

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE			
5 - System Development and Demonstration		0604818A - Army Tactical Command & Control Hardware & Software			
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	109923	65317	90864	Continuing	Continuing
323 COMMON HARDWARE SYSTEMS	6702	7267	12197	Continuing	Continuing
334 COMMON SOFTWARE	20235	21756	16902	Continuing	Continuing
C15 MOUNTED BATTLE COMMAND ON-THE-MOVE (MBCOTM)	21064	11789	317	Continuing	Continuing
C29 CENTRALIZED TECHNICAL SUPPORT FACILITY (CTSF)	19604	12967	16827	Continuing	Continuing
C34 ARMY TAC C2 SYS ENG	13091	11538	31829	Continuing	Continuing
C39 Tactical Operations Centers (TOCs)	13474			Continuing	Continuing
JN1 JOINT NETWORK NODE (JNN) TESTING	15753		12792		28545

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. Fiscal years FY10 and FY11 will focus on "Systems of Systems" Engineering and integration for evolution of the network (Warfighter Information Network-Tactical, Joint Tactical Radio System) and associated services (Unified Battle Command, Joint Battle Command-Platform, Net-Enabled Command Capability, Network Service Center) with increased emphasis on immediate Warfighter needs as well as leveraging emerging technologies. 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. The Joint Network Node (JNN) Testing is the Increment 1b Technical Insertion to Increment 1a for Operational Test, which will be conducted in FY 10 and in coordination with the Increment 2 Initial Operational Test and Evaluation. These systems support the Legacy to Objective transition path.

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<u>B. Program Change Summary</u>	FY 2008	FY 2009	FY 2010
Previous President's Budget (FY 2009)	100132	67535	57163
Current BES/President's Budget (FY 2010)	109923	65317	90864
Total Adjustments	9791	-2218	33701
Congressional Program Reductions		-2218	
Congressional Rescissions			
Congressional Increases			
Reprogrammings	9791		
SBIR/STTR Transfer			
Adjustments to Budget Years			33701

Change Summary Explanation: FY 2010: Common Hardware Systems (CHS) \$4.924 million increase is for CHS-4 Non-recurring engineering and testing; Common Software \$4.900 million increase is for development of the System of Systems architecture for Battle Command systems providing a cohesive development strategy amongst C2 systems; Mounted Battle Command on the Move \$8.007 million decrease due to funding being realigned to higher priority requirements; Centralized Technical Support Facility (CTSF) \$7.147 million increase for interoperability integration of systems requiring certification; Army Tactical Command and Control Systems Engineering (ATCCS) \$11,945 million increase for systems integration lab and Wireless Network After Next Technology Experimentation; Joint Network Node Testing \$12,792 million increase for the 1b Technical Insertion to Increment 1a for Operational Test, which will be conducted in FY10 and in coordination with the Increment 2 Initial Operational Test and Evaluation.

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 & Software			PROJECT 323	
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
323 COMMON HARDWARE SYSTEMS	6702	7267	12197	Continuing	Continuing

A. Mission Description and Budget Item Justification: The Common Hardware Systems (CHS) program provides state-of-the-art, fully qualified, interoperable, compatible, deployable, and survivable hardware and computer networking equipment for command, control, and communications at all echelons of command for the United States Army and other DoD services. CHS also provides worldwide repair, maintenance, logistics, and technical support through strategically located contractor-operated Regional Support Centers (RSC) for tactical military units and management of a comprehensive 5-year warranty and 72-hour turnaround for repairs. In FY2010, CHS continues to manage the acquisition and delivery of CHS equipment, technology insertion and common standardized testing in support of customer requirements.

CHS-4, to be awarded 1Q FY10, will be a follow-on to the CHS-3 Contract.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Continue management of the acquisition and delivery of CHS equipment in support of customer requirements	5921	6417	6750
Continue supporting customer testing efforts with CHS equipment	154	200	150
Continue CHS technology insertion	627	447	297
Design, development and testing (NRE Costs) for New CHS-4 Products			5000
Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)		203	
Total	6702	7267	12197

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 automation and other warfighting systems (net centric, etc) through centralized buys of modified/ruggedized non-developmental items. This project provides a coherent migration strategy for Army Battle Command Systems and other acquisition warfighting 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 Battlefield Functional Areas. An Indefinite Delivery/Indefinite Quantity firm fixed priced, full and open competition contract was awarded to GDC4S in May 2003, for ruggedization and production.

There is an increase in FY2010 for development, Non-Recurring Engineering and contract award for CHS-4.

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 & Software

PROJECT

323

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ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT	
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software								323	
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Product Development	Various	Fort Monmouth, NJ	69372	2664	1-3Q	2820	1-3Q	3065	1-3Q	Cont.	Cont.	
Support Costs	MIPR	Fort Monmouth, NJ/Huntsville, AL	57893	3257	1-3Q	3597	1-3Q	3685	1-3Q	Cont.	Cont.	
Technology Insertion	Various	Various	13121	627	1-3Q	650	1-3Q	297	1-3Q	Cont.	Cont.	
GDC4S/CHS-3 Non-Recurring Engineering	C/FFP/IDIQ	Taunton, MA	12000								12000	
GDC4S/CHS-4 Non-Recurring Engineering	C/FFP/IDIQ							5000	1-4Q		5000	
Subtotal:			152386	6548		7067		12047		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 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 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
CHS Test Activities	MIPR	Other Government Activities	1800	154	1-3Q	200	1-3Q	150	1-3Q	Cont.	Cont.	
Subtotal:			1800	154		200		150		Cont.	Cont.	

