

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604760A - Distributive Interactive Simulations (DIS) - Engin

COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	18087	25789	26985	25860	24302	25427	22492	Continuing	Continuing
C69 REPRESENTATION OF SPACE CAPABILITIES	0	0	496	496	495	495	495	Continuing	Continuing
C73 SYNTHETIC THEATER OF WAR	1803	1331	1536	1045	1164	1069	1096	Continuing	Continuing
C74 DEVEL SIMULATION TECH	182	3214	5382	4983	5043	5138	5220	Continuing	Continuing
C77 INTERACTIVE SIMULATION	0	0	0	1136	228	1138	1117	Continuing	Continuing
C78 ONE SEMI-AUTOMATED FORCES (ONESAF)	16102	21244	19571	18200	17372	17587	14564	Continuing	Continuing

A. Mission Description and Budget Item Justification: This program element supports the Army's Advanced Simulation Program which enables operational readiness and supports the development of concepts and systems for Stryker and Future Force through the application of new simulation technology and techniques. This development and application of simulation technology will provide the tools to electronically link all subcomponents together in a manner that is transparent to the user. The synthetic environment is used to verify the scenarios, tactics/techniques and procedures, train testers on new hardware/software and conduct trial test runs before costly live field tests. The tools developed are available for reuse by developers and users of simulations throughout the Army. Project C69, Army Space Modeling and Simulation, provides Modeling and Simulation (M&S) capabilities to represent an integrated operational space environment for Transformation Experimentation, Future Force design, and Army Service Component Command mission area responsibilities. Project C73, Synthetic Theater of War-Army (STOW-A), provides innovative applications of current systems (live, virtual and constructive, Command, Control, Communications, Computers and Integration (C4I) Surveillance and Reconnaissance) to meet the urgent training requirements until availability of the next generation systems. STOW-A provides direct support to the Training, Exercises and Military Operations (TEMO) domain and the Advanced Concepts Requirements (ACR) domain. TEMO support derives from the demonstrated, low cost training capabilities that are provided by the toolkit. ACR support derives from the demonstrated capability of the kit to support battle lab and Army Warfighting Experiments (AWE) exercises and the development of Tactics, Techniques and Procedures (TTP) to support digital operations. Project C74 provides the resources necessary to perform the formally chartered mission of the Army's Simulation to C4ISR Interoperability Overarching Integrated Product Team (SIMCI OIPT). Project C77, Interactive Simulation, focuses on development of advanced simulation technology and tools to provide a reusable synthetic environment. This program will benefit the Army and DOD by providing standards for interoperability and software. The project also develops and enhances reconfigurable simulators which are used as Advanced Concepts Research Tools (ACRT) that will allow the battlelabs to accomplish their mission in support of the ACR, Research, Development and Acquisition (RDA), and TEMO domains. Project C78 develops the One Semi-Automated Forces (OneSAF) program that will combine and improve the functionality and improve behaviors of several current semi-automated forces to provide a single SAF for Army use in simulations.

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The FY05, Army Space Modeling and Simulation, C69 project line will initiate the first phases of the Space Focused Area Collaborative Team (FACT)"roadmap/action plan." Activities include developing a set of algorithms for integration into evolving models for users such as the Army Warfare Simulation (AWARS), One Semi Automated Force (OneSAF), and Combat XXI.

The FY05 STOW-A, C73 project line will continue the development of the software to link entity-based simulations and simulators to live tactical command and control systems and incorporate live simulations through the instrumented operating systems at the Combat Training Centers (CTCs). The FY05, Developmental Simulation Technology, C74 Project line provides for Simulation-to-C4I interoperability (SIMCI) effort between the models and simulations and tactical C4I Systems. The FY05 Computer Generated Forces, C78 Project funding will continue development of the software to provide OneSAF initial operational capability functionality for Army evaluation and test.

This program line supports the Current, Stryker and Future transition paths of the Transformation Campaign Plan (TCP).

