Project Office Support	MIPR	PEO STRI/NAVAIR, Orlando, FL	14912	781	1-4Q	217	1-4Q	221	1-4Q	500	16631	C

0604780A (571) CLOSE CBT TACT TRAINER Item No. 107 Page 6 of 25 590 Exhibit R-3 ARMY RDT&E COST ANALYSIS

ARMY RDT&E COST ANALY		February 2006				
BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604780A - COMB	PROJECT <b>571</b>				
Project Total Cost:	292016 5347	6158	3198	5792	312511	263818

0604780A (571) CLOSE CBT TACT TRAINER Item No. 107 Page 7 of 25 591

Exhibit R-3 ARMY RDT&E COST ANALYSIS

Schedule Profile (R4 Exhibit)	)														February 2006								
BUDGET ACTIVITY  5 - System Development and Demonstration		PE NUMBER AND TITLE 0604780A - COMBINED ARMS TACTICAL TR									TRA	PROJECT RAINER (CATT) 571											
<b>Event Name</b>		FY 05			Y 06			7 07			FY				FY 0				7 10			FY 1	
P3I and Development of RVS Variants	1	2 3	4	1 2	3	4 1	1 2	3	4	1	2	3	4	1   :	2 :	3 4	1	2	3	4	1	2	3

# Schedule Detail (R4a Exhibit) BUDGET ACTIVITY 5 - System Development and Demonstration February 2006 PE NUMBER AND TITLE 0604780A - COMBINED ARMS TACTICAL TRAINER (CATT) PROJECT 571

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Mobile Theater AAR Delivery	2Q						
Joint Close Air Support Improvements Delivery	2Q						
Reconfigurable Vehicle Simulator Variant Awards	3Q	1Q	1Q	1Q	1Q		
Reconfigurable Vehicle Simulator Variant Deliveries		2Q	1Q	1Q	1Q	1Q	

February 2006

5 - System Development and Demonstration

**PROJECT** 

577

BUDGET ACTIVITY

0604780A - COMBINED ARMS TACTICAL TRAINER (CATT)

							•		
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total Cost
COST (In Thousands)	Estimate	Complete							
577 SOLDIER - COMBINED ARMS TACTICAL TRAINER	0	2957	2539	2599	577	609	497	Continuing	Continuing

PE NUMBER AND TITLE

A. Mission Description and Budget Item Justification: This project supports Soldier Combined Arms Tactical Trainer (CATT) which is a collective combined arms virtual training system supporting dismounted/mounted leader and soldier training tasks. It will enable more frequent, repetitive, standards-based training to build and sustain readiness at home station. Soldier CATT combines immersive soldier and leader simulators called "Virtual Warrior" (VW) with PC-based Reconfigurable Vehicle Simulators, Dismounted Soldier Multifunctional Workstations, and high fidelity convoy trainers to support training of leaders and Soldiers from squad/crew to company with extensions to individual Soldier and battalion echelons. Soldier CATT will enable training on the full-spectrum of operations required by current and future combat operations including the Global War on Terror (GWOT) in urban and complex terrain environments.

FY07 funds for Soldier CATT will provide the U.S. Army with a proof of concept with key components (Virtual Warrior, Multifunction Workstation, Master Control/After Action Review Console and Semi-Automated Forces Interface) for a Virtual Collective Combined Arms Virtual Training System supporting dismounted Soldier leader training tasks at the squad level to support GWOT.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
FY06: Congressional plus up funding supports a Gunner-Crew Chief Station Trainer Capability.	0	2957	0
FY07: Begins development of VW component and squad test suite (proof of concept) with Dismounted Infantry (DI) and Civilian Models, OneSAF Synthetic Natural Environment (SNE), and Semi Automated Forces/Combat Instruction Sets (SAF/CIS).	0	0	2122
FY07: Program office support.	0	0	417
Total	0	2957	2539