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software							PROJECT 323		
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
Project Total Cost:			154186	6702		7267		12197		Cont.	Cont.	

Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
323

Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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 Extension	[Redacted]																															
CHS-3 V1/V1+ Hardware Deliveries	[Redacted]																															
CHS-3 V2/V3 Hardware Deliveries	[Redacted]																															
GB-GRAM Consolidated Ordering Through CHS	[Redacted]																															
TSR-2 and TSR-3 Ongoing Contract Management	[Redacted]																															
Common Standard First Article Testing (CHS-3 & CHS-4)	[Redacted]																															
OIF Support	[Redacted]																															
RESET and Deep Cleaning	[Redacted]																															
IPv6 Implementation and Integration	[Redacted]																															
UID Labeling	[Redacted]																															
CHS-4 V1/V1+ Hardware Deliveries	[Redacted]																															
(1) CHS-4 Award	[Redacted]																															
CHS-4 V2/V3 Hardware Deliveries	[Redacted]																															



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
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<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>
Technology Insertion	1Q - 4Q							
CHS-2 Warranty Extension	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 3Q				
CHS-3 V1/V1+ Hardware Deliveries	1Q - 4Q	1Q - 3Q						
CHS-3 V2/V3 Hardware Deliveries	1Q - 4Q							
GB-GRAM Consolidated Ordering Through CHS	1Q - 4Q							
TSR-2 and TSR-3 Ongoing Contract Management	1Q - 4Q	1Q - 2Q						
Common Standard First Article Testing (CHS-3 & CHS-4)	1Q - 4Q							
OIF Support	1Q - 4Q							
RESET and Deep Cleaning	1Q - 4Q							
Out of Warranty Repair	1Q - 4Q							
IPv6 Implementation and Integration	1Q - 4Q							
UID Labeling	1Q - 4Q							
CHS-4 V1/V1+ Hardware Deliveries			3Q - 4Q	1Q - 4Q				
CHS-4 Award			1Q					
CHS-4 V2/V3 Hardware Deliveries			4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software			PROJECT 334	
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
334 COMMON SOFTWARE	20235	21756	16902	Continuing	Continuing

A. Mission Description and Budget Item Justification: Project 334 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 to eliminate the need for service independent development and duplication of effort. The CS project also manages and performs technology demonstrations of emerging technologies for future use by Army C2 systems. The CS program is a cornerstone in the Army's digitization efforts.

FY10 funding will continue the development, acquisition management, and delivery of ABCS Software in support of Army and Joint Service 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 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Continue the development, acquisition management and delivery of the ABCS Software infrastructure in support of Army and Joint Services requirements.	12467	12687	11459
Serve as the executive agent and provide software for interoperability, for Joint and Coalition efforts.	3375	3861	2361
Develop the System of System (SOS) architecture for Battle Command (BC) systems.	4270	4527	2951
Evaluation through demonstration and continuous testing of RFID for movement of materiel from a Defense Distribution Center (DDC) to an Army designated installation and/or tactical supply activity.	123	119	131
Small Business Innovative Research/Small Business Technology Transfer Programs		562	
Total	20235	21756	16902

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

Comment:

C. Acquisition Strategy In accordance with the TRADOC requirements document approved in 2008, entitled Battle Command Essential Capability, software capability will be

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5 - System Development and Demonstration

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PROJECT

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developed in 2-year increments as capability sets designed to Collaborate, Collapse and Converge Battle Command products. The product development funded under this R-Form is an integral part of the Army Battle Command System (ABCS), a system of systems and will be accomplished primarily under a PM Battle Command (BC) system of systems contract approach which consists of multiple prime contracts awarded from a single solicitation that will require each specific development task be competed among primes whenever possible. This strategy is designed to optimize opportunity for improved interoperability among the systems, to capture the benefits of competition and to ensure the rapid integration of new capability into warfighter systems. This strategy is designed to reduce the physical footprint, logistics support requirements and increase operational efficiency.

The overall acquisition goal of the Common Software program is the improvement of life cycle costs by providing common products that are used horizontally across programs avoiding duplication of efforts by Army and Joint programs.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

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 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 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	74694	11403	1-4Q	12365	1-4Q	10425	1-4Q	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	1330	1-4Q	1410	1-4Q	1023	1-4Q	Cont.	Cont.	
Battle Command System of Systems Architecture Development	C, T&M	Various Contractors / Various Locations		4270	1-4Q	4527	1-4Q	2951	1-4Q	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	
Subtotal:			103844	17003		18302		14399		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Support	In-house	PM Battle Command, Ft. Monmouth, NJ	4141	904	1-4Q	955	1-4Q	589	1-4Q	Cont.	Cont.	
Technical Support	C, T&M	Various Contractors / Various Locations	1185	194	1-4Q	209	1-4Q	175	1-4Q	Cont.	Cont.	
Subtotal:			5326	1098		1164		764		Cont.	Cont.	

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III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test	C, T&M	Various Contractors/Various locations	1033	1324	1-4Q	1440	1-4Q	1048	1-4Q	Cont.	Cont.	
Subtotal:			1033	1324		1440		1048		Cont.	Cont.	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Office Management	In-House	Fort Monmouth, NJ	5338	810	1-4Q	850	1-4Q	691	1-4Q	Cont.	Cont.	
Subtotal:			5338	810		850		691		Cont.	Cont.	

