

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2005

## BUDGET ACTIVITY

### 5 - System Development and Demonstration

## PE NUMBER AND TITLE

### 0604□1□A - Army Tactical Command & Control Hardware & Softwar

COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	101914	64811	66980	68873	49802	42888	10387	8510	Continuing	Continuing
323 COMMON HARDWARE SYSTEMS	6226	4543	4493	6650	6955	7236	0	0	0	54220
334 COMMON SOFTWARE	28938	20622	15792	16040	11925	14289	0	0	Continuing	0
C15 MOUNTED BATTLE COMMAND ON-THE-MOVE (MBCOTM)	0	0	9975	12210	11022	2190	775	0	Continuing	0
C29 CENTRALIZED TECHNICAL SUPPORT FACILITY (CTSF)	11165	11356	9702	10184	10681	9954	9612	8510	Continuing	0
C34 ARMY TAC C2 SYS ENG	27220	10296	16449	9336	9219	9219	0	0	Continuing	0
C39 TACTICAL OPERATIONS CENTERS (TOCS)	6260	10387	3048	4408	0	0	0	0	Continuing	0
C3A ARMY AIRBORNE COMMAND & CONTROL SYS (A2C2S)	22105	7607	7521	10045	0	0	0	0	Continuing	Continuing

**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.

**ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)****February 2005****BUDGET ACTIVITY****5 - System Development and Demonstration****PE NUMBER AND TITLE****0604□1□A - Army Tactical Command & Control Hardware  
& Softwar**

<b><u>B. Program Change Summary</u></b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>
Previous President's Budget (FY 2005)	68110	79660	59451
Current Budget (FY 2006/2007 PB)	64811	66980	68873
Total Adjustments	-3299	-12680	9422
Net of Program/Database Changes			
Congressional Program Reductions	-1458		
Congressional Rescissions			
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer	-1841		
Adjustments to Budget Years		-12680	9422

Change Summary Explanation: Funding - FY06: Funds (-12680) realigned to higher priority requirements.

FY07: Funds increase of +9422 is the result of the following:

- (C34) SE&I +6175: Plus up to fund System Engineering support
- (C3A) A2C2S +3473: Army PBD to integrate JTRS
- (C15) MBCOTM +12210: Army added funding for capability support
- (C29) CTSF -2277: Decrement to Field Engineering support
- (334) CS -10081: Decrement to Digital System Engineering support
- (323) CHS -78 : Decrement to Program Support

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2005

BUDGET ACTIVITY

**5 - System Development and Demonstration**

PE NUMBER AND TITLE

**0604□1□A - Army Tactical Command & Control  
Hardware & Softwar**

PROJECT

**323**

COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
323 COMMON HARDWARE SYSTEMS	6226	4543	4493	6650	6955	7236	0	0	0	54220

**A. Mission Description and Budget Item Justification:** CHS is the program through which the Army ensures standardization and common integration for the Army Battle Command Systems (ABCS) hardware. CHS provides 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 world-wide repair, maintenance and logistics support through contractor operated CHS Repair Centers (CRCs) and management of a comprehensive warranty program.

<b>Accomplishments/Planned Program</b>	FY 2004	FY 2005	FY 2006	FY 2007
Continue management of the acquisition and delivery of CHS equipment in support of customer requirements	6226	3743	3693	5797
Continue supporting customers testing efforts with CHS equipment	0	300	300	300
Continue CHS technology insertion	0	500	500	553
<b>Totals</b>	<b>6226</b>	<b>4543</b>	<b>4493</b>	<b>6650</b>