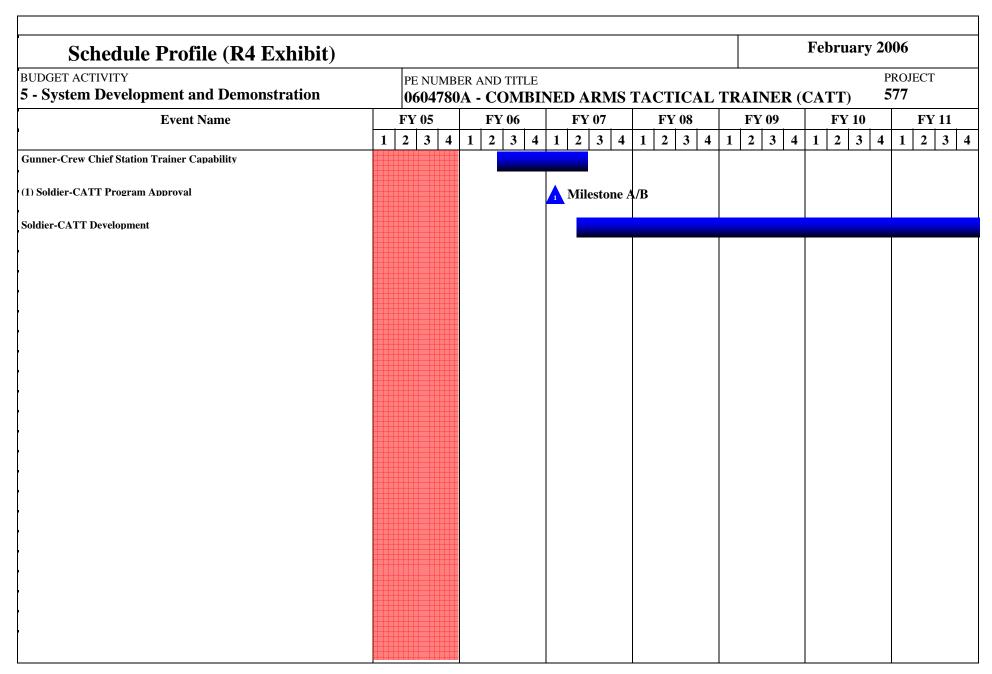
**C.** Acquisition Strategy Planned for competitive cost type contract.

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Exhibit R-2A **Budget Item Justification** 

ARMY RDT&	E COST	ANALYSIS	(R3)							Februar	y 2006	
BUDGET ACTIVITY  5 - System Development a	nd Demons	tration	PE NUMBE <b>0604780</b>			ARMS T	ГАСТІС	AL TRA	AINER (	CATT)	PROJEC <b>577</b>	CT CT
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
Gunner-Crew Chief Station Trainer Capability	C/CPAF/FPIF/ FFP	L3 Communications Corporation, Arlington, Texas	0	0		2957	2Q	0		0	2957	2957
Soldier CATT Developement	C/CPFF	TBS	0	0		0		2122	2Q	Continue	Continue	Continue
Subtota	al:		0	0		2957		2122		Continue	Continue	Continue
II. Support Costs	Contract Method &	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award	FY 2006 Cost	FY 2006 Award	FY 2007 Cost	FY 2007 Award	Cost To Complete	Total Cost	Targe Value o
Program Support	Type C-FFP-TM	Morgan Research Corporation, Orlando, FL	0	0	Date	0	Date	192	Date 2Q	Continue	Continue	Continue
Subtota	1 al:		0	0		0		192		Continue	Continue	Continue
III. Test And Evaluation	Contract Method &	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award	FY 2006 Cost	FY 2006 Award	FY 2007 Cost	FY 2007 Award		Total Cost	Targe Value o
	Туре	Bootation	1 15 Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	Contract
Subtota	al:		0									
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
Program Office Support		PEO STRI/NAVAIR, Orlando, FL	0	0		0		225	1-4Q	Continue	Continue	Continue
C 1	Subtotal:			0	-	0		225		Continue	Continue	Continue

ARMY RDT&E COST ANALY	SIS (R3)				February 2006				
BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER A <b>0604780A -</b>		ED ARMS TACT	ICAL TRAINE	CR (CATT)	PROJEC <b>577</b>	CT		
Project Total Cost:	0	0	2957	2539	Continue	Continue	Continue		
							Į.		



## Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - System Development and Demonstration

0604780A - COMBINED ARMS TACTICAL TRAINER (CATT)

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Gunner-Crew Chief Station Trainer Capability Award		2Q					
S-CATT Development and Squad Level Capability (Proof of Concept) Award			2Q				
S-CATT Development and Squad Level Capability (Proof of Concept) Delivery				2Q			
Test at Multiple Squad Level				3Q			
Develop a Platoon Level Capability with System Upgrades/Enhancements (Award)				1Q			
Platoon Level Capability Delivery					2Q		
P3I Software/Hardware Insertion Award					1Q	1Q	1Q
P3I Software/Hardware Insertion Delivery					4Q	4Q	4Q

February 2006

BUDGET ACTIVITY
PE NUMBER AND TITLE
PROJECT
5 - System Development and Demonstration
PE NUMBER AND TITLE
PROJECT
582

		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total Cost
	COST (In Thousands)	Estimate	Complete							
582	SYNTHETIC ENVIR CORE	7796	20897	22498	26825	27559	19769	23415	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) to link virtual training simulations into an integrated and interoperable training system with fair fight capability that is sufficient for current and future combat operation Mission Rehearsal and Global War on Terror (GWOT) training. This CVE will link to the live and constructive environments for an integrated Live/Virtual/Constructive LVC capability to support Army Transformation and Combined Arms Training Strategy. SE Core is a key element in the Army's Training Transformation Plan to link the Future Combat Systems' (FCS) embedded multi-mode LVC training capability with Current and Stryker Forces and Joint Interagency Intergovernmental Multinational (JIIM) simulations.

Under SE Core, current and future virtual training devices 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 GWOT operations. SE Core consists of a series of interoperable software components that will be integrated into virtual simulations, enabling the Army's CVE and facilitating interoperability in a LVC Training Environment (TE). The components are Objective OneSAF (OOS) integration, standard rapid Terrain DataBase (TDB) generation process, master TDB 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 standard TDB generation process 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.

FY2007 funds for SE Core will provide the U.S. Army with a Standardized and Dynamic Terrain Database generation process, Objective OneSAF integration and CVCs.

Accomplishments/Planned Program	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY05-FY07: Provides program management, engineering, technical, contract, and test support for development of SE Core.	1832	2070	2157
FY05-FY07: Provides architecture and integration (integration of OOS into AVCATT and CCTT, development of a Virtual Simulation Architecture (VSA), Atmospheric effects for a Common Virtual Environment, Net Ready Capabilities, Exercise Management Tools, Long Haul Networking Component, Training Support Packages to support Combined Arms Training in AVCATT and CCTT). Integrated capabilities support GWOT training requirements.	3953	9313	13540
FY05-FY07: Provides Master Database (MDB)& Facilities (Standardized Terrain Database, MDB, Urban Operations Insets and Visual Models for a Common Virtual Environment).	2011	9514	6801
Total	7796	20897	22498

0604780A (582) SYNTHETIC ENVIR CORE Item No. 107 Page 15 of 25

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ARMY RDT&E BUDGET	TITEM J	USTIF	<b>CATIO</b>		February 2	2006			
BUDGET ACTIVITY 5 - System Development and Demonstration	on		ER AND TITLI A - COMB		MS TACTI	CAL TRA	INER (CAT	DJECT 2	
B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
OPA3, Appropriation NA0173 Aviation Combined Arms Tactical Trainer	51949	70342	80555	73086	29021	16172	16536	CONT	CONT
OPA3, Appropriation NA0170 Close Combat Tactical Trainer (CCTT)	58305	82926	16920	33251	34507	34395	6682	CONT	CONT

C. Acquisition Strategy A competitive CPFF type contract for development of SE Core Architecture & Integration was awarded in FY05 and is underway.

