

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2007

BUDGET ACTIVITY		PE NUMBER AND TITLE								
5 - System Development and Demonstration		0604818A - Army Tactical Command & Control Hardware & Softwar								
COST (In Thousands)	FY 2006 Actual	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	77381	59901	99202	65082	69611	62809	65148	66176	Continuing	Continuing
323 COMMON HARDWARE SYSTEMS	4283	6678	7008	7339	7525	7826	8000	8000	Continuing	Continuing
334 COMMON SOFTWARE	14270	11632	21145	23967	24276	25236	27640	27644		175810
C15 MOUNTED BATTLE COMMAND ON-THE-MOVE (MBCOTM)	9507	9987	22020	11904	8383	1000				62801
C29 CENTRALIZED TECHNICAL SUPPORT FACILITY (CTSF)	15207	10115	20548	10221	9876	8780	8743	8936		92426
C34 ARMY TAC C2 SYS ENG	14445	11402	12009	11651	19551	19967	20765	21596		131386
C39 Tactical Operations Centers (TOCs)	5301									15651
C3A ARMY AIRBORNE COMMAND & CONTROL SYS (A2C2S)	7168	10087								17255
JN1 JOINT NETWORK NODE (JNN) TESTING	7200		16472							23672

A. Mission Description and Budget Item Justification: The umbrella program to exploit automation technology for the conduct of combat operations is the Army Tactical Command and Control System (ATCCS) program which is a component of the Army Battle Command System (ABCS). The ATCCS program provides automation in the five battlefield functional areas (BFAs) with the following specific systems: (1) Maneuver Control System (MCS); (2) Effects and Fires Command and Control Systems (EFCCS); (3) All Source Analysis System (ASAS) for Intelligence/Electronic Warfare; (4) Forward Area Air Defense Command, Control and Intelligence System (FAADC2I); and (5) Battle Command Sustainment Support System (BCS3). To provide an overall technically sound, cost effective, and operationally responsive approach, the design and development of ATCCS must be accomplished on a total systems basis. The ATCCS Engineering Program, more commonly known as Systems Engineering and Integration (SE&I), provides the required overall systems engineering to assure integrated Army tactical command and control and the utilization of common hardware and software throughout the five ATCCS nodal systems. This program element also includes the Central Technical Support Facility (CTSF) which provides a single technical "center of mass" for software checkout and physical system integration. The Common Hardware and Software projects provide common products to customers to meet their developmental and fielding needs. The Tactical Operations Centers (TOCs) project designs and develops the TOCs that form the structural backbone of the Army's digitized fielding concept. Starting in FY04 this program includes funding for the SICPS program which was previously funded in project C12 in FY03. The Army Airborne Command & Control (A2C2S) provides the avionics system required to horizontally and vertically integrate the battlefield. These systems support the Legacy to Objective transition path.

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5 - System Development and Demonstration	0604818A - Army Tactical Command & Control Hardware & Softwar			
<u>B. Program Change Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2007)	66026	69172	60826	52587
Current BES/President's Budget (FY 2008/2009)	77381	59901	99202	65082
Total Adjustments	11355	-9271	38376	12495
Congressional Program Reductions		-8829		
Congressional Rescissions	-665			
Congressional Increases	-289			
Reprogrammings	12309	-442		
SBIR/STTR Transfer				
Adjustments to Budget Years			38376	12495
FY07 Summary: Congressional Reprogrammings: SE&I: + \$2.4M for C34 Cross Domain Strategic and Operational Solution TOCS: - \$4.5M for Program Reductions-Redundancies with DJC2 MBCOTM: - \$6.5M for Mounted battle Command on the Move				

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar							PROJECT 323		
COST (In Thousands)	FY 2006 Actual	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
323 COMMON HARDWARE SYSTEMS	4283	6678	7008	7339	7525	7826	8000	8000	Continuing	Continuing

A. Mission Description and Budget Item Justification: CHS provides state of the art, fully qualified, interoperable, compatible, deployable and survivable hardware and COTS software for Command, Control and Communications at all echelons of command for the United States Army and other DoD services with worldwide repair, maintenance and logistics support through contractor-operated CHS Repair Centers (CRCs) and management of a comprehensive warranty program. In FY08-FY09, CHS continues to manage the acquisition and delivery of CHS equipment, Technology Insertion and Common Standardized Testing in support of customer requirements.

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Continue management of the acquisition and delivery of CHS equipment in support of customer requirements	3483	5615	6133	6464
Continue supporting customers testing efforts with CHS equipment	300	300	300	300
Continue CHS technology insertion	500	575	575	575
Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)		188		
Total	4283	6678	7008	7339

B. Other Program Funding Summary Not applicable for this item.

C. Acquisition Strategy The overall goal is to improve interoperability and compatibility and lower life cycle costs by standardizing battlefield command and control (C2) automation through centralized buys of non-developmental items (NDI), standardized protocols and reusable commercial common software. This project provides a coherent migration strategy for ABCS systems through the use of technology insertion.

CHS also conducts common environmental and developmental testing of hardware items thereby reducing the testing requirements for individual BFAs. A firm fixed price, full and open competition contract, was awarded to GDC4S in May 2003, for ruggedization and production.

ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Softwar									323		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
GDC4S/CHS-3 Non-Recurring Engineering	C/FFP/IDIQ	Taunton, MA	12000									12000	Cont.	
Technology Insertion	Various	Various	12185	500	1-3Q	575	1-3Q	575	1-3Q	575	1-3Q	Cont.	Cont.	
Product Development	Various	Fort Monmouth, NJ	66343	572	1-3Q	2457	1-3Q	2704	1-3Q	2820	1-3Q	Cont.	Cont.	
Support Costs	MIPR	Fort Monmouth, NJ/Huntsville, AL	51636	2911	1-3Q	3158	1-3Q	3429	1-3Q	3644	1-3Q	Cont.	Cont.	
SBIR/STTR						188	1Q							188
Subtotal:			142164	3983		6378		6708		7039		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Not applicable														
Subtotal:														
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
CHS Test Activities	MIPR	Other Government Activities	1200	300	3Q	300	3Q	300	1-3Q	300	1-3Q	Cont.	Cont.	
Subtotal:			1200	300		300		300		300		Cont.	Cont.	

ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar									PROJECT 323		
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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:														
Project Total Cost:			143364	4283		6678		7008		7339		Cont.	Cont.	

Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT
323

Event Name	FY 06				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	1	2	3	4
Technology Insertion	[Redacted]																															
CHS-2 Warranty Ends for H/W Procured Option Yrs 6-10	[Redacted]																															
CHS-2 Warranty Extension If Required	[Redacted]																															
CHS-3 V1 Hardware Deliveries	[Redacted]																															
CHS-3 V2 Hardware Deliveries	[Redacted]																															

Schedule Detail (R4a Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT
323

<u>Schedule Detail</u>	<u>FY 2006</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>
Technology Insertion	1Q - 4Q							
CHS-2 Warranty Ends for H/W Procured Option Yrs 6-10	1Q - 4Q	1Q - 3Q						
CHS-2 Warranty Extension If Required		3Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 3Q		
CHS-3 V1 Hardware Deliveries	1Q - 4Q	1Q - 3Q						
CHS-3 V2 Hardware Deliveries	1Q - 4Q	1Q - 3Q						

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar								PROJECT 334	
COST (In Thousands)	FY 2006 Actual	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
334 COMMON SOFTWARE	14270	11632	21145	23967	24276	25236	27640	27644		175810

A. Mission Description and Budget Item Justification: Project D334 Common Software (CS): Common Software is the program through which the Army procures, develops, integrates and tests common software products and/or components used for communication between Army Battle Command Systems (ABCS), Joint and coalition Command and Control (C2) applications. The CS project provides state-of-the-art software technologies and functionality that is used by numerous Army Battle Command Systems (ABCS) and joint systems thereby eliminating the need for similar independent development and duplication of effort. The CS program is a cornerstone in the Army's digitization efforts. FY08 and FY09 funding will continue the development, acquisition management, and delivery of CS products in support of Army and Joint Service customer requirements. Funding will also be used to develop the System of Systems (SOS) architecture for Battle Command systems providing a cohesive development strategy amongst C2 systems.

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Continue the development, acquisition management and delivery of CS products in support of Army and Joint Service customer requirements to include software upgrades. Continue to achieve enhanced levels of interoperability by defining, testing and implementing software technologies that are provided to the warfighter. CS products will bridge current to future force technologies in support of the Future Combat System (FCS) and the Army's way ahead.	6380			
Continue execution of the Common Software technology and reuse program; support customer integration and testing; explore and evaluate new software technologies in support of the overall CS program; and develop, upgrade and deliver DII COE products into Army and Joint Service systems. The CS products released to the Army and Joint Programs are also used in support of the US/Allied coalition efforts.	7890			
Continue the development, acquisition management and delivery of Common Software (CS) products in support of Army and Joint Services customer requirements. This shall include the area of military messaging for Variable Message Format (VMF) and United States Message Text Format (USMTF), e-mail integration and bridging data exchanging with the Battle Command Common Services architecture. CS products will bridge current to future force technologies in support of the Future Combat Systems (FCS) and Army's campaign plan.		9290	13500	15440
Serve as the executive agent and provide software for interoperability, for Joint and Coalition efforts. These efforts include Coalition interoperability between GCCS family of systems, Coalition interoperability with Battle Command systems and developing new interoperability data model standards including validation and management.		2060	3375	3861
Develop the System of System (SOS) architecture for Battle Command (BC) systems to establish a cohesive development strategy amongst C2 systems. The architecture shall be established through the Office of the Chief Architect and the vision developed in coordination with Battle Command Migration Plan developed by TRADOC Program Integration Office/BC. The architecture shall include evolving technologies such as Service Oriented Architecture (SOA), Net-Centric Enterprise Services (NCES) and eventual migration to Future Combat Systems.			4270	4666

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

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BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar	PROJECT 334
Small Business Innovative Research/Small Business Technology Transfer Programs		282
Total	14270	11632
		21145
		23967

<u>B. Other Program Funding Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
Not applicable for Common Software Program										

Comment:

C. Acquisition Strategy Competively award Time and Material contracts to support efforts for development, integration, maintenance and test of Common Software Products and services. The overall goal is the improvement of life cycle costs by providing Common products that are used horizontally across programs thereby avoiding duplication of efforts by Army and Joint programs.

ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software									334		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Matrix Support of CS Lab, Data Access	MIPR	CECOM, Fort Monmouth, NJ	1853										1853	
Engineering/Software Development	C, T&M	Various Contractors / Various Locations	41198	12513	1-3Q	8383	1-3Q	12313	1-3Q	14437	1-3Q	Cont.	Cont.	
ABCS System Engineering & Integration	MIPR	PEO C3T, Fort Monmouth, NJ	210										210	
ABCS/Army System Engineering & Integration	C, T&M	Various Contractors / Various Locations				118	2Q	1330	2Q	1410	2Q	Cont.	Cont.	
Battle Command Chief Architect Support								4270	1-3Q	4666	1-3Q	Cont.	Cont.	
Digital System Engineers	C, T&M	Mantech, Ft. Hood, TX	14400										14400	
3D Display Technology	OTA	Concurrent Technology Corp., Johnstown, PA	9083										9083	
IDM-T Engineering Support	MIPR	GSA Contractors	2000										2000	
DISA Support for COE	MIPR		1486										1486	
SBIR/STTR						282	2Q						282	
Subtotal:			70230	12513		8783		17913		20513		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Program Support	In-house	PM Battle Command, Ft. Monmouth, NJ	1593	841	1-3Q	866	1-3Q	904	1-3Q	955	1-3Q	Cont.	Cont.	
Automation Support	C, T&M	ESP, Oceanport, NJ	664	171	1-2Q	179	1-2Q	194	2Q	209	2Q	Cont.	Cont.	
Subtotal:			2257	1012		1045		1098		1164		Cont.	Cont.	

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Software

PROJECT
334

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Developmental Test	C, T&M	Various Contractors/Various locations				1033	2-3Q	1324	1-3Q	1440	1-3Q	Cont.	Cont.	
Subtotal:						1033		1324		1440		Cont.	Cont.	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Program Office Management	In-House	Fort Monmouth, NJ	3077	745	1-4Q	771	1-4Q	810	1-4Q	850	1-4Q	Cont.	Cont.	
Subtotal:			3077	745		771		810		850		Cont.	Cont.	

Project Total Cost:	75564	14270		11632		21145		23967		Cont.	Cont.	
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Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT
334

Event Name	FY 06				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	1	2	3	4
Software Block 8-10 Initial thru Final Delivery																																
Software Block 9-11 Initial thru Final Delivery																																
Software Block 10-12 Initial thru Final delivery																																
Software Block 11-13 Initial thru Final delivery																																
Software Block 12-14 Initial thru Final delivery																																
Software Block 13-15 Initial thru Final delivery																																
Software Block 14-16 Initial thru Final delivery																																
Software Block 15-17 Initial thru Final delivery																																

Schedule Detail (R4a Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT
334

<u>Schedule Detail</u>	<u>FY 2006</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>
Software Block 8-10 Initial thru Final Delivery	2Q - 4Q							
Software Block 9-11 Initial thru Final Delivery		2Q - 4Q						
Software Block 10-12 Initial thru Final delivery			2Q - 4Q					
Software Block 11-13 Initial thru Final delivery				3Q - 4Q	1Q			
Software Block 12-14 Initial thru Final delivery					2Q - 4Q			
Software Block 13-15 Initial thru Final delivery						2Q - 4Q		
Software Block 14-16 Initial thru Final delivery							2Q - 4Q	
Software Block 15-17 Initial thru Final delivery								2Q - 4Q

Note: Scheduled deliveries are based on Software Blocking timelines.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

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BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar							PROJECT C15	
COST (In Thousands)	FY 2006 Actual	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
C15 MOUNTED BATTLE COMMAND ON-THE-MOVE (MBCOTM)	9507	9987	22020	11904	8383	1000				62801

A. Mission Description and Budget Item Justification: This project funds the procurement of the Mounted Battle Command on the Move System (MBCOTM). MBCOTM is a Command, Control, Computers, Communications, Intelligence (C4I) mission equipment package/ B Kit integrated into TO&E authorized platforms which allows Brigade and above Commanders to move to the decisive point on the battlefield. The focus of MBCOTM is to facilitate commander execution of Netcentric operations versus command post centric operations. MBCOTM provides the battle command commander situational awareness in the form of a digital common operational picture enabling a commander to maintain situational understanding while On The Move (OTM) and when physically separated from fixed command posts. MBCOTM provides battle command enablers to support war (i.e., deterring aggression and coercion; fighting conflicts) and operations other than war (i.e., peacekeeping, domestic disaster relief, reducing potential conflicts, promoting regional stability, humanitarian missions and homeland security). MBCOTM supports the mission area of Command and Control. Future capabilities will include adding Joint Tactical Radio System (JTRS) and Wideband Gapfiller system (WGS). Future improvements will include addition of Secure Wireless Local Area Network (SWLAN), Land Warrior, and Unmanned Aerial Vehicle (UAV) feed, as well as the integration of MF-TDMA technology which allows large numbers of MBCOTMs to populate the battlefield and provide OTM communications services and range extension on the Battlefield. Other future enhancements will include 20 inch KU SOTM antennas, 18 or 20 inch Ku/Ka Satellite on the Move (SOTM) antenna, Multiple Frequencies Time Division Multiple Access (MF TDMA)modem with spreading at 512kbps Tx, 1+mbps Rx, NIPR/SIPR, and wireless access point. In FY08 procurement of 4 Bradley and 1 Stryker MBCOTM test articles. In FY08 and FY09 MBCOTM will go through an IOT&E test event.