<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	18128	26358	20567
Current Budget (FY 2005 PB)	18087	25789	26985
Total Adjustments	-41	-569	6418
Congressional program reductions		-2244	
Congressional rescissions			
Congressional increases		1700	
Reprogrammings	-41	-25	
SBIR/STTR Transfer			
Adjustments to Budget Years			6418

FY04 Congressional reduction to PE for \$2.0M due to growth; Congressional plus-up to PE for \$1.7M for Commander's Rock Drill

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FY05 funding increases support Project C78, OneSAF.		

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							February 2004			
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin			PROJECT C69			
COST (In Thousands)		FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
C69	REPRESENTATION OF SPACE CAPABILITIES	0	0	496	496	495	495	495	Continuing	Continuing
<p><u>A. Mission Description and Budget Item Justification:</u> Provides Modeling and Simulation (M&S) capabilities to represent an integrated operational space environment for Transformation Experimentation, Future Force design, and Army Service Component Command (ASCC) mission area responsibilities. The Army lacks space representations in its current M&S suite and capabilities for analysis and training are limited. Current tools cannot address space-based Intelligence Surveillance and Reconnaissance (ISR), communications, early warning, blue force tracking, information operations, and weather forecasting. This shortfall in M&S prevents space-based capabilities from being fully integrated into evaluations of Future Force doctrine, concepts, requirements, and training. Additionally the current force is limited in developing concepts and conducting mission assessments. This system supports the Current to Future transition path of the Transformation Campaign Plan (TCP).</p>										
<u>Accomplishments/Planned Program</u>							FY 2003	FY 2004	FY 2005	
Planned activities include initiation of the first phases of the Space Focused Area Collaborative Team (FACT) "roadmap/action plan." The Army FACT is an Army-wide multi-discipline team comprised of M&S experts that research, identify, and coordinate simulation technology requirements. Planned activities include developing a set of algorithms for integration into evolving models for users such as the Army Warfare Simulation (AWARS), One Semi Automated Force (OneSAF), and Combat XXI.							0	0	496	
Totals							0	0	496	
<p><u>B. Other Program Funding Summary:</u> Not applicable for this item.</p>										
<p><u>C. Acquisition Strategy:</u> Not applicable for this item.</p>										

ARMY RDT&E COST ANALYSIS(R3)									February 2004				
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
5 - System Development and Demonstration					0604760A - Distributive Interactive Simulations (DIS) - Engin					C69			
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
			0	0		0		0		0	0	0	
Subtotal:													
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . ASCC Space M&S Execution	CPAF/CPF F	Various, AL, FL, CA, KA, NM	0	0		0		450		0	450	0	
b . Govt Support	MIPR/Allotment	AL	0	0		0		46		0	46	0	
Subtotal:			0	0		0		496		0	496	0	

ARMY RDT&E COST ANALYSIS(R3)									February 2004				
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
5 - System Development and Demonstration					0604760A - Distributive Interactive Simulations (DIS) - Engin					C69			
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
			0	0		0		0		0	0	0	
Subtotal:													
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
			0	0		0		0		0	0	0	
Subtotal:													
Project Total Cost:			0	0		0		496		0	496	0	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

**0604760A - Distributive Interactive Simulations
(DIS) - Engin**

PROJECT

C73

COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
C73 SYNTHETIC THEATER OF WAR	1803	1331	1536	1045	1164	1069	1096	Continuing	Continuing