Project Total Cost:

115541

20235

21756

16902

Cont.

Cont.

Schedule Profile (R4 Exhibit)

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BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
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Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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
Common Software Capbility Set 09-10 Development	[Red]				[Red]																											
Common Software Capbility Set 11-12 Development	[Red]				[Red]				[Red]																							
Common Software Capbility Set 13-14 Development	[Red]																															
Common Software Capbility Set 15-16 Development	[Red]																															
Common Software Capbility Set 17-18 Development	[Red]																															

Schedule Detail (R4a Exhibit)

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BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software	PROJECT 334
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<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>
Common Software Capbility Set 09-10 Development	1Q - 4Q	1Q						
Common Software Capbility Set 11-12 Development	3Q - 4Q	1Q - 4Q	1Q - 2Q					
Common Software Capbility Set 13-14 Development			3Q - 4Q	1Q - 4Q	1Q - 2Q			
Common Software Capbility Set 15-16 Development					3Q - 4Q	1Q - 4Q	1Q - 2Q	
Common Software Capbility Set 17-18 Development							3Q - 4Q	1Q - 4Q

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BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software			PROJECT C15
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
C15 MOUNTED BATTLE COMMAND ON-THE-MOVE (MBCOTM)	21064	11789	317	Continuing	Continuing

A. Mission Description and Budget Item Justification: The Mounted Battle Command On The Move System (MBCOTM) is a Command, Control, Computers, Communications, Intelligence (C4I) mission equipment package (B Kit) integrated onto Bradley, Stryker, MRAP and Light Tactical Vehicle (A-Kit) 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 net centric 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 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 and Wideband Gapfiller System. Future improvements will include addition of Secure Wireless Local Area Network, Land Warrior, and Unmanned Aerial Vehicle feed, as well as the integration of Multiple Frequencies Time Division Multiple Access (MF-TDMA) technology which allows large numbers of MBCOTMs to populate the battlefield and provide OTM communications services and range extension on the battlefield. In FY09, MBCOTM will go through an IOT&E test event.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
System Development/Tech Upgrades	5044	7291	317
Prototype Build	2364	2890	
Program Spt/SSEB	1353		
Test/Evaluation	12303	1278	
Small Business Innovative Research/Small Business Technology Transfer Programs.		330	
Total	21064	11789	317

<u>B. Other Program Funding Summary</u>	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
Mounted Battle Command on the Move MBCOTM (BZ9970)	50317	43793	926	Continuing	Continuing

Comment:

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PROJECT

C15

C. Acquisition Strategy Mounted Battle Command on the Move (MBCOTM) will be integrated on three vehicle platforms: Light Tactical Vehicle (LTV), Bradley Command Vehicle, and the Stryker Command Vehicle. Upgrades will include Precision Lightweight GPS Receiving System to Defense Advanced GPS Receiver System and Ku Antenna. The Government is developing technology demonstrators of the Common Army-Marine Command and Control Vehicle (CAMC2 B-Kit) which will be designed to be a transit case solution (Mission Equipment Package/B Kit) to be integrated on a LTV. This was a cooperative variant developed with the Army and Marine Corps to gather information for writing the product specification, as well as to gain better insight on the B-Kit design. This competitive Request for Proposal (RFP) for the Production phase for the B-Kit for Bradley, Stryker and LTV was released during 3QFY07. Contract was awarded 2QFY08. Major testing requirements such as Development Test and Initial Operational Test & Evaluation will be funded with FY08 dollars. Development will continue with Bradley and Stryker vehicle A-Kit design, prototype manufacturing and testing during the reporting period.

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 & Software							C15		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
System Development/Prototype build	T&M	TBD	14444	7408	1-2Q	10181	1-2Q	317	1-2Q	Cont.	Cont.	
Subtotal:			14444	7408		10181		317		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering Services/ICS/Log Development					1-2Q		1-2Q					
Subtotal:												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Operational Assessments/IOT&E	MIPR	Army Test and Evaluation Center	4867	12503	1-2Q	1278	1-2Q			Cont.	Cont.	
Subtotal:			4867	12503		1278				Cont.	Cont.	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Management			1200	1153	1-2Q						2353	
SBIR/STTR						330	1-2Q				330	

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 C15	
Subtotal:	1200	1153		330				2683	

Project Total Cost:	20511	21064		11789		317	Cont.	Cont.	
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Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
C15

Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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
SSEB	<div style="position: absolute; top: 5px; left: 5px; background-color: blue; color: white; padding: 2px;">SSEB</div>																															
CONTRACT AWARD					<div style="position: absolute; top: 5px; left: 5px; background-color: blue; color: white; padding: 2px;">CONTRACT AWARD</div>																											
(1) PRELIMINARY DESIGN REVIEW									<div style="position: absolute; top: 5px; left: 5px; background-color: blue; color: white; padding: 2px;">1 PRELIMINARY DESIGN REVIEW</div>																							
(2) CRITICAL DESIGN REVIEW													<div style="position: absolute; top: 5px; left: 5px; background-color: blue; color: white; padding: 2px;">2 CRITICAL DESIGN REVIEW</div>																			
(3) PRODUCTION VERIFICATION TEST																	<div style="position: absolute; top: 5px; left: 5px; background-color: blue; color: white; padding: 2px;">3 PRODUCTION VERIFICATION TEST</div>															
(4) IOT&E (BRADLEY/STRYKER)																					<div style="position: absolute; top: 5px; left: 5px; background-color: blue; color: white; padding: 2px;">4 IOT&E (BRADLEY/STRYKER)</div>											
(5) MS C FRP (BRADLEY/STRYKER)	<div style="position: absolute; top: 5px; left: 5px; background-color: blue; color: white; padding: 2px;">5 MS C FRP (BRADLEY/STRYKER)</div>																															
PROD & DEPLOY (BRADLEY/STRYKER)					<div style="position: absolute; top: 5px; left: 5px; background-color: blue; color: white; padding: 2px;">PROD & DEPLOY (BRADLEY/STRYKER)</div>																											
	<div style="position: absolute; top: 5px; left: 5px; background-color: blue; color: white; padding: 2px;">PROD & DEPLOY (BRADLEY/STRYKER)</div>																															

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE						PROJECT
5 - System Development and Demonstration		0604818A - Army Tactical Command & Control Hardware & Software						C15
<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>
ARP / RFP								
MS C LRIP								
SSEB	1Q - 2Q							
CONTRACT AWARD	1Q - 2Q							
PRELIMINARY DESIGN REVIEW	2Q							
CRITICAL DESIGN REVIEW	2Q							
PRODUCTION VERIFICATION TEST	2Q - 4Q	1Q - 2Q						
IOT&E (BRADLEY/STRYKER)		3Q						
MS C FRP (BRADLEY/STRYKER)		3Q						
PROD & DEPLOY (BRADLEY/STRYKER)		3Q - 4Q	1Q - 4Q	1Q				
MS B								

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software			PROJECT C29	
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
C29 CENTRALIZED TECHNICAL SUPPORT FACILITY (CTSF)	19604	12967	16827	Continuing	Continuing

A. Mission Description and Budget Item Justification: Project C29 - Centralized Technical Support Facility: The Central Technical Support Facility (CTSF) located at FT Hood, Texas, is the Army's premier test, integration, and certification facility for interoperability and net-worthiness. It is the Army's strategic facility responsible for conducting system engineering associated with integrating Army Battle Command System (ABCS) Weapon System architectures into a System of Systems, performing Army Interoperability Certification (AIC) testing and configuration management for all operational and tactical level applications (individual systems, System of Systems, and families of systems) prior to fielding. The CTSF provides validated test data to the Department of the Army and Joint agencies to validate interoperability and net-worthiness certifications. The current expansion of the distributed test environment of the CTSF will be accomplished through the Federation of Net-centric Sites (FaNS) construct. This FaNS construct addresses distributed integration development and testing using the core infrastructure of the CTSF to harness AMC, Army, and Joint expertise/resources. Through these federated resources, the CTSF will execute interoperability development and certification testing of the Warfighter and Business mission areas, to include Future Combat System, as they digitize and become part of the Army's LandWarNet.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Continue certification test planning/procedures/execution/reporting, interoperability baseline testing, simulation/stimulation validation and distributed testing.	5009	2000	4690
Continue systems engineering of foundation/data products, software validation/verification, network engineering, integration labs, information assurance.	100	400	3863
Maintained 250,000 square foot facility, with 41,305 sq. ft. dedicated to Army Integration Certification testing and systems engineering. Continue to provide infrastructure.	1443	2398	2035
Transitioned Digital System Engineering to SEC.	4935	3425	
Continue management operations.	6217	3241	2038
Continue configuration management.	750	500	894
Provide IT infrastructure networks connections to include DISN, SIPRNET, NIPRNET, GUARDNET.	500	500	2275
Provide logistics support.	150	155	319
Provide DA Mandated Army Intraoperability Certification test and validation.	500		322
Continue to provide certification testing for Data Products.			391
Small Business Innovative Research/Small Business Technology Transfer		348	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)		May 2009		
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT		
5 - System Development and Demonstration	0604818A - Army Tactical Command & Control Hardware & Software	C29		
Total		19604	12967	16827
B. Other Program Funding Summary Not applicable for this item.				
<p>C. Acquisition Strategy Execute system of systems interoperability development and testing through the use of Government and Systems Engineering and Technical Analysis (SETA) contract personnel experienced in product development and interoperability testing. Development and testing occurs in a cyclical fashion, with an expectation of an annual Software Block/Capability Set test followed with out-of-cycle and maintenance test events to ensure integrity of software baselines to the Warfighter. Interoperability development/system engineering provides strategic integration of software into a system of systems/family of systems environment to support interoperability testing. Establish and maintain Configuration Management and version control of the Interoperable Fielded Baseline and the LandWarNet Baseline, providing authoritative data source. Further expand distributed development and testing capability using local assets and leveraging other federated test facilities to create synergy and realize efficiencies.</p>				