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
System Development/Tech Upgrades	5198	4935	5466	5670
Prototype Build			11624	2587
Log Development/CLS	424			
Program Spt/SSEB	2717	347	247	247
Test/Evaluation	1168	4424	4683	3400
SBIR/STTR		281		
Total	9507	9987	22020	11904

<u>B. Other Program Funding Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
Mounted Battle Command on the Move MBCOTM	18859	72742	42000	70530	73449	84242	28340	38244	Continuing	428406

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

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BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT

C15

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Comment:

C. Acquisition Strategy Mounted Battle Command on the Move (MBCOTM) will be integrated on three vehicle platforms: HMMWV, Bradley Command Vehicle, and the Stryker Command Vehicle. Various tests will be run throught this SDD phase such as Systems and Engineering tests for the MBCOTM PP1 HMMWV variant. Upgrades to include PLGRS to DGRS. The Government is developing technology demonstrators of the Common Army Marine Command and Control Vehicle (CAMC2V) which will be designed to be a Transit Case solution (Mission Equipment Package/B Kit) to be integrated on a HMMWV. This is a cooperative variant being developed with the Army and Marine Corps in order to gather information for writing the product specification, as well as to gain better insight on a design. This competitive Request for Proposal (RFP) for the System Design and Development (SDD) phase for the Bradley, Stryker and CAMC2V variant is anticipated 3QFY07. Award of this contract is scheduled for 3QFY07.

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Softwar									C15		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
System Development/Prototype build	T&M	TBD		5198	1-2Q	4935	3Q	17090	1-2Q	8257	1-2Q	Cont.	Cont.	
Subtotal:				5198		4935		17090		8257		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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/ICS/Log Development	T&M	Various		424	1-2Q		1Q					Cont.	Cont.	
Subtotal:				424								Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Operational Assessments/IOT&E	MIPR	Army Test and Evaluation Center		1168	2Q	4424	3-4Q	4683	1-2Q	3400	1-2Q	Cont.	Cont.	
Subtotal:				1168		4424		4683		3400		Cont.	Cont.	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Program Management	MIPR	Various		2717	1-2Q	347	1-2Q	247	1-2Q	247	1-2Q	Cont.	Cont.	
SBIR/STTR						281							281	

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BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar							PROJECT C15		
Subtotal:		2717		628		247		247	Cont.	Cont.

Project Total Cost:		9507		9987		22020		11904	Cont.	Cont.
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Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Software

PROJECT
C15

Event Name	FY 06				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	1	2	3	4
ARP					ARP																											
SSEB									SSEB																							
(1) MS C LRIP									▲ MS C LRIP																							
CONTRACT AWARD																																
(2) CRITICAL DESIGN REVIEW									▲ CRITICAL DESIGN REVIEW																							
(3) IOT&E (STRYKER)									▲ IOT&E (STRYKER)																							
(4) MS C FRP (STRYKER)																	▲ MS C FRP (STRYKER)															
MS C FRP (BRADLEY)																																
STRYKER PRODUCTION / DEPLOYMENT																					STRYKER PRODUCTION / DEPLOYMENT											
BRADLEY PRODUCTION / DEPLOYMENT																									BRADLEY PRODUCTION / DEPLOYMENT							
(5) IOT&E (BRADLEY)																									▲ IOT&E (BRADLEY)							

Schedule Detail (R4a Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Software

PROJECT
C15

<u>Schedule Detail</u>	<u>FY 2006</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>
ARP		1Q - 3Q						
SSEB		2Q - 3Q						
MS C LRIP		2Q						
CONTRACT AWARD		3Q						
CRITICAL DESIGN REVIEW		3Q						
IOT&E (STRYKER)		3Q - 4Q	1Q					
MS C FRP (STRYKER)				1Q				
MS C FRP (BRADLEY)				1Q				
STRYKER PRODUCTION / DEPLOYMENT				1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 2Q	
BRADLEY PRODUCTION / DEPLOYMENT				1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 2Q	
IOT&E (BRADLEY)			3Q - 4Q	1Q				
MS B								

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar							PROJECT C29		
COST (In Thousands)	FY 2006 Actual	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
C29 CENTRALIZED TECHNICAL SUPPORT FACILITY (CTSUF)	15207	10115	20548	10221	9876	8780	8743	8936		92426

A. Mission Description and Budget Item Justification: Project DC29 - Centralized Technical Support Facility: The Central Technical Support Facility (CTSUF) is located in Fort Hood, Texas. The CTSUF provides a centralized on-the-ground capability to ensure interoperability among various digitized platforms and serves as the final integration and maturation facility for Common Operating Environment (COE). The CTSUF is the Warfighters "Edge" that acts as an enabler for rapid integration of dissimilar software and hardware systems through real time, on-site integration of soldiers, contractors, testers, Program Managers and the requirements community. Also the CTSUF provides a single technical "center of mass" for software checkout and system integration and provides a controlled environment with connectivity to other C4I systems either on-site or through the Army Interoperability Network (AIN) to support digital integration and fielding. This effort supports the Current to Future transition path.