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ARMY RDT	&E COST	Γ ANALYSIS	(R3)							Februar	y 2006							
BUDGET ACTIVITY  5 - System Development a	and Demons	stration	PE NUMBE <b>0604780</b>			ARMS '	ГАСТІС	LAL TRA	AINER (	CATT)	PROJECT 582  Total Cost Value of Contract Continue Continue  Total Cost Value of Continue  Total Continue Continue Continue  Total Continue							
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete		Target Value of Contract						
Architecture and Integration	C/CPFF	Science Applications International Corporation, San Diego, CA	0	3953	3Q	9313	1Q	13540	1Q	Continue	Continue	Continue						
Master Database (MDB) Study	C/CPFF	Various	0	2011	3Q	0		0		0	2011	2011						
Master Database (MDB) & Facilities	C/CPFF	TBS	0	0		9514	2Q	6801	1Q	Continue	Continue	Continue						
Subto	tal:	<u> </u>	0	5964		18827		20341		Continue	Continue	Continue						
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	1	Cost	Target Value of Contract						
II. Support Costs												0						
Engineering Services & Technical	C/FFP/T&M	Morgan Research	0	172	2Q	367	1Q	383	1Q	Continue	Continue	Continue						
Support		Corporation, Orlando, FL																
Subto	tal:		0	172		367		383		Continue	Continue	Continue						
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete		Target Value of Contract						
Subto	tal:		0															
						1					<u>"</u>							
Remarks: Not Applicable																		

0604780A (582) SYNTHETIC ENVIR CORE Item No. 107 Page 17 of 25 601

Exhibit R-3 ARMY RDT&E COST ANALYSIS

ARMY RI	T&E CO	ST ANALYSIS	S (R3)						February 2006				
SUDGET ACTIVITY  5 - System Developm	ent and Demo	onstration	PE NUMBER <b>0604780A</b>			ARMS T	TACTIC:	AL TRA	INER (	CATT)	PROJEC <b>582</b>	СТ	
roject Office Support	MIPR	PEO STRI/NAVAIR Orlando	0	1660	1-4Q	1703	1-4Q	1774	1-4Q	Continue	Continue	Continu	
	Subtotal:		0	1660		1703		1774		Continue	Continue	Contin	
Project T	otal Cost:		0	7796		20897		22498		Continue	Continue	Continu	
J					L		L						

Schedule Profile (R4 Exhib	it)											February 20	006
BUDGET ACTIVITY  5 - System Development and Demonstration					ER AND TITLE A - COMB		ED ARMS	TRA	AINER (		PROJECT		
Event Name			Y 05		FY 06		FY 07		Y 08	<del>                                     </del>	FY 09	FY 10	FY 11
(1) SE CORE Program Approval		1 2	00 100 100 100000 100 100 10	obsobodko	1 2 3 4 ne A/B	1	2 3 4	1 2	3 4	1	2 3 4	1 2 3 4	1 2 3
					K 11/D								
Architecture and Integration						7							
Master Database (MDB) & Facilities													
	00 B 00 B 00 B												
	00 B 00 B 00 B												
	88 8 88 8 88 8												

## Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604780A - COMBI

PROJECT

**582** 

pment and Demonstration 0604780A - COMBINED ARMS TACTICAL TRAINER (CATT)

Schedule Detail	<u>FY 2005</u>	<u>FY 2006</u>	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Architecture and Integration Award	3Q	1Q	1Q	1Q	1Q		
Architecture and Integration Spiral Deliveries		3-4Q	4Q	4Q	4Q		
MDB & Facilities Study Award	3Q						
MDB & Facilities Study Delivery		2Q					
MDB & Facilities Award		2Q	1Q	1Q	1Q	1Q	1Q
MDB & Facilities Spiral Deliveries			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