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software							C29		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
CSC/MANTECH (Direct Labor)	C/CPFF	Fort Hood, TX	23990	5829	1-2Q	4404	1Q			Cont.	Cont.	Cont.
CSC (System Engineering)	C/CPAF	Fort Hood, TX/Fort Monmouth, NJ	6670	3000	1-2Q	1500	1Q			Cont.	Cont.	Cont.
MITRE Corp (System Engineering)	C/CPFF	Fort Hood, TX/Eatontown, NJ	6010	1925	1-2Q	1925	1Q	416	1Q	Cont.	Cont.	Cont.
CAMBER (Config Mgt/)	C/CPAF	Fort Hood, TX	3317	750	1-2Q	500	1Q			Cont.	Cont.	Cont.
ILEX (Field Engineering)	C/CPAF	Fort Hood, TX	2157							Cont.	2157	Cont.
ROBBINS- GIOIA (Data Base Management)	C/CPAF	Fort Hood, TX/Fort Monmouth, NJ	1715	500	1-2Q	500	1Q			Cont.	Cont.	Cont.
CACI (JB Mgt)	C/CPAF	Fort Hood, TX						2040	2Q	Cont.	Cont.	Cont.
Subtotal:			43859	12004		8829		2456		Cont.	Cont.	Cont.
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
CECOM Matrix	MIPRs	Fort Hood, TX/Fort Monmouth, NJ	290	150	1-2Q	390	1Q	391	1Q	Cont.	Cont.	Cont.
In-House Support	MIPRs	Fort Hood, TX	1198	500	1-2Q	500	1Q	627	1Q	Cont.	Cont.	Cont.
Other Government Support	MIPRs	Fort Hood, TX	455	1000	1-2Q	400	1Q	612	1Q	Cont.	Cont.	Cont.
Subtotal:			1943	1650		1290		1630		Cont.	Cont.	Cont.
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software							C29		
ELECTRONIC PROVING GROUNDS (EPG)/NewTec	C/CPAF	Fort Hood, TX	13496	5200	1-2Q	2348	3Q	3709	3Q	Cont.	Cont.	Cont.
CAMBER (Testing/Configuration Management)	C/CPAF	Fort Hood, TX	2624	750	1-2Q	500	1Q	2356	1Q	Cont.	Cont.	Cont.
CSC/MANTECH (Direct Labor)	C/CPFF	Fort Hood, TX						4310	1Q	Cont.	Cont.	Cont.
CSC (System Engineering)	C/CPAF	Fort Hood, TX/Fort Monmouth,NJ						2091	3Q	Cont.	Cont.	Cont.
Matrix Support	Various	Fort Hood, TX						275	1Q		555	
Subtotal:			16120	5950		2848		12741		Cont.	Cont.	Cont.

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												

Project Total Cost:			61922	19604		12967		16827		Cont.	Cont.	Cont.
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Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
C29

Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15																							
	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																				
SWBI+	SW Block I and I+																																																			
SWBII	SW Block II																																																			
Capability Set 9-10									Capability Set 9-10																																											
Capability Set 11-12																	Capability Set 11-12																																			
Capability Set 13-14																									Capability Set 13-14																											
Capability Set 15-16																																	Capability Set 15-16																			
PEO Test Events (Out-of-Cycle, Maint Updates, etc)	PEO Test Events (continuous)																																																			
--BC Marshall									BC Marshall																																											
--BC MacArthur																	BC MacArthur																																			
--BC Eisenhower																									BC Eisenhower																											
--BC Arnold																																	BC Arnold																			
--FBCB2 JCR 1.X									FBCB2 JCR 1.X																																											
--FBCB2 JCR 2.X																	FBCB2 2.X																																			
--JBCP 1.0																									JBCP 1.0																											
--WINT-T Inc 1b									WIN-T Inc 1b																																											

Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
C29

Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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
--WIN-T Inc 2					WIN-T Inc 2																											
--WIN-T Inc 3													WIN-T Inc 3																			
Data Products Testing	Data Products Testing (continuous)																															
FCS Integration & Support Testing	FCS Integration & Support Testing																															
CM	Configuration Management (continuous)																															
SE&I	Systems Engineering & Integration (continuous)																															

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
C29

<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>
SWBI+	1Q - 4Q	1Q - 4Q						
SWBII	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 3Q				
Capability Set 9-10		1Q - 4Q	1Q - 4Q					
Capability Set 11-12				1Q - 4Q	1Q - 4Q			
Capability Set 13-14						1Q - 4Q	1Q - 4Q	
Capability Set 15-16								1Q - 4Q
PEO Test Events (Out-of-Cycle, Maint Updates, etc)	1Q - 4Q							
--BC Marshall		2Q - 4Q						
--BC MacArthur			3Q - 4Q					
--BC Eisenhower					3Q - 4Q			
--BC Arnold							3Q - 4Q	
--FBCB2 JCR 1.X		2Q - 4Q	1Q - 3Q					
--FBCB2 JCR 2.X			3Q - 4Q	1Q				
--JBCP 1.0				3Q - 4Q	1Q - 4Q			
--WINT-T Inc 1b		1Q - 3Q						
--WIN-T Inc 2		2Q - 4Q						
--WIN-T Inc 3				4Q	1Q - 2Q			
Data Products Testing	1Q - 4Q							
FCS Integration & Support Testing	1Q - 4Q	1Q						
CM	1Q - 4Q							
SE&I	1Q - 4Q							

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY 5 - System Development and Demonstration	PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software			PROJECT C34	
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
C34 ARMY TAC C2 SYS ENG	13091	11538	31829	Continuing	Continuing