Accomplishments/Planned Program:	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Continue test planning/procedures/execution/reporting	1674	1814	5200	2000
Continue software engineering.	1741	1791	100	400
Provide infrastructure (Facilities, upgrades, additions).	6845	1236	1640	
Continue Digital System Engineering	1089	1120	4935	3425
Continue management operations.	1104	1135	6773	3241
Provide equipment for instrumentation, simulation/stimulation, software evaluation and development tools.	755	777		
Continue configuration management.	689	709	750	500
Provide networks connections to include DISN, SIPRNET, NIPRNET, GUARDNET.	263	270	500	500
Provide logistics support.	194	200	150	155
Provide DA Mandated Intra-Army Digital Certification test and validation.	853	795	500	
Small Business Innovative Research/Small Business Technology Transfer		268		
Total	15207	10115	20548	10221

B. Other Program Funding Summary Not applicable for this item.

C. Acquisition Strategy This project provides the technical and programmatic disciplines required for systems engineering and integration, experimentation, acquisition

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

**0604818A - Army Tactical Command & Control Hardware &
Softwar**

PROJECT

C29

management, testing, software development, interoperability, fielding and sustainment to ensure an interoperable and affordable ATCCS. The Program Executive Officer for Command, Control, Communications, Tactical (PEO C3T) has planned an evolutionary approach to fielding ATCCS as soon as possible.

ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Softwar									C29		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
CSC (MANTECH -Direct Labor)	C/CPFF	Fort Hood, TX	7305	7751	1Q	1377	1Q	6773	1-2Q	2241	1-2Q	Cont.	Cont.	Cont.
COMPUTER SCIENCE CORP (System Engineering)	C/CPAF	Fort Hood, TX/Fort Monmouth, NJ	3558	1013	1Q	1086	1Q	3000	1-2Q	1500	1-2Q	Cont.	Cont.	Cont.
MITRE Corp (System Engineering)	C/CPFF	Fort Hood, TX/Eatontown, NJ	3220	921	1Q	948	1Q	1925	1-2Q	1925	1-2Q	Cont.	Cont.	Cont.
CAMBER (Config Mgt/)	C/CPAF	Fort Hood, TX	1800	501	1Q	515	1Q	750	1-2Q	500	1-2Q	Cont.	Cont.	Cont.
Northrop Grumman (Field Engineering)	C/CPIF	Fort Hood, TX	2964	844	1Q	868	1Q					Cont.	4676	Cont.
NICHOLS (Logistics Support)	C/CPAF	Fort Hood, TX	2311	659	1Q	678	1Q					Cont.	3648	Cont.
ILEX (Field Engineering)	C/CPAF	Fort Hood, TX	1158	330	1Q	339	1Q					Cont.	1827	Cont.
ROBBINS- GIOIA (Data Base Management)	C/CPAF	Fort Hood, TX/Fort Monmouth, NJ	921	262	1Q	270	1Q	500	1-2Q	500	1-2Q	Cont.	Cont.	Cont.
GTE	C/CPFF	Fort Hood, TX	711	203	1Q	209	1Q					Cont.	Cont.	Cont.
EWA	C/CPAF	Fort Hood, TX	429	122	1Q	125	1Q					Cont.	676	Cont.
Subtotal:			24377	12606		6415		12948		6666		Cont.	Cont.	Cont.
II. Support Costs														
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
CECOM Matrix	MIPRs	Fort Hood, TX/Fort Monmouth, NJ	145			145	1-2Q	150	1-2Q	155	1-2Q	Cont.	Cont.	Cont.
In-House Support	MIPRs	Fort Hood, TX	432	133	1Q	500	1-2Q	500	1-2Q	500	1-2Q	Cont.	Cont.	Cont.
Other Government Support	MIPRs	Fort Hood, TX	138	46	1Q	225	1-2Q	1000	1-2Q	400	1-2Q	Cont.	Cont.	Cont.
Subtotal:			715	179		870		1650		1055		Cont.	Cont.	Cont.

ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT
C29

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
ELECTRONIC PROVING GROUNDS (EPG)	MIPR		7096	2025	1-2Q	2082	1-2Q	5200	1-2Q	2000		Cont.	Cont.	Cont.
CAMBER (Testing)	CPAF	Fort Hood, TX	1350	397	1-2Q	480	1-2Q	750	1-2Q	500		Cont.	Cont.	Cont.
Subtotal:			8446	2422		2562		5950		2500		Cont.	Cont.	Cont.