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February 2006

BUDGET ACTIVITY
PE NUMBER AND TITLE
PROJECT
0604780A - COMBINED ARMS TACTICAL TRAINER (CATT)
585

•	•							`	,	
•		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total Cost
	COST (In Thousands)	Estimate	Complete							
585	AVIATION COMBINED ARMS TACTICAL TRAINER	3161	13332	11666	13187	1534	1535	1520	0	45935

A. Mission Description and Budget Item Justification: This project supports the Aviation Combined Arms Tactical Trainer (AVCATT) which is an Army aviation 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. In the future the Armed Reconnaissance Helicopter platform and an enhanced software engineering environment (SEE) 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. AVCATT fully supports Army modularity. 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 (SE) Core capabilities. Other required elements that are present on the modern, high intensity battlefield, such as the combat support and combat service support 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 current and future combat operations including GWOT. AVCATT supports the Aviation Transformation Plan and the Aviation Combined Arms Training Strategy. AVCATT also Supports Aviation Functional Area Assessment (FAA), providing collective, combined arms training. This system is designated a complementary program for the Future Combat System (FCS).

FY2007 funding will develop Engineering Change Proposals (ECPs) for refinements to the system to include but not limited to: Classified Operations, Objective OneSAF and Mission Rehearsal/Enhanced Image Generator (IG) capabilities. Funding will also support interoperability with other combined arms simulators, life cycle baseline enhancements to the AVCATT infrastructure and technical obsolescence.

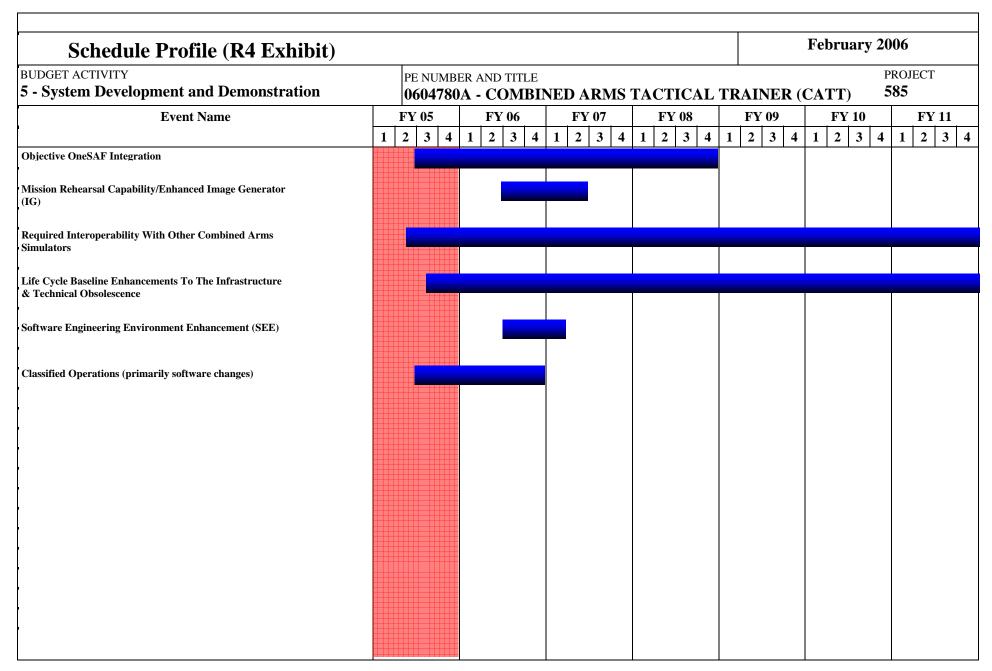
Accomplishments/Planned Program	FY 2005	FY 2006	<u>FY 2007</u>
FY05-FY07: Provides ECPs for refinements to the system to include: Classified Operations, Objective OneSAF and Mission Rehearsal capabilities. Funding will also support interoperability with other combined arms simulators through implementation of Synthetic Environment (SE) Core common products, life cycle baseline enhancements to the AVCATT infrastructure and technical obsolescence. FY06 Congressional funding supports an AVCATT software engineering environment (SEE) enhancement.	3008	13176	11504
FY05-FY07: Provides government program management, engineering, technical, contract, and test support for AVCATT refinements.	153	156	162
Total	3161	13332	11666

3. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
DPA3, Appropriation NA0173 Aviation Combined Arms Factical Trainer	51949	70342	80555	73086	29021	16172	16536	CONT	CONT

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)				
BUDGET ACTIVITY  5 - System Development and Demonstration	PE NUMBER AND TITLE 0604780A - COMBINED ARMS TACTICAL TRAIN	PROJECT 585		
C. Acquisition Strategy System Development and Demonstration	on (SDD) competitive contract against performance specification.			

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ARMY RDT&E COST ANALYSIS (R3)										February 2006			
BUDGET ACTIVITY  5 - System Development	and Demons	tration	PE NUMBE <b>0604780</b>			ARMS T	ГАСТІС	AL TRA	AINER (	PROJEC <b>585</b>			
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac	
AVCATT	C/CPAF/FPIF/ FFP	L3 Communications Corporation, Arlington, Texas	0	3008	2Q	13176	2Q	11504	1Q	Continue	Continue	Continue	
Subt	otal:		0	3008		13176		11504		Continue	Continue	Continue	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac	
Subtotal:			0										
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Value of	
	Method & Type				Award		Award		Award			Value of	
III. Test And Evaluation	Method & Type		PYs Cost		Award		Award		Award			Value of	
III. Test And Evaluation	Method & Type		PYs Cost		Award		Award		Award	Complete  Cost To		Value of Contract  Target Value of	
III. Test And Evaluation Subt	Method & Type otal:  Contract Method &	Location  Performing Activity &	PYs Cost 0	Cost FY 2005	Award Date FY 2005 Award	Cost FY 2006	Award Date  FY 2006 Award	Cost FY 2007	Award Date FY 2007 Award	Complete  Cost To	Cost	Value of Contract  Target Value of Contract	
III. Test And Evaluation  Subt	Method & Type otal:  Contract Method & Type	Performing Activity & Location  PEO STRI, Orlando,	PYs Cost  O  Total PYs Cost	Cost FY 2005 Cost	Award Date FY 2005 Award Date	Cost FY 2006 Cost	Award Date  FY 2006 Award Date	Cost FY 2007 Cost	Award Date  FY 2007 Award Date	Cost To Complete	Cost Total Cost	Targe Value of Contract  Contract  Continue	
III. Test And Evaluation  Subt  IV. Management Services  Project Office Support	Method & Type otal:  Contract Method & Type	Performing Activity & Location  PEO STRI, Orlando,	PYs Cost  O  Total PYs Cost  O	FY 2005 Cost	Award Date FY 2005 Award Date	FY 2006 Cost	Award Date  FY 2006 Award Date	FY 2007 Cost	Award Date  FY 2007 Award Date	Cost To Complete Continue	Total Cost	Target Value of Contract  Target Value of Contract Continue	



## Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

5 - System Development and Demonstration

0604780A - COMBINED ARMS TACTICAL TRAINER (CATT)

585	

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Objective OneSAF Integration (Award)	2Q	2Q	1Q	1Q			
Mission Rehearsal Capability/Enhanced Image Generator (IG) (Award)		2Q	1Q				
Required Interoperability with other combined arms simulators (Award)	2Q	3Q	1Q	1Q	1Q	1Q	1Q
Life cycle baseline enhancements to the AVCATT infrastructure and technical obsolescence (Award)	2-3Q	2Q	1Q	1Q	1Q	1Q	1Q
Software Engineering Environment Enhancement (SEE) (Award)		2Q					
Classified Operations (primarily software changes) (Award)	2Q	3Q					