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

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 technolgy 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 2005				
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
5 - System Development and Demonstration					0604□1□A - Army Tactical Command & Control Hardware & Softwar					323			
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . GDC4S/CHS-3 Non-Recurring Engineering	C/FFP/IDIQ	Taunton, MA	12000	0		0		0		12000	Continue	0	
b . Technology Insertion	Various	Various	11685	500	1-3Q	500	1-3Q	553	1-3Q	Continue	Continue	0	
c . Systems Engineering	Various	Fort Monmouth, NJ	63887	2456		662		2581		Continue	69586	0	
d . In-house Government Support	MIPR	Fort Monmouth, NJ/Huntsville, AL	48699	3190	1-3Q	3031	1-3Q	3216	1-3Q	Continue	58136	0	
Subtotal:			136271	6146		4193		6350		Continue	Continue	0	
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . Not applicable			0	0		0		0		0	0	0	
Subtotal:			0	0		0		0		0	0	0	

ARMY RDT&E COST ANALYSIS(R3)										February 2005		
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604□1□A - Army Tactical Command & Control Hardware & Softwar					323		
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . CHS Test Activities	MIPR	Other Government Activities	900	300	3-4Q	300	3-4Q	300	3-4Q	Continue	1800	0
Subtotal:			900	300		300		300		Continue	1800	0
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0
Project Total Cost:			137171	6446		4493		6650		Continue	Continue	0

# Schedule Profile (R4 Exhibit)

February 2005

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604□1□A - Army Tactical Command & Control  
Hardware & Softwar

PROJECT

323

Event Name	FY 04				FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11			
	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																																
CHS-2 Contract Expires																																
CHS-2 Warranty Ends for H/W Procured Option Yrs 6-10																																
CHS-2 Warranty Extension If Required																																
CHS-3 V1 Hardware Deliveries																																
CHS-3 V2 Hardware Deliveries																																

Schedule Detail (R4a Exhibit)						February 2005				
BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604□1□A - Army Tactical Command & Control Hardware & Softwar				PROJECT 323			
<u>Schedule Detail</u>			FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
CHS Technology Insertion (continuous)			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
CHS-3 V1 deliveries			2-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
CHS-3 V2 deliveries				2-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2005

BUDGET ACTIVITY

**5 - System Development and Demonstration**

PE NUMBER AND TITLE

**0604□1□A - Army Tactical Command & Control  
Hardware & Softwar**

PROJECT

**334**

COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
334 COMMON SOFTWARE	28938	20622	15792	16040	11925	14289	0	0	Continuing	0

**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 modules and/or components for both the Army and Joint Services through the Common Operating Environment (COE). The CS project provides state-of-the-art software technologies and functionality that is used by numerous Army Battle Command Systems (ABCS) thereby eliminating the need for similar independent development and duplication of effort. The CS program is a cornerstone in the Army's digitization efforts that includes system integration of ABCS Information Services for the ABCS 6.4 architecture. The AIS centralizes the dissemination of battlefield data by allowing users to publish and subscribe data in a common format.

<b>Accomplishments/Planned Program</b>	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>
Continue the development, acquisition management and delivery of CS and Commercial-Off-The-Shelf (COTS) 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.	6841	7384	7605	7833
Continue execution of the Common Software technology and reuse program; supporting customer integration and testing; the exploration and evaluation of new software technologies in support of the overall CS program; and developing, upgrading and delivery of 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.	16003	13238	8187	8207
Information Dissemination Management - Tactical (IDM-T) effort. The IDM-T is one of the CS products that provides the Army's input into the Global Information Grid (GIG). This product is GIG compliant. The IDM-T will provide information management and transport services of critical situational awareness data for commanders and their staff.	2000	0	0	0
Integrate the Army's Advanced Warfare Environment's commercial 3D display technology development to support command and control modernization initiatives.	4094	0	0	0
<b>Totals</b>	<b>28938</b>	<b>20622</b>	<b>15792</b>	<b>16040</b>



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**5 - System Development and Demonstration**

PE NUMBER AND TITLE

**0604□1□A - Army Tactical Command & Control  
Hardware & Softwar**

PROJECT

**334**

## **B. Other Program Funding Summary**

FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
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Not applicable for Common Software Program	0	0	0	0	0	0	0	0	0
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**C. Acquisition Strategy:** The overall goal is to improve software development, integration and interoperability, and to lower life cycle costs by providing common software products to the Army, Joint Services, and Coalition efforts. The CS program is designed to increase both horizontal and vertical interoperability while reducing development, integration and testing resources. This strategy will be realized through defined Application Program Interfaces (APIs), standardized protocols, reusable software and standard commercial products. The CS program plans to partner with and provide products to the Future Combat System (FCS).