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
SBIR / SBTT						268	1-2Q						268	
Subtotal:						268							268	

Project Total Cost:	33538	15207		10115		20548		10221		Cont.	Cont.	Cont.
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Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT
C29

Event Name	FY 06				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	1	2	3	4

Schedule Detail (R4a Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT
C29

<u>Schedule Detail</u>	<u>FY 2006</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>
Army Battle Command System (ABCS) 6.3 Test/Fixes/Integration								
ABCS 6.4 System of System (SoS) Integration								
Operation Iraqi Freedom (OIF)	1Q - 4Q	1Q - 4Q	1Q - 4Q					
ABCS 6.4 Test Window								
Operation Enduring Freedom (OEF)	1Q - 4Q	1Q - 4Q	1Q - 4Q					
I Corps Warfighter								
Prairie Warrior 05								
III Corps Warfighter								
Prairie Warrior	1Q - 4Q	1Q - 4Q	1Q - 3Q					
Ulchie Focus Lens (UFL)	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Certification Software Blocking	1Q - 4Q	1Q - 4Q	1Q - 4Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar							PROJECT C34	
COST (In Thousands)	FY 2006 Actual	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
C34 ARMY TAC C2 SYS ENG	14445	11402	12009	11651	19551	19967	20765	21596		131386

A. Mission Description and Budget Item Justification: Project DC34 - Army Tactical Command and Control Systems (ATCCS) Engineering which is also referred to as Systems Engineering and Integration (SE&I): Doctrine requires military leaders to make sound and timely command and control decisions to direct the activities of assigned and supporting units. The umbrella program to exploit automation technology in support of this mission is the ATCCS or SE&I program. The effort to achieve horizontal integration of the ATCCS Battlefield Functional Areas (BFAs), although going on independently in each BFA, was not disciplined enough to address all connections and needs within the entire spectra of command, control and communications. Therefore, to ensure this horizontal integration effort is complete and fully automated, a significant management, systems engineering and integration effort is required. This effort, supporting the Army Battle Command Systems (ABCS) Version 6.30, includes fielding the ABCS Version 6.4 to the entire Army in four years and the current to the future transition path. The four year fielding is with "Good Enough" software and the future transition path was developed as the "Top Down Architecture".

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Continue Army Battle Command System (ABCS) Integrated Logistics Support	382	713	752	729
Continue ABCS Testing and Evaluation of all Battlefield Functional Area (BFA) fielded software	803	747	788	764
Continue ABCS Fielding/Scheduling	1410	985	1034	980
Continue ABCS Integrated Training Support				
Continue ABCS information engineering	2209	1177	1241	1228
Conduct and support system interoperability engineering	571	318	335	325
Continue exploring state of the art technology insertion in support of the ABCS program	373	1480	1559	1512
Continue development and implementation of the ABCS information assurance	525	292	307	298
Continue ABCS System Engineering	4082	2666	3146	3052
Continue System of Systems Development	4090	2703	2847	2763
Small Business Innovative Research/Small Business Technology Transfer Programs		321		
Total	14445	11402	12009	11651

B. Other Program Funding Summary Not applicable for this item.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT

C34

C. Acquisition Strategy This project provides the technical and programmatic disciplines required for systems engineering and integration, experimentation, acquisition management, testing, interoperability, support to fielding and sustainment to ensure an interoperable and affordable Army Tactical Command and Control Systems (ATCCS). The Program Executive Officer for Command , Control, Communications, Tactical (PEO C3T) has planned an evolutionary approach to fielding ABCS 6.4 in four years which ends in first quarter FY08. Fiscal years FY08 and FY09 will focus on "Systems of Systems" Engineering and integration for evolution toward JC2 and FCS.

ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Softwar									C34		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Northrop Grumman	C/CPHF	Fort Monmouth, NJ/Fort Hood, TX	10553	595	1Q	1692	1Q	1885	1-2Q	1942	1-2Q	Cont.	Cont.	Cont.
CSC	C/CPAF	Fort Monmouth, NJ/Fort Hood, TX	32534	4044	1Q	888	1-2Q	1440	1-2Q	1483	1-2Q	Cont.	Cont.	Cont.
MITRE	C/CPFF	Ft Monmouth, NJ/Eatontown, NJ	31582	6522	1Q	3934	1Q	5461	1-2Q	4862	1-2Q	Cont.	Cont.	Cont.
MANTECH (Direct Labor)	C/CPFF	Fort Monmouth, NJ/Fort Hood, TX	6496										6496	6546
CAMBER (Config Mgt/)	C/CPAF	Fort Hood, TX	1788										1788	855
ROBBINS-GIOIA	C/CPAF	Fort Monmouth, NJ/Fort Hood, TX	5512	1620	1Q	890	1Q	160	1-2Q	165	1-2Q	Cont.	Cont.	Cont.
LOCKHEED MARTIN	C/CPAF	Eatontown, NJ	6034		1-2Q	640	1Q	618	1-2Q	679	1-2Q	Cont.	Cont.	Cont.
GTE (Labor and Equipment)	C/CPFF	Fort Hood, TX	2281				1Q					Cont.	2281	Cont.
Misc Contracts	C/CPAF	Fort Monmouth, NJ/Fort Hood, TX	5888			90	1-2Q					Cont.	Cont.	Cont.
Unixpros	C/CPAF	Eatontown, NJ	3711										3711	3711
ATSC	MIPR	Fort Leavenworth, KY	1850									Cont.	1850	Cont.
IDA	MIPR	Fort Monmouth, NJ	1724									Cont.	1724	Cont.
ITT	C/CPAF	Eatontown, NJ	1070									Cont.	Cont.	Cont.
MISCELLANEOUS SUPPORT	C/CPAF	Eatontown, NJ/Fort Hood, TX	1985			566	1-2Q					Cont.	Cont.	Cont.
BOOZ-ALLEN	C/CPAF	Eatontown, NJ	1950				1Q					Cont.	Cont.	Cont.
Subtotal:			114958	12781		8700		9564		9131		Cont.	Cont.	Cont.
II. Support Costs	Contract Method &	Performing Activity & Location	Total PYs	FY 2006 Cost	FY 2006 Award	FY 2007 Cost	FY 2007 Award	FY 2008 Cost	FY 2008 Award	FY 2009 Cost	FY 2009 Award	Cost To Complet	Total Cost	Target Value of