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 Army Battle Command Systems (ABCS) includes fielding of the ABCS Version 6.4 to the entire Army in four years, development of new capability releases aligned with the TRADOC-defined Commander's Needs and Battle Command Essential Capabilities, and integration of lifecycle processes with the G3 LandWarNet Capability Set construct. FY10 initiates Wireless Network After Next (WNaN)Technology Experimentation.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Continue Army Battle Command System (ABCS) Integrated Logistics Support	752	729	720
Continue ABCS Testing and Evaluation of all Battlefield Functional Area (BFA) fielded software	788	764	750
Continue ABCS Fielding/Scheduling	1034	980	3400
Continue ABCS information engineering	1040	1153	1300
Conduct and support system interoperability engineering	335	325	2030
Continue exploring state of the art technology insertion in support of the ABCS program	1729	1512	3000
Continue development and implementation of the ABCS information assurance	307	298	500
Continue System of Systems Development	2400	2613	5350
Continue ABCS System Engineering	3026	2840	
System of Systems Engineering and Integration evolution of the network			6220
TENIX	1680		
Small Business Innovative Research/Small Business Technology Transfer Programs		324	
Initiate Wireless Network after Next (WNaN)Technology Experimentation			8559
Total	13091	11538	31829

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604818A - Army Tactical Command & Control Hardware & Software

PROJECT

C34

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 management, testing, interoperability, support to fielding and sustainment to ensure an interoperable and affordable Army Tactical Command and Control Systems (ATCCS). Fiscal year FY10 will focus on "Systems of Systems" Engineering and integration for evolution of the network (Warfighter Information Network-Tactical (WIN-T) and Joint Tactical Radio Systems (JTRS)) and associated services (Unified Battle Command, Joint Battle Command - Platform (JBC-P), Net-Enabled Command Capability (NECC), Network Service Center (NSC); and the Wireless Network After Next (WNaN) Technology Experimentation) with increased emphasis on immediate Warfighter needs as well as leveraging emerging technologies.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT	
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software								C34	
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Northrop Grumman	C/CPIF	Fort Monmouth, NJ/Fort Hood, TX	14548	1700	1-2Q	1729	1-2Q				17977	17162
TBD	TBD	Aberdeen Proving Grounds, MD/Fort Monmouth, NJ/Fort Hood, TX						9500	2Q	Cont.	Cont.	Cont.
IDA	MIPR	Fort Monmouth, NJ	1724								1724	1724
CSC	C/CPAF	Fort Monmouth, NJ/Fort Hood, TX	42372	1500	1-2Q	1408	1-2Q			Cont.	Cont.	45385
TBD	TBD	Aberdeen Proving Grounds, MD/Fort Monmouth, NJ/Fort Hood, TX						8200	2Q	Cont.	Cont.	Cont.
MANTECH (Direct Labor)	C/CPFF	Fort Monmouth, NJ/Fort Hood, TX	6496								6496	6546
SYTEX	C/CPFF	Eatontown, NJ	330	340		350					1020	1020
TBD	TBD	Aberdeen Proving Grounds, MD/Fort Monmouth, NJ/Fort Hood, TX						2750	2Q	Cont.	Cont.	Cont.
CAMBER (Config Mgt/)	C/CPAF	Fort Hood, TX	1788								1788	855
ATSC	MIPR	Fort Leavenworth, KY	1850							Cont.	1850	1850
LOCKHEED MARTIN	C/CPAF	Eatontown, NJ	6674	618	1-2Q	604	1-2Q			Cont.	7896	7896
GTE (Labor and Equipment)	C/CPFF	Fort Hood, TX	2281							Cont.	2281	2281
Misc Contracts	C/CPAF	Fort Monmouth, NJ/Fort Hood, TX	5985	196						Cont.	6181	6181
Unixpros	C/CPAF	Eatontown, NJ	3711								3711	3711
ROBBINS-GIOIA	C/CPAF	Fort Monmouth, NJ/Fort Hood, TX	9642	160	1-2Q	165	1-2Q			Cont.	9967	9967

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software							C34		
MITRE	C/CPFF	Aberdeen Proving Grounds, MD/Ft Monmouth, NJ/Eatontown, NJ	49976	3992	1-2Q	4587	1-2Q	4320	1-2Q	Cont.	Cont.	Cont.
ITT	C/CPAF	Eatontown, NJ	1070							Cont.	1070	1070
MISCELLANEOUS SUPPORT	C/CPAF	Eatontown, NJ/Fort Hood, TX	2551	300						Cont.	2851	2851
BOOZ-ALLEN	C/CPAF	Eatontown, NJ	1950							Cont.	1950	1950
Subtotal:			152948	8806		8843		24770		Cont.	Cont.	Cont.
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
IN-HOUSE SUPPORT	MIPRs	Aberdeen Proving Grounds, MD/Fort Monmouth, NJ/Fort Hood, TX	8060	1630	1-2Q	1680	1-2Q	3100	1-2Q	Cont.	Cont.	Cont.
CECOM MATRIX	MIPRs	Fort Monmouth, NJ/Fort Hood, TX	7880	815		840		800	1-2Q	Cont.	Cont.	Cont.
OTHER GOVERNMENT SUPPORT	MIPRs	Fort Monmouth, NJ/Fort Hood, TX/Fort Belvoir, VA	3887	160		175		2200	1-2Q	Cont.	Cont.	Cont.
TENIX Support				1680							1680	1680
Subtotal:			19827	4285		2695		6100		Cont.	Cont.	Cont.
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
EPG	MIPR	Fort Huachuca, AZ	2881							2881	5762	

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT		
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software								C34		
TBD	TBD	Aberdee Proving Grounds, MD/Fort Monmouth, NJ						1Q	959			959	
Subtotal:			2881						959		2881	6721	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal:													
Project Total Cost:			175656	13091		11538		31829		Cont.	Cont.	Cont.	

Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
C34

Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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
Continue Army Battle Command (ABCS)/Unified Battle Command(UBC) Testing and Eval	[Redacted]																															
Continue ABCS/UBC Fielding/Scheduling	[Redacted]																															
ABCS SYSTEMS ENGINEERING & INTEGRATION TRANSITION TO FCS	[Redacted]																															
Systems Integration Lab	[Redacted]																															
Initiate Wireless Network After Next (WNaN) Technology Experimentation	[Redacted]																															

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE						PROJECT	
5 - System Development and Demonstration		0604818A - Army Tactical Command & Control Hardware & Software						C34	
<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>	
Continue Army Battle Command (ABCS)/Unified Battle Command(UBC) Testing and Eval	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Continue ABCS/UBC Fielding/Scheduling	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
ABCS SYSTEMS ENGINEERING & INTEGRATION TRANSITION TO FCS	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Systems Integration Lab			1Q - 4Q						
Initiate Wireless Network After Next (WNaN) Technology Experimentation			1Q - 4Q	1Q - 2Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software			PROJECT C39
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
C39 Tactical Operations Centers (TOCs)	13474			Continuing	Continuing

A. Mission Description and Budget Item Justification: The Command Post Systems and Integration (CPS&I) (formerly Tactical Operations Centers) program is currently supporting OIF/OEF by providing commanders and their staffs with digitized platforms and command information centers that support the operational needs of the current Heavy, Infantry, and Stryker Brigade Combat Teams, with direct applicability to the Future Force. Based on the approved Standardized Integrated Command Post System (SICPS) Capability Production Document (CPD), SICPS is a family of systems that consists of the Command Post Platform (CPP), Trailer Mounted Support System (TMSS), Command Center System (CCS), and Command Post Communications System (CPCS). SICPS provides standardized Command Post infrastructure allowing commanders and staffs to digitally plan, prepare, and execute operations through systematic integration of Army tactical communications systems, multiple Army Battle Command Systems (ABCS) and supporting systems into standard platforms. SICPS is an enabler that supports the capability needed to realize shared situational understanding by integrating various approved Army/Joint Command and Control (C2) communications and network systems in a collaborative environment to display the Common Operational Picture (COP) and enable integrated Battle Command capability. The Harbormaster Command and Control Center (HCCC) provide a command and control facility and capabilities to oversee the movement of vessel and cargo in a fixed port facility or during Joint Logistics Over-the-Shore (JLOTS) operations. The HCCC provides intra-theater sea Lines of Communications (LOC) and inland waterways command and control of Army watercraft. FY08 provides for design, development, and test of the HCCC system and Up-Armored Modularized CPP-Light. This is not a new start.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Design, development, and test of HCCC System	10374		
Develop, test and qualification of Up-Armored Modularized CPP-Light	3100		
Develop and test interoperability between Command Post Platforms and future WIN-T Increments			
Develop and test integration of UBC/FCS Technology into Command Post Platforms			
Design, develop and test/qualification of Track / Heavy Armored Command Post Platform			
Design, develop and test/qualification of Common Command Post Shelter System			
Total	13474		

<u>B. Other Program Funding Summary</u>	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
Other Procurement Army 2 - SSN: BZ9865 (TOCs)	513073	146811	29934	Continuing	Continuing
Other Procurement Army 2 - SSN: M11204 (HCCC)		17563	10962	Continuing	Continuing

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)**May 2009**

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604818A - Army Tactical Command & Control Hardware & Software

PROJECT

C39

Comment:

C. Acquisition Strategy The SICPS evolutionary acquisition strategy develops, tests, produces, trains, and fields Army Command Post systems including Command Post Platforms (CPPs) and Trailer Mounted Support Systems (TMSS) as outlined in the SICPS Capability Production Document (CPD). The CPD includes requirements for three CPP variants, the Rigid Wall Shelter (RWS), the Light, and the Track CPP. A competitive contract was awarded in August 2004 for CPP development and integration. To date, only the RWS CPP has been developed, tested, and qualified. SICPS TMSS/tents are procured using Commercial Off-the-Shelf (COTS), or modified COTS, non-development items. SICPS including the RWS CPP and TMSS achieved a Full Rate Production decision in May 07, which included Type Classification-Standard and Full Materiel Release. Continuing efforts include development and integration/test of Light and Track CPP variants, development/test of a Common Command Post Shelter system, and upgrades/improvements required to maintain interoperability between the Current Force and Future Force. The HCCC evolutionary acquisition strategy develops, tests, produces, trains, and fields HCCC systems as outlined in the HCCC Capability Production Document (CPD). A Low Rate Initial Production (LRIP) decision is planned for FY09 for the HCCC.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT	
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software								C39	
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
HCCC System	MIPR	OGAs		8218	3Q						8218	
Up-Armored Modularized CPP -Light	C/CPIF	NGMS		3100	4Q						3100	
WIN-T Interoperability	C/CPIF	TBD								Cont.	Cont.	
UBC / FCS Technology	C/CPIF	TBD								Cont.	Cont.	
Track / Heavy Armor CPP	C/CPIF	TBD										
Common Command Post Shelter System	C/CPIF	TBD								Cont.	Cont.	
Subtotal:				11318						Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
HCCC System	MIPR	Various Govt Test Agencies		1531							1531	
Up-Armored Modularized CPP-Light	MIPR	Various Govt Test Agencies										
WIN-T Interoperability	MIPR	Various Govt Test Agencies								Cont.	Cont.	