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>					PROJECT <b>334</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Matrix Support of CS Lab, Data Access	MIPR	CECOM, Fort Monmouth, NJ	1458	395	1-3Q	155	1-3Q	162	1-3Q	Continue	Continue	0
b . Engineering/Software Development	C, T&M	Various GSA Contractors / Various Locations	30812	11126	1-3Q	13880	1-3Q	14062	1-3Q	Continue	Continue	0
c . ABCS System Engineering & Integration	MIPR	PEO C3T, Fort Monmouth, NJ	210	0		0		0		0	210	0
d . 3D Display Technology	OTA	Concurrent Technology Corp., Johnstown, PA	9083	0		0		0		0	9083	0
e . Digital System Engineers		Various Contractors	7000	7400	1-2Q	0		0		0	14400	0
f . DISA Support for COE	MIPR		1486	0		0		0		0	1486	0
g . IDM-T Engineering Support	MIPR	GSA Contractors	2000	0		0		0		0	2000	0
Subtotal:			52049	18921		14035		14224		Continue	Continue	0

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604□1□A - Army Tactical Command & Control Hardware & Softwar					334		
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Support	In-house	PM GCC2, Ft. Monmouth, NJ	777	816	1-3Q	841	1-3Q	866	1-3Q	Continue	Continue	0
b . Automation Support	C, T&M	PKMM, Oceanport, NJ	499	165	1-2Q	171	1-2Q	179	1-2Q	Continue	Continue	0
Subtotal:			1276	981		1012		1045		Continue	Continue	0
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Not applicable			0	0		0		0		0	0	0
Subtotal:			0	0		0		0		0	0	0
Remarks: Development Testing (DT) is performed by development contractors and is covered under the Product Development section of this R-3. Operational Testing (OT) is funded by the applicable BFA application programs.												

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604□1□A - Army Tactical Command & Control Hardware & Softwar					334		
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Program Office Management	In-House	Fort Monmouth, NJ	2357	720	1-4Q	745	1-4Q	771	1-4Q	Continue	Continue	0
Subtotal:			2357	720		745		771		Continue	Continue	0
Project Total Cost:			55682	20622		15792		16040		Continue	Continue	0

Schedule Profile (R4 Exhibit)	
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February 2005

BUDGET ACTIVITY

PE NUMBER AND TITLE
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PROJECT

## 5 - System Development and Demonstration

## 06041A - Army Tactical Command & Control

334

[illegible]

Schedule Detail (R4a Exhibit)						February 2005				
BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604□1□A - Army Tactical Command & Control Hardware & Softwar				PROJECT 334			
<u>Schedule Detail</u>			FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Software development is continuous and performed in accordance with Army Software Blocking Policy.			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q		
Note: COE software product deliveries are made every twelve (12) months.										

<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R2a Exhibit)</b>							<b>February 2005</b>			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>				PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>				PROJECT <b>C15</b>		
COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
C15 MOUNTED BATTLE COMMAND ON-THE-MOVE (MBCOTM)	0	0	9975	12210	11022	2190	775	0	Continuing	0
<p><b>A. Mission Description and Budget Item Justification:</b> This project funds the development of the Mounted Battle Command on the Move System. Mounted Battle Command on the Move (MBCOTM) provides a battle command platform for maneuver commanders for echelons from Calvary Squadron through Unit of Employment (UEy). The focus of MBCOTM is to facilitate commander execution centric operations versus command post centric operations. MBCOTM provides for battle command by providing a commander situational awareness in the form of a digital common operational picture enabling a commander to maintain situational understanding while moving and 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 radio and Wideband Gapfiller system upgrade. Future improvements will include addition of secure wireless Local Area Network, Land Warrior, and Unmanned Aerial Vehicle feed.</p>										
<b>Accomplishments/Planned Program</b>							FY 2004	FY 2005	FY 2006	FY 2007
System Development and Test/Evaluation BLK 0							0	0	2500	5000
Prototype Build							0	0	975	3500
Log Development							0	0	3000	1710
Program Spt (MS B, MS C)							0	0	3500	2000
Totals							0	0	9975	12210