ARMY RDT&E COST ANALYSIS (R3)											February 2007			
BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software									C34		
	Type		Cost		Date		Date		Date		Date	e		Contract
IN-HOUSE SUPPORT	MIPRs	Fort Monmouth, NJ/Fort Hood, TX	6062	352	1Q	1294	1Q	1630	1-2Q	1680	1-2Q	Cont.	Cont.	Cont.
CECOM MATRIX	MIPRs	Fort Monmouth, NJ/Fort Hood, TX	5027	1031	1Q	791	1Q	815		840		Cont.	Cont.	Cont.
OTHER GOVERNMENT SUPPORT	MIPRs	Fort Monmouth, NJ/Fort Hood, TX/Fort Belvoir, VA	3469	137	1Q	144	1Q					Cont.	3750	Cont.
Subtotal:			14558	1520		2229		2445		2520		Cont.	Cont.	Cont.
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
EPG	MIPR	Fort Huachuca, AZ	2593	144	1Q	152	1Q					Cont.	2889	
Subtotal:			2593	144		152						Cont.	2889	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
SBIR/STTR			792			321	1-2Q						1113	
Subtotal:			792			321							1113	
Project Total Cost:			132901	14445		11402		12009		11651		Cont.	Cont.	Cont.

Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT
C34

Event Name	FY 06				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	1	2	3	4

Schedule Detail (R4a Exhibit)

February 2007

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

**PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware &
Softwar**

**PROJECT
C34**

<u>Schedule Detail</u>	<u>FY 2006</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>
NATIONAL TRAINING CENTER (NTC) ROTATIONS	1Q - 4Q	1Q - 4Q	1Q - 4Q					
ABCS 6.4 SOFTWARE DEVELOPMENT and TESTING								
SBCT - 4 FIELDING								
SBCT-5 FIELDING	1Q - 3Q							
SBCT-6 FIELDING	1Q - 4Q	1Q - 3Q						
FUTURE OPERATIONAL ARCHITECHTURE (OA)/SYSTEM ARCHITECTURE (SA)		1Q - 4Q	1Q - 4Q	1Q - 4Q				
ABCS SYSTEMS ENGINEERING & INTEGRATION TRANSITION TO FCS		1Q - 4Q	1Q - 4Q	1Q - 4Q				
FIELDING OF ABCS 6.4 TO ARMY	1Q - 4Q	1Q						

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar							PROJECT C3A		
COST (In Thousands)	FY 2006 Actual	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
C3A ARMY AIRBORNE COMMAND & CONTROL SYS (A2C2S)	7168	10087								17255

A. Mission Description and Budget Item Justification: This project funds the development of an Airborne Battle Command On The Move System. Provides the maneuver commander with a highly mobile, self-contained and reliable airborne digital command post with command, control, communications, and computers (C4) systems needed to command and control in joint, interagency, and multi-national environments. Tasks in this project support RDTE efforts in the Low Rate Initial Production (LRIP) phase of this system. Major upcoming events planned include Initial Operational Test and Evaluation, JITC inteoperability certification, engineering and development of system technical improvements, and test and evaluation in support of obtaining a statement of airworthiness qualification. The Army Airborne Command and Control System (A2C2S) supports the Brigade Combat Teams, Division, Corps and Theater Army Commanders. The A2C2S enables Commanders and their staffs, to traverse the battle space rapidly - maintaining situational awareness of all battlefield systems and maintaining communications. Using Battle Command Software coupled with line-of-sight and non-line-of-sight voice and data communications the A2C2S provides information superiority through a common operational picture. This system is critical to enhance the Battle Command Group's ability to effectively perform combat operations and serve as a force multiplier in the Future Force. Due to new technology and requirements to be compatible, design integration will be required to retrofit existing A2C2S systems. A2C2S supports the Chief's Vision and the modularity concept of the Army Over Time. In addition, A2C2S is the airborne first-responder for Homeland Defense and disaster relief by providing a robust communications platform for emergency response coordinators of air and ground operations. It will support disaster coordination between state, federal, civilian and military organizations.