A. Mission Description and Budget Item Justification: This program supports development and integration activities for the Synthetic Theater Of War-Army (STOW-A) Digital Sustainment Training (DST) software baseline that includes integration of fielded simulations and simulators with C4ISR systems. The development and integration to be accomplished will result in the capability to provide a seamless synthetic environment which will support digital training, test and mission rehearsal requirements. Specific efforts will include integration of a ground maneuver simulation into the Fire Support Simulation Tools (FSST) architecture and enhancement of the extant intelligence capability of FSST. Additionally, better representation and fidelity of other battlefield operating systems functionality will be gained. Development focuses on leveraging existing and emerging technology in a manner that produces substantial and continual improvements in combat readiness through the use of full spectrum, high fidelity, distributed simulation capability to support a large scale user-based exercise/experiment for JOINT VENTURE training and analytical needs. The Digital Battlefield Sustainment Trainer (DBST) program is a strategic agility program designed to meet the Operational Needs and other critical initiatives from the field. It will do this through the application of available current and emerging technologies. This project develops innovative applications of current systems (live, virtual, constructive, C4ISR) to meet urgent needs across the domains (e.g., training shortfalls) until the next-generation systems are available. The FY05 funding will continue development of software and hardware interfaces to provide the required digital training capability to the field, helping to overcome unique digital training challenges that currently exist in the U.S. Army at the brigade level. This project supports the Current/Future transition path of the Transformation Campaign Plan (TCP). DBST is part of the Army Constructive Training Federation (ACTF).

Accomplishments/Planned Program	FY 2003	FY 2004	FY 2005
Develop integration software to link simulation with tactical command and control systems in support of Constructive Simulation. (Software Blocking)	564	587	365
Develop software to support Joint Venture and Joint Contingency Force Simulation - Simulation Integration.	294	0	293
Verification and validation of software integration to include DOD Information Technology Security Certification and Accreditation Process (DITSCAP).	260	347	140
Design, develop and install system linkages between live simulations through the instrumented operating systems at the Homesteads	685	0	0
Integration of Tactical Simulation Interface Unit in support of Army Constructive Training Federation	0	361	738
Small Business Innovative Research/Small Business Technology Transfer Programs	0	36	0

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BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin				PROJECT C73	
<u>Accomplishments/Planned Program (continued)</u>								FY 2003	FY 2004
Totals								1803	1331
<u>B. Other Program Funding Summary</u>		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl
OMA, 121014		1130	2889	2919	2733	2999	3385	3573	Continuing
<p><u>C. Acquisition Strategy:</u> Development is accomplished through delivery orders to competitively selected contractors based on performance specifications via PEO STRI Ominbus Contract (STOC) and General Services Administration (GSA) contracts.</p>									

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin					PROJECT C73		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Enhanced Tactical Simulation Interface Unit(ETSIU)/Enhanced Protocol Interface Unit(EPIU) Interface	C/CPFF	AEGIS, Orlando, FL	2603	276	1-2Q	299	1-2Q	256	1-2Q	Continue	3434	Continue
b . STOW-A/DBST Software Development	Various	Multiple	6487	226	1Q	213	1-2Q	196	1-2Q	Continue	Continue	Continue
c . Architecture Development	C/CPIF	Multiple	511	247	1Q	180	1-2Q	177	1-2Q	Continue	Continue	Continue
Subtotal:			9601	749		692		629		Continue	Continue	Continue
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Engr & Technical Support	Various	Multiple	1744	321	1Q	118	1Q	207	1Q	Continue	Continue	Continue
Subtotal:			1744	321		118		207		Continue	Continue	Continue

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BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . DBST Integration, Evaluation and Test	C/CPFF	Multiple	1164	353	1-3Q	250	1-3Q	394	1-3Q	Continue	Continue	Continue	
Subtotal:			1164	353		250		394		Continue	Continue	Continue	
Remarks: Required for evaluation of annual version release. There are system tasks that are performed as part of the annual version release.													
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . Program Management	Various	Multiple	2825	380	1-4Q	271	1-4Q	306	1-4Q	Continue	Continue	Continue	
Subtotal:			2825	380		271		306		Continue	Continue	Continue	
Project Total Cost:			15334	1803		1331		1536		Continue	Continue	Continue	

Schedule Profile (R4 Exhibit)																	February 2004																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Schedule Detail (R4a Exhibit)									
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February 2004

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0604760A - Distributive Interactive Simulations (DIS) - Engin	C73

C73

**0604760A - Distributive Interactive Simulations (DIS)
- Engin**

C73

- Engin

<u>Schedule Detail</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Award Engineering & Technical Support	1-2Q	1-2Q	1-2Q	1-2Q	1-2Q	1-2Q	1-2Q
Annual SW Version Release	3Q	3Q	3Q	3Q	3Q	3Q	3Q