<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R2a Exhibit)</b>								<b>February 2005</b>		
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>				PROJECT <b>C15</b>	
<b><u>B. Other Program Funding Summary</u></b>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
Mounted Battle Command on the Move MBCOTM (BZ9970)	0	0	870	7982	76172	47676	28248	12946	0	173894
<b><u>C. Acquisition Strategy:</u></b> The government is developing the prototype MBCOTM and will do a full and open competition for production.										



ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604□1□A - Army Tactical Command & Control Hardware & Softwar					C15		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . System and Development of Block 0	TBD	TBD	0	0		9975		12210		0	22185	0
Subtotal:			0	0		9975		12210		0	22185	0
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0

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BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604□1□A - Army Tactical Command & Control Hardware & Softwar					PROJECT C15		
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			0	0		0		0		0	0	0
Subtotal:												
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			0	0		0		0		0	0	0
Subtotal:												
Project Total Cost:			0	0		9975		12210		0	22185	0

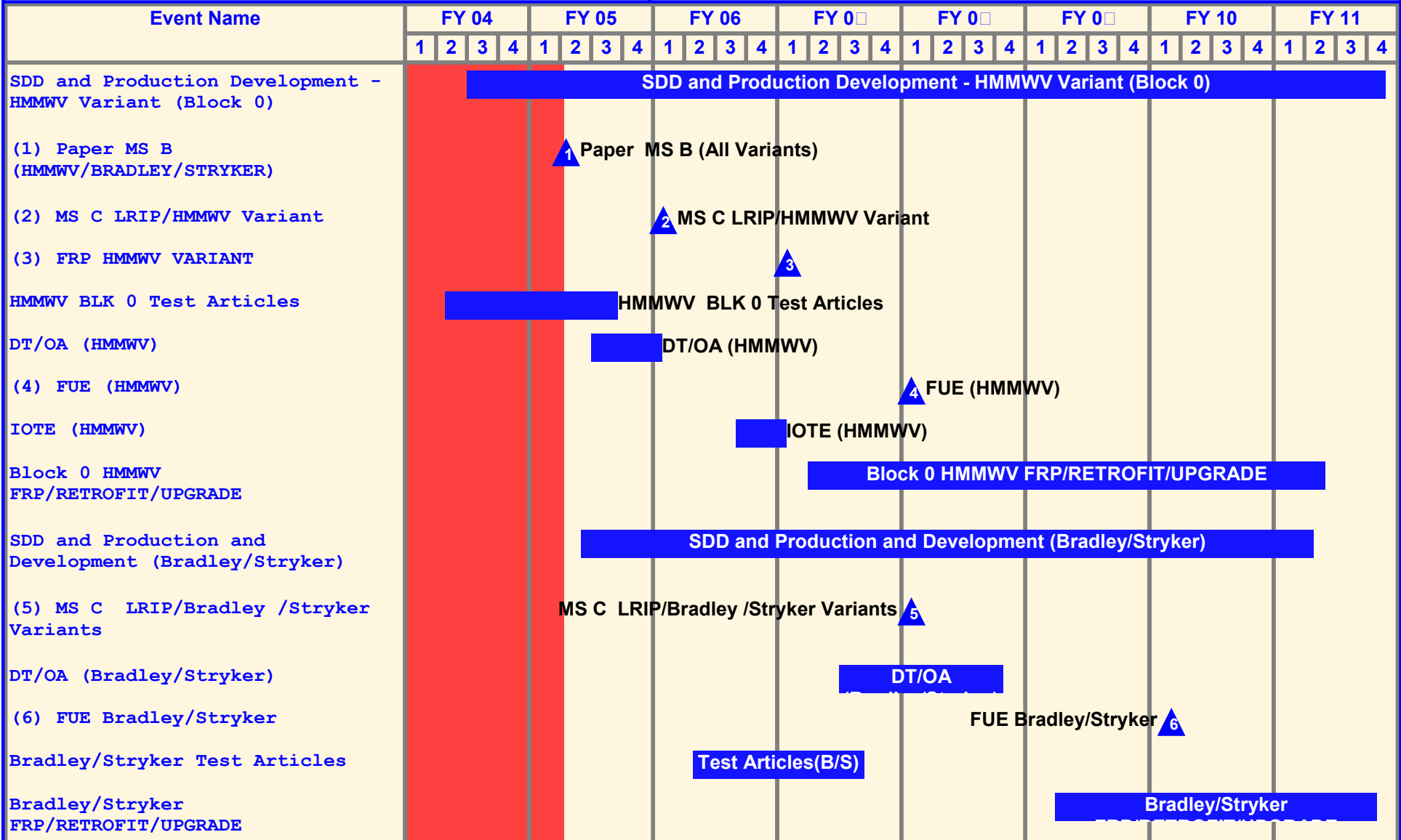
# Schedule Profile (R4 Exhibit)