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Continue System Development and Evaluation	3003	2605		
Continue "Good Enough" Integration (ABCS 6.4 and NLOS SATCOM)	760	665		
Continue AWQ, Development and Operational Test	2913	5217		
Complete Technical Manuals	492	600		
Develop Homeland Defense (HLD) Capabilities (Civil Use Waveforms and Applications)		1000		
Total	7168	10087		

<u>B. Other Program Funding Summary</u>	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
Airborne Command and Control SSN AA0710	27678	40220								67898

Comment:

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604818A - Army Tactical Command & Control Hardware & Softwar

PROJECT

C3A

C. Acquisition Strategy A competitive cost type contract was awarded for A2C2S development in August 2001 to Raytheon. Raytheon produced three (3) rapid prototype systems in FY03 in support of OEF/OIF. Raytheon produced five (5) LRIP Systems before the end of the contract period of performance, 30 Sep 05. The PIF upgraded the three (3) rapid prototype A2C2S 1.0 Systems as described in MOA dated Jan 05 and produced four (4) LRIP A2C2S 1.0 System in FY06. The Prototype Integration Facility (PIF) produced one (1) LRIP A2C2S 1.1 Systems in FY06 and two (2) LRIP A2C2S 1.1 Systems in FY07.

ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE									PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Softwar									C3A		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
System Dev and Eval	CPIF, MIPR	Raytheon Huntsville, and PIF JVYS	12523	3669	2Q	4076	1Q						20268	
Prototype Integration (Systems 3 - 7)	CPIF	Raytheon	9497										9497	
Software Integration/Development	CPIF	Raytheon Huntsville	2618										2618	
Systems and Engineering Logistics Support	Various	Raytheon /AMCOM	13884										13884	
ABCS SE&I	MIPR	Ft. Monmouth, NJ	195										195	
Inhouse/Government	Various	Various	560	431	2Q	431	1Q						1422	
Subtotal:			39277	4100		4507							47884	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Support of System 1 and 2 deployed to 4th ID and 101st ABN	Various	Various	3759										3759	
Subtotal:			3759										3759	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
Development Test & Evaluation and AWQ	MIPR/CPIF	ATEC/RTTC/AATD/AED/Raytheon/PIF JVYS	13376	1400	2Q	4925	1Q						19701	
Operational Test	Various	Various	1883	1513	2Q	500	1Q						3896	

ARMY RDT&E COST ANALYSIS (R3)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar								PROJECT C3A		
Subtotal:				15259	2913		5425						23597	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2006 Cost	FY 2006 Award Date	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
In-House/Gov't			5630	155	1Q	155	1Q						5940	
Subtotal:			5630	155		155							5940	

Project Total Cost:			63925	7168		10087							81180	
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Schedule Profile (R4 Exhibit)

February 2007

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604818A - Army Tactical Command & Control Hardware & Software

PROJECT
C3A

Event Name	FY 06				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	1	2	3	4
Program Milestones																																
Testing and Evaluation																																
Operational Assessment																																
(1) IOC																																
(2) Material Release																																
(3) Operational Test																																
(4) System Evaluation Report																																
(5) FRP Decision																																
FRP																																

Schedule Detail (R4a Exhibit)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar	PROJECT C3A
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<u>Schedule Detail</u>	<u>FY 2006</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>
Program Milestones								
MS C								
Testing and Evaluation								
Operational Assessment	1Q - 4Q							
Field Test								
IOC	2Q							
Material Release			3Q					
Operational Test			4Q					
System Evaluation Report			4Q					
FRP Decision				1Q				
FRP				1Q - 4Q	1Q - 4Q	1Q - 4Q		

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2007

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Softwar						PROJECT JN1		
COST (In Thousands)	FY 2006 Actual	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
JN1 JOINT NETWORK NODE (JNN) TESTING	7200		16472							23672

A. Mission Description and Budget Item Justification: As the emerging major component of the Army Bridge to Future Network, the Joint Network Node (JNN) Network is intended to replace legacy Mobile Subscriber Equipment (MSE), while moving the Army to a unified Everything Over Internet Protocol (EOIP) Communication System. This fundamental shift in the Tactical backbone communications system prepares the Army culture and leadership for the future introduction of both Warfighter Information Network-Tactical (WIN-T) and Future Combat System (FCS). Once proliferated throughout the force structure, tied to modernizations for the Global War on Terrorism (GWOT) deployment missions, the JNN Network will provide encrypted internet connectivity, from landfall sanctuaries to the Battalion Echelon. The Network is capable of passing unclassified and classified traffic levels, throughout its entire structure, from Home Station Operations Center (HSOC) to the furthest forward Battalion Elements. Designed to meet modularity and rapid deployment mandates, the Network is also intended to support Joint Communications Requirements, as well as Internet Applications from approved National federal Agencies and Coalition Partners. The Network, by its basic design, will allow incorporation of Future Communication improvements, as well as a lot of technologies for modular Communications, offered by both overmanned and industry sources.

FY 08: RDT&E funding will be used to test the initial out put of the production from the competitive contract award which is expected in June 2007.

<u>Accomplishments/Planned Program:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Operational Testing Event	7200		16472	
Total	7200		16472	

B. Other Program Funding Summary Not applicable for this item.

C. Acquisition Strategy
JNN Network has previously been acquired in substantial quantities as urgent Army directive procurement. JNN Network is in the process of becoming a program of record. It is planned to obtain Milestone C in March 2007. A competitive contract award is expected in June 2007. RDT&E funding will be used to test the initial out put of the production.