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COST (In Thousands)				FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
C74 DEVEL SIMULATION TECH				182	3214	5382	4983	5043	5138	5220	Continuing	Continuing
<p><u>A. Mission Description and Budget Item Justification:</u> The funding in this project line will support the mission of Simulation to C4I Interoperability (SIMCI) in a components based architectures approach. This effort will yield improved interoperability between model and simulation (M&S) and C4I systems, as well as M&S and Army platforms. This provides Future Force capability while reducing the cost and burden associated with the production and maintenance of traditional interfaces and simulation/stimulation interfaces to tactical training devices. The mission is to enable Modeling and Simulation to support Future Combat System (FCS) development and Milestone C, Army Architectures Integration Cell (AAIC) requirements, and provide adequate resources to support Software Blocking.</p> <p>Interoperability is the ability of systems, units, or forces to provide data, information, materiel, and services to and accept the same from other systems, units, or forces, and to use the data, information, materiel, and services that are exchanged to enable them to operate effectively together. To achieve interoperability in the Army's System of Systems approach toward Army Transformation, components based architectures are critical in successfully integrating current and future M&S and tactical systems.</p> <p>SIMCI's requirement is to tie interoperability and top level warfighter tasks to the Future Force to enable the soldier to train while at the institution, at homestation, at the Combat Training Centers, or at a deployed location with a fully integrated and interoperable training environment. To do this requires the development and distribution of SIMCI solutions for design and utilization of common components for the Army future Battle Command and the various applicable systems and platforms that are essential for Army Transformation.</p>												

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Accomplishments/Planned Program		FY 2003	FY 2004	FY 2005
Provide Army level synchronization of SIMCI-related and software blocking related initiatives (development, configuration, management, certification, and distribution).Developed an M&S data model to align the Army's integrated core data model. Provided recommendations on DA level policy to improve interoperability between M&S and tactical C4I systems. Managed the SIMCI efforts between the M&S and tactical C4I systems. Provided ABCS Software License management to all SIMCI related programs. Provided architectural support and effective liaison to PM Future Combat Systems (FCS), Defense Modeling and Simulation Office (DMSO), Defense Information Systems Agency (DISA) and other Services. Collaborated on the stand up of a fully enabled and feature rich SIMCI Requirements Synchronization & Assessment Enterprise Tool Set (RS&A ETS). Develop and manage the Simulation-to-C4I interoperability (SIMCI) initiatives between the models and simulations (M&S) and tactical C4I Systems in a components based architectures approach. Develop C4I support plans to align the Army's operational, systems, and technical architectures to define and enable interoperable solutions between the M&S and the C4I community.		182	267	328
Manage the SIMCI efforts between the M&S and tactical C4I systems (3 WYs FY 04). Provide support of the SIMCI Overarching Integrated Product Team's (OIPT) approach to interoperability which includes architecture alignment, data model alignment, promotion of common standards & the development, baseline control & distribution of common interoperability. Objectives are: to develop components for existing C4ISR simulation systems; conduct experimentation and standardization with Battle Management Language (BML) Prototype; develop specification for a standard interface to facilitate interoperability between communications effects simulations and C4I systems; develop a SIMCI Component Architecture to provide seamless interoperability between Army Battle Command and Army M&S components; further develop and increase user awareness of the Requirements Synchronization and Assessment Enterprise Tool Set (RS&A ETS); and align all initiatives with the Army's Software Blocking Policy.		0	2862	5054
Small Business Innovative Research/Small Business Technology Transfer Programs		0	85	0
Totals		182	3214	5382
B. Other Program Funding Summary: Not applicable for this item.				