February 2005

BUDGET ACTIVITY  
5 - System Development and Demonstration

PE NUMBER AND TITLE  
0604□1□A - Army Tactical Command & Control  
Hardware & Softwar

PROJECT  
C15



Schedule Detail (R4a Exhibit)						February 2005		
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>				PE NUMBER AND TITLE <b>0604 □ 1 □ A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>			PROJECT <b>C15</b>	
<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
SDD/Development/Production for HMMWV	3-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Paper MS B		2Q						
MS CLRIP/HMMWV Variant			1Q					
FRP HMMWV				1Q				
HMMWV Block 0 Test Articles	2-4Q	1-3Q						
DT/OA (HMMWV)		2-4Q	1Q					
FUE (HMMWV)					1Q			
IOTE (HMMWV)			3-4Q	1Q				
Block 0 (HMMWV) FRP/RETROFIT/UPGRADE				2-4Q	1-4Q	1-4Q	1-4Q	1-2Q
SDD/Development/PProduction for Bradley/Stryker		2-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1Q
MS C and LRIP for Bradley/Stryker					1Q			
DT/OA (Bradley/Stryker)				3-4Q	1-4Q			
FUE (Bradley Stryker)							1Q	
Bradley/Strker Test Articles			2-4Q	1-3Q				
Bradley/Stryker FRP/RETROFIT/UPGRADE						2-4Q	1-4Q	1-4Q

<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R2a Exhibit)</b>	<b>February 2005</b>
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BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>	PE NUMBER AND TITLE <b>0604 □ 1 □ A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>	PROJECT <b>C2 □</b>
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COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
C29 CENTRALIZED TECHNICAL SUPPORT FACILITY (CTSF)	11165	11356	9702	10184	10681	9954	9612	8510	Continuing	0

**A. Mission Description and Budget Item Justification:** Project DC29 - Centralized Technical Support Facility: The Central Technical Support Facility (CTSF) is located in Fort Hood, Texas. The CTSF 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 CTSF 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 CTSF 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.