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software							PROJECT C39		
UBC / FCS Technology	MIPR	Various Govt Test Agencies								Cont.	Cont.	
Track / Heavy Armored CPP-Light	MIPR	Various Govt Test Agencies								Cont.	Cont.	
Common Command Post Shelter System	MIPR	Various Govt Test Agencies								Cont.	Cont.	
Subtotal:				1531						Cont.	Cont.	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration		CPS&I, Madison, AL		625						Cont.	Cont.	
Subtotal:				625						Cont.	Cont.	

Project Total Cost:				13474						Cont.	Cont.	
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Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
C39

Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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
Design, develop, and test of HCCC System																																
SICPS (RWS CPP/TMSS) Full Rate Production																																
Develop, test and qualification of Up-Armored Modularized CPP-Light																																
Develop and test interoperability between CPP and future WIN-T Increments																																
Develop and test integration of UBC/FCS Technology into Command Post Platforms																																
Design, develop and test/qualification of Track / Heavy Armored CPP																																
Design, develop and test/qualification of Common Command Post Shelter System																																

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE						PROJECT	
5 - System Development and Demonstration		0604818A - Army Tactical Command & Control Hardware & Software						C39	
<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>	
Design, develop, and test of HCCC System	3Q - 4Q	1Q - 4Q	1Q - 4Q						
SICPS (RWS CPP/TMSS) Full Rate Production	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	
Develop, test and qualification of Up-Armored Modularized CPP-Light	1Q - 4Q	1Q - 4Q	1Q - 4Q						
Develop and test interoperability between CPP and future WIN-T Increments			1Q - 4Q	1Q - 2Q					
Develop and test integration of UBC/FCS Technology into Command Post Platforms			1Q - 4Q	1Q - 4Q					
Design, develop and test/qualification of Track / Heavy Armored CPP			1Q - 4Q	1Q - 4Q					
Design, develop and test/qualification of Common Command Post Shelter System			1Q - 4Q	1Q - 4Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software			PROJECT JN1
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
JN1 JOINT NETWORK NODE (JNN) TESTING	15753		12792		28545

A. Mission Description and Budget Item Justification: As the emerging major component of the Army Bridge to Future Networks, Warfighter Information Network - Tactical (WIN-T) Increment 1, formally 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) Communications System. Increment 1: Networking at-the-Halt-the network is capable of passing unclassified and classified traffic levels, throughout its entire structure, from Home Station Operations center to the furthest forward Battalion Elements. Designed to meet modularity and rapid deployment mandate, the network is also intended to support Joint Communications Requirements and internet applications from Coalition partners and from approved Federal Agencies such as the Federal Emergency Management Agency and Department of Homeland Security.

FY 08: Funding was used to test the initial production deliveries from the contract awarded in Sep 07. Initial Operational Test (IOT) was successfully conducted in 1st quarter FY 09.

FY 10: Funding will be used for Operational Test of the 1b technical insertion to Increment 1a for Operational Test that will be conducted 1st quarter FY 11 in conjunction with Inc 2 Initial Operational Test and Evaluation (IOT&E).

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Operational Testing Event	15753		12792
Total	15753		12792

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

C. Acquisition Strategy Joint Network Node (JNN) Network had previously been acquired in substantial quantities as urgent Army directed procurement. The JNN program attained Milestone C on 14 May 2007. The Product Manager was given verbal approval to proceed, in addition to instruction to await an Acquisition Decision Memorandum (ADM) for the Warfighter Information Network - Tactical (WIN-T). The ADM, issued on 5 June 2007, directed the Army to restructure the WIN-T Major Defense Acquisition Program (MDAP) to absorb the former JNN program and directed a number of actions as the way ahead for the combined program. The WIN-T Acquisition Category (ACAT) 1D program now consists of four separately reporting Increments, with JNN re-designated as WIN-T Increment 1. RDT&E funding will be used to test the output of the production.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT	
5 - System Development and Demonstration			0604818A - Army Tactical Command & Control Hardware & Software								JN1	
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Increment 1a IOT - 1Q FY 09	T & M	ATEC		15753	3-4Q						15753	
Increment 1b OT - 1Q FY 11	T & M	ATEC						12792	3-4Q		12792	
Subtotal:				15753				12792			28545	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
Project Total Cost:				15753				12792			28545	

Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

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

PROJECT
JN1

Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	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
(1) Increment 1a IOT, (2) Increment 1b OT					▲ ₁ Increment 1a IOT								▲ ₂ Increment 1b OT																			

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY 5 - System Development and Demonstration		PE NUMBER AND TITLE 0604818A - Army Tactical Command & Control Hardware & Software					PROJECT JN1	
<u>Schedule Detail</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>	<u>FY 2014</u>	<u>FY 2015</u>
Increment 1a IOT		1Q						
Increment 1b OT				1Q				