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)		February 2004
BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin	PROJECT C74
<p>C. Acquisition Strategy: SIMCI OIPT resources are allocated to multiple organizations and contracts to procure and execute approved functions and projects to support the SIMCI and components based architecture alignment efforts.</p>		

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin					PROJECT C74		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . C4I Interoperability - Tng in the System of Systems Architecture (TSOSA)	C/CPAF	MITRE, CECOM, Ft Monmouth, NJ	230	0		0	1-3Q	660	1-3Q	Continue	Continue	0
b . C4I Interoperability - Digital Integration Lab (DIL)	T&M	COLSA Corporation, Huntsville, AL	486	0		45	1-3Q	2716	1-3Q	Continue	Continue	0
Subtotal:			716	0		45		3376		Continue	Continue	0
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Facility Support for Digital Integration Lab (DIL)	In-House	PEO STRI (formerly STRICOM), Orlando, FL	60	0		0		500		0	560	0
Subtotal:			60	0		0		500		0	560	0

ARMY RDT&E COST ANALYSIS(R3)									February 2004				
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
5 - System Development and Demonstration					0604760A - Distributive Interactive Simulations (DIS) - Engin					C74			
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
			0	0		0		0		0	0	0	
Subtotal:													
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . Program Management	Multiple	Various	1790	182	1-4Q	3169	1-4Q	1506	1-4Q	Continue	Continue	0	
Subtotal:			1790	182		3169		1506		Continue	Continue	0	
Project Total Cost:			2566	182		3214		5382		Continue	Continue	0	

Schedule Profile (R4 Exhibit)																				February 2004												
BUDGET ACTIVITY 5 - System Development and Demonstration												PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin																PROJECT C74				
Event Name	FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09				FY 10			
	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				
Deliverable (Reusable Common Components)																																
Deliverable - SIMCI OIPT Process																																
Deliverable - SIMCI Data Representation Tasks																																
Deliverable - SIMCI Standardization Tasks																																

Schedule Detail (R4a Exhibit)						February 2004	
BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin				PROJECT C74
<u>Schedule Detail</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Auto Generation of Selected Data for Army Constructive Training		4Q					
Enhanced Authoritative Database to Initialize Battle Command and M&S		4Q					
Requirements Synchronization Tool Population		4Q					
Coordinate Army Organization to Develop Simulation Services into FCS C4I					4Q		
Prototype Unit Order of Battle Data Interchange Format for Embedded Simulation			4Q				
Standardize Battle Management Language							4Q
Standardize a Common Scenario Generation Methodology				4Q			

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							February 2004					
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin			PROJECT C78					
COST (In Thousands)				FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
C78 ONE SEMI-AUTOMATED FORCES (ONESAF)				16102	21244	19571	18200	17372	17587	14564	Continuing	Continuing
<p>A. Mission Description and Budget Item Justification: This project develops and delivers software systems to realistically represent activities of units and forces in simulation. This representation is used to support the concept evaluation, experimentation, materiel acquisition and training communities. Initiatives include the systems engineering and design for development and evolution of the architecture and software tools for a universal Army computer generated forces system, One Semi-Automated Forces (OneSAF). OneSAF is a next generation higher fidelity Brigade and below SAF that will represent a full range of operations, systems and control processes in support of stand alone and embedded training and research, development and acquisition simulation applications. OneSAF will be fully interoperable with the Army's emerging virtual, live and division and above constructive simulations and will provide next generation simulation products. OneSAF will replace a variety of current simulations currently used within the Army to support analytic and training simulation activities. This project is a component of the Army Constructive Training Federation (ACTF).</p> <p>The FY05 program will continue the development of the software required to provide OneSAF initial operational capability for Army evaluation and test.</p> <p>This project supports the Stryker and Future transition paths of the Transformation Campaign Plan (TCP).</p>												
Accomplishments/Planned Program									FY 2003	FY 2004	FY 2005	
Develop functionality to provide architectural services, components, synthetic environment and infrastructure capable of supporting initial model development.									6907	6267	5420	
Develop life cycle applications and infrastructure enhancements for OneSAF IOC Version 1.0.									990	994	962	
Develop functionality to represent behaviors, physical models, and communication models for OneSAF.									7204	10422	11933	
Verification & Validation of newly developed and integrated software.									1001	1369	1256	
Commander's Rock Drill									0	1600	0	
SBIR/STTR									0	592	0	
Totals									16102	21244	19571	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							February 2004		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin				PROJECT C78	
<u>B. Other Program Funding Summary</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
OMA, 121014	2025	1900	2025	2387	2538	3062	6160	Continuing	Continuing
<p>OMA funding provides for OneSAF life cycle software maintenance of existing software.</p> <p><u>C. Acquisition Strategy:</u>Development based on performance specifications via multiple Task Orders on competitively selected contracts.</p>									