<u>Accomplishments/Planned Program</u>	FY 2004	FY 2005	FY 2006	FY 2007
Continue test planning/procedures/execution/reporting	1796	1739	1674	1927
Continue software engineering.	2032	2086	1741	1791
Provide infrastructure (Facilities, upgrades, additions).	1428	1440	1202	1236
Continue Digital System Engineering	1322	1304	1089	1120
Continue management operations.	1310	1322	1104	1135
Provide equipment for instrumentation, simulation/stimulation, software evaluation and development tools.	900	905	755	777
Continue configuration management.	806	826	689	709
Provide networks connections to include DISN, SIPRNET, NIPRNET, GUARDNET.	308	315	263	270
Provide logistics support.	227	233	194	200
Provide DA Mandated Intra-Army Digital Certification test and validation.	915	1186	991	1019
Small Business Innovative Research	85	0	0	0
Small Business Technology Transfer Programs	36	0	0	0
<b>Totals</b>	<b>11165</b>	<b>11356</b>	<b>9702</b>	<b>10184</b>

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)		February 2005
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>	PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>	
PROJECT <b>C2□</b>		
<p><b><u>B. Other Program Funding Summary:</u></b> Not applicable for this item.</p> <p><b><u>C. Acquisition Strategy:</u></b> This project provides the technical and programmatic disciplines required for systems engineering and integration, experimentation, acquisition 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.</p>		

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>					PROJECT <b>C2□</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . MANTECH (Direct Labor)	C/CPFF	Fort Hood, TX	4921	2424	1Q	2246	1Q	2515	1Q	Continue	12106	Continue
b . COMPUTER SCIENCE CORP (System Engineering)	C/CPAF	Fort Hood, TX/Fort Monmouth, NJ	2344	1214	1Q	1013	1Q	1042	1Q	Continue	5613	Continue
c . MITRE Corp (System Engineering)	C/CPFF	Fort Hood, TX/Eatontown, NJ	2116	1104	1Q	921	1Q	948	1Q	Continue	5089	Continue
d . CAMBER (Config Mgt/)	C/CPAF	Fort Hood, TX	1200	600	1Q	501	1Q	515	1Q	Continue	2816	Continue
e . Northrop Grumman (Field Engineering)	C/CPIF	Fort Hood, TX	1953	1011	1Q	844	1Q	868	1Q	Continue	4676	Continue
f . NICHOLS (Logistics Support)	C/CPAF	Fort Hood, TX	1521	790	1Q	659	1Q	678	1Q	Continue	3648	Continue
g . ILEX (Field Engineering)	C/CPAF	Fort Hood, TX	763	395	1Q	330	1Q	339	1Q	Continue	1827	Continue
h . ROBBINS- GIOIA (Data Base Management)	C/CPAF	Fort Hood, TX/Fort Monmouth, NJ	607	314	1Q	262	1Q	270	1Q	Continue	1453	Continue
i . GTE	C/CPFF	Fort Hood, TX	468	243	1Q	203	1Q	209	1Q	Continue	1123	Continue
j . EWA	C/CPAF	Fort Hood, TX	283	146	1Q	122	1Q	125	1Q	Continue	676	Continue

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604□1□A - Army Tactical Command & Control Hardware & Softwar					C2□		
I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			16176	8241		7101		7509		Continue	39027	Continue
Subtotal:												
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . CECOM Matrix	MIPRs	Fort Hood, TX/Fort Monmouth, NJ	145	0		0		0		Continue	Continue	Continue
b . In-House Support	MIPRs	Fort Hood, TX	273	159	1Q	133	1Q	137	1Q	Continue	702	Continue
c . Other Government Support	MIPRs	Fort Hood, TX	83	55	1Q	46	1Q	48	1Q	Continue	232	Continue
Subtotal:			501	214		179		185		Continue	Continue	Continue



ARMY RDT&E COST ANALYSIS(R3)									February 2005				
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604□1□A - Army Tactical Command & Control Hardware & Softwar					PROJECT C2□			
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . ELECTRONIC PROVING GROUNDS (EPG)	MIPR		4670	2426	1-2Q	2025	1-2Q	2082	1-2Q	Continue	11203	Continue	
b . CAMBER (Testing)	CPAF	Fort Hood, TX	875	475	1Q	397	1-2Q	408	1-2Q	Continue	2155	Continue	
Subtotal:			5545	2901		2422		2490		Continue	13358	Continue	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . Not applicable			0	0		0		0		0	0	0	
Subtotal:			0	0		0		0		0	0	0	
Project Total Cost:			22222	11356		9702		10184		Continue	Continue	Continue	