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin					PROJECT C78		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Architecture Dev & System Integration	CPFF	Science Applications International Corp, Orlando, FL	11651	8233	1-3Q	9978	1Q	8409	1-2Q	Continue	38271	Continue
b . Integrated Environment Dev	CPFF	Advanced Systems Technology, Inc., Orlando FL	3537	350	1-3Q	1024	1Q	1030	1-2Q	Continue	Continue	Continue
c . Synthetic Environment Dev	CPFF	Science Applications International Corp, Orlando, FL	1960	1018	1-3Q	1039	1-2Q	1577	1-2Q	Continue	Continue	Continue
d . Knowledge Acquisition/Knowledge Engineering	CPFF	Aegis Technologies Group, Huntsville, AL	2025	867	1-3Q	927	1-2Q	1273	1-2Q	Continue	Continue	Continue
e . OneSAF System Development	CPFF	Various	3247	1076	1-3Q	1062	1-2Q	1734	1-2Q	Continue	Continue	Continue
f . Model Development	CPFF	Acusoft/Various	6702	2001	1-2Q	1764	1Q	1807	1-2Q	Continue	Continue	Continue
g . Commander's Rock Drill	CPFF	To be determined	0	0		1600	3Q	0		0	1600	0
Subtotal:			29122	13545		17394		15830		Continue	Continue	Continue
Remarks: Each contract award is a Delivery Order on a competitively selected contract.												

ARMY RDT&E COST ANALYSIS(R3)