Schedule Detail (R4a Exhibit)							February 2005	
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>				PE NUMBER AND TITLE <b>0604 □ 1 □ A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>			PROJECT <b>C2 □</b>	
<b><u>Schedule Detail</u></b>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Army Battle Command System (ABCS) 6.3 Test/Fixes/Integration								
ABCS 6.4 System of System (SoS) Integration	3Q							
Operation Iraqi Freedom (OIF)	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q		
ABCS 6.4 Test Window	2-4Q	1Q						
Operation Enduring Freedom (OEF)		3-4Q	1-4Q	1-4Q	1-4Q	1-4Q		
I Corps Warfighter		1Q						
Prairie Warrior 05		3Q						
III Corps Warfighter			1Q					
Prairie Warrior			3Q	3Q	3Q	3Q		
Ulchie Focus Lens (UFL)			4Q	4Q	4Q	4Q		
Certification Software Blocking		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q		

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2005

BUDGET ACTIVITY

**5 - System Development and Demonstration**

PE NUMBER AND TITLE

**0604□1□A - Army Tactical Command & Control  
Hardware & Softwar**

PROJECT

**C34**

COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
C34 ARMY TAC C2 SYS ENG	27220	10296	16449	9336	9219	9219	0	0	Continuing	0

**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".

<b>Accomplishments/Planned Program</b>	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>
Continue Army Battle Command System (ABCS) Integrated Logistics Support	482	187	382	213
Continue ABCS Testing and Evaluation of all Battlefield Functional Area (BFA) fielded software	1210	477	803	447
Continue ABCS Fielding/Scheduling	2212	936	1410	785
Continue ABCS Integrated Training Support	2177	840	0	0
Continue ABCS information engineering	2247	1126	2443	1383
Conduct and support system interoperability engineering	907	346	571	318
Continue exploring state of the art technology insertion in support of the ABCS program	472	180	373	208
Continue development and implementation of the ABCS information assurance	1080	452	525	292
Continue ABCS System Engineering	8040	2738	5082	2987
Continue System of Systems Development	7630	3014	4860	2703
Small Business Innovative Research/Small Business Technology Transfer Programs	681	0	0	0
Small Business Technology Transfer Programs	82	0	0	0
<b>Totals</b>	<b>27220</b>	<b>10296</b>	<b>16449</b>	<b>9336</b>

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)		February 2005
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>	PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>	PROJECT <b>C34</b>
<p><b><u>B. Other Program Funding Summary:</u></b> Not applicable for this item.</p> <p><b><u>C. Acquisition Strategy:</u></b> 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.</p>		

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>					PROJECT <b>C34</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Northrop Grumman	C/CPIF	Fort Monmouth, NJ/Fort Hood, TX	9463	565	1Q	595	1Q	692	1Q	Continue	11315	Continue
b . CSC, NICHOLS	C/CPAF	Fort Monmouth, NJ/Fort Hood, TX	31283	1251	1Q	4250	1Q	1094		Continue	37878	Continue
c . MITRE	C/CPFF	Ft Monmouth, NJ/Eatontown, NJ	27425	5714	1Q	7517	1Q	4255	1Q	Continue	44911	Continue
d . MANTECH (Direct Labor)	C/CPFF	Fort Monmouth, NJ/Fort Hood, TX	6496	0		0		0		0	6496	6546
e . CAMBER (Config Mgt/)	C/CPAF	Fort Hood, TX	1788	0		0		0		0	1788	855
f . ROBBINS-GIOIA	C/CPAF	Fort Monmouth, NJ/Fort Hood, TX	4972	540	1Q	1620	1Q	890	1Q	Continue	8022	Continue
g . LOCKHEED MARTIN	C/CPAF	Eatontown, NJ	6034	0		0		0	1Q	Continue	6034	Continue
h . GTE (Labor and Equipment)	C/CPFF	Fort Hood, TX	2281	0		0		0	1Q	Continue	2281	Continue
i . Misc Contracts	C/CPAF	Fort Monmouth, NJ/Fort Hood, TX	5703	185	1-2Q	278	1Q	90	1-2Q	Continue	6256	Continue
j . Unixpros	C/CPAF	Eatontown, NJ	3711	0		0		0		0	3711	3711