February 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

**0604760A - Distributive Interactive Simulations (DIS)
- Engin**

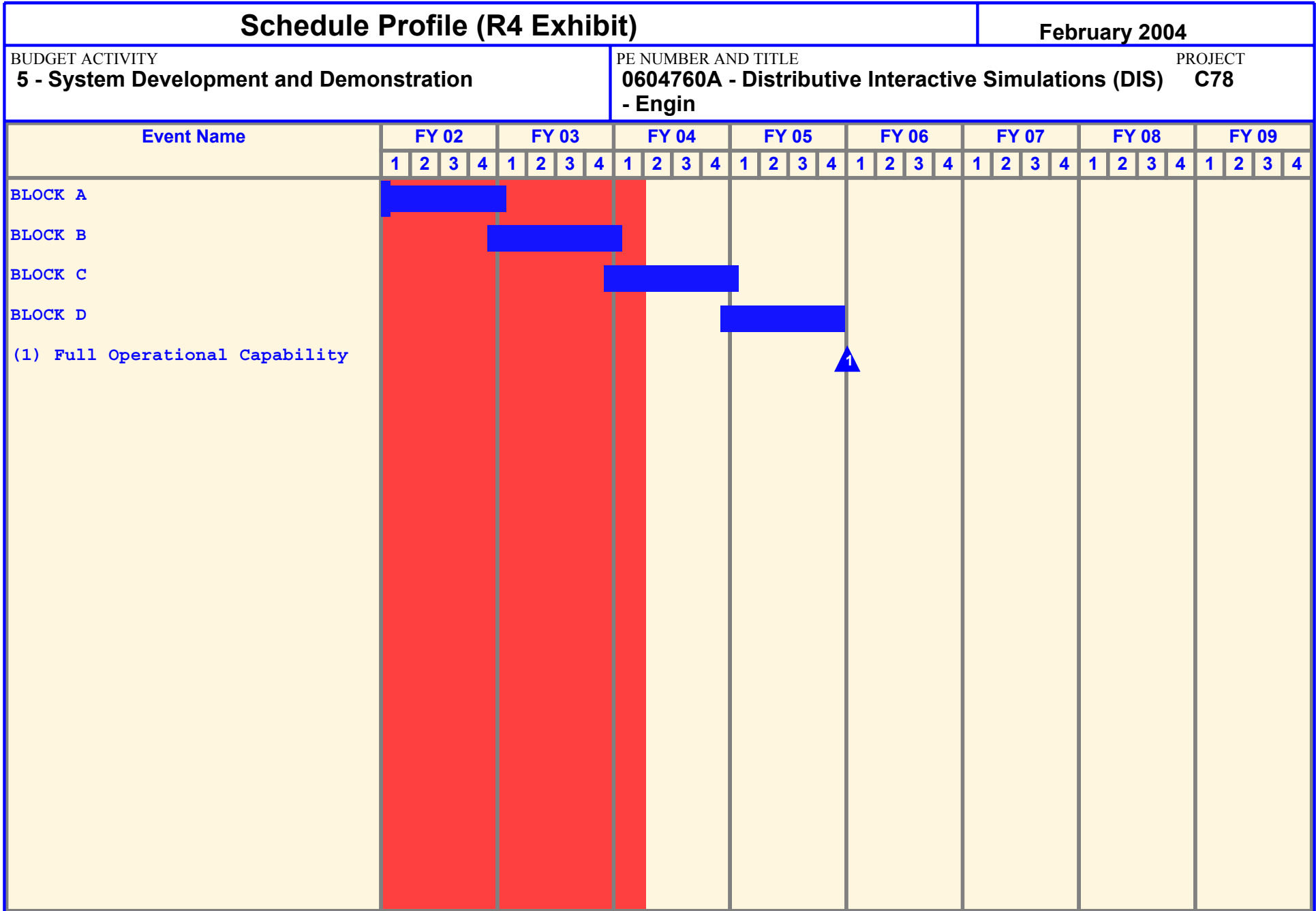
PROJECT

C78

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . System Analysis	Various	Multiple	1720	507	1Q	550	1Q	540	1-2Q	Continue	Continue	Continue
b . Domain Analysis	Various	Multiple	1430	527	1Q	630	1Q	571	1-2Q	Continue	Continue	Continue
c . Architecture Engr & Tech Spt	C/CPFF	MITRE FFRDC	1177	243	1Q	256	1Q	255	1-2Q	Continue	Continue	Continue
Subtotal:			4327	1277		1436		1366		Continue	Continue	Continue

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . OneSAF integration, evaluation and test	C/CPAF	TBD	407	240	2Q	403	1-3Q	487	1-3Q	Continue	Continue	Continue
b . OneSAF Verification, Validation & Accreditation	Various	Multiple	389	347	1-3Q	682	1-3Q	698	1-3Q	Continue	Continue	Continue
Subtotal:			796	587		1085		1185		Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS(R3)									February 2004				
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
5 - System Development and Demonstration					0604760A - Distributive Interactive Simulations (DIS) - Engin					C78			
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . Program management	Various	Multiple	2853	693	1-4Q	1329	1-4Q	1190	1-4Q	Continue	6065	Continue	
Subtotal:			2853	693		1329		1190		Continue	6065	Continue	
Project Total Cost:			37098	16102		21244		19571		Continue	Continue	Continue	



Schedule Detail (R4a Exhibit)						February 2004	
BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604760A - Distributive Interactive Simulations (DIS) - Engin				PROJECT C78
<u>Schedule Detail</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Award OneSAF Development Task Orders for individual components to meet block requirement	1Q	1Q	1Q	1Q	1Q	1Q	1Q
Deliver Block A	1Q						
Milestone B	3Q						
Deliver Block B		1Q					
Deliver Block C			1Q				
Deliver Block D			4Q				
OneSAF FOC (Version 1.0)				1Q			