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>					PROJECT <b>C34</b>		
I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
k . ATSC	MIPR	Fort Leavenworth, KY	1850	0	1Q	0		0		Continue	1850	Continue
l . IDA	MIPR	Fort Monmouth, NJ	1724	0	1Q	0		0		Continue	1724	Continue
m . ITT	C/CPAF	Eatontown, NJ	1070	0		0		0		Continue	Continue	Continue
n . BOOZ-ALLEN	C/CPAF	Eatontown, NJ	1950	0		0		0	1Q	Continue	1950	Continue
o . MISCELLANEOUS SUPPORT	C/CPAF	Eatontown, NJ/Fort Hood, TX	1521	464	1-2Q	525	1-2Q	566	1-2Q	Continue	3076	Continue
Subtotal:			107271	8719		14785		7587		Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>					PROJECT <b>C34</b>		
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . IN-HOUSE SUPPORT	MIPRs	Fort Monmouth, NJ/Fort Hood, TX	5727	335	1Q	352	1Q	370	1Q	Continue	6784	Continue
b . CECOM MATRIX	MIPRs	Fort Monmouth, NJ/Fort Hood, TX	4045	982	1Q	1031	1Q	1083	1Q	Continue	7141	Continue
c . OTHER GOVERNMENT SUPPORT	MIPRs	Fort Monmouth, NJ/Fort Hood, TX/Fort Belvoir, VA	3339	130	1Q	137	1Q	144	1Q	Continue	3750	Continue
Subtotal:			13111	1447		1520		1597		Continue	17675	Continue
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . EPG	MIPR	Fort Huachuca, AZ	2463	130	1Q	144	1Q	152	1Q	Continue	2889	0
Subtotal:			2463	130		144		152		Continue	2889	0

ARMY RDT&E COST ANALYSIS(R3)										February 2005					
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604□1□A - Army Tactical Command & Control Hardware & Softwar					PROJECT C34					
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract			
a . SBIR/STTR	Various		792	0		0		0		0	792	0			
Subtotal:			792	0		0		0		0	792	0			
Project Total Cost:						123637	10296		16449		9336		Continue	Continue	Continue



## Schedule Detail (R4a Exhibit)

**February 2005**

BUDGET ACTIVITY

**5 - System Development and Demonstration**

PE NUMBER AND TITLE

**0604 □ 1 □ A - Army Tactical Command & Control  
Hardware & Softwar**

PROJECT

**C34**

<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
ABCS 6.3.X	1Q							
NATIONAL TRAINING CENTER (NTC) ROTATIONS	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q		
ABCS 6.4 SOFTWARE DEVELOPMENT and TESTING	1-4Q	1-2Q						
SBCT-2 FIELDING	1-3Q							
SBCT-3 FIELDING	1-4Q	1-3Q						
SBCT - 4 FIELDING	4Q	1-4Q	1-3Q					
SBCT-5 FIELDING		4Q	1-4Q	1-3Q				
SBCT-6 FIELDING			4Q	1-4Q	1-3Q			
FUTURE OPERATIONAL ARCHITECHTURE (OA)/SYSTEM ARCHITECTURE (SA)					1-4Q	1-4Q		
ABCS SYSTEMS ENGINEERING & INTEGRATION TRANSITION TO FCS					1-4Q	1-4Q		
FIELDING OF ABCS 6.4 TO ARMY	4Q	1-4Q	1-4Q	1-4Q	1Q			

<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R2a Exhibit)</b>							<b>February 2005</b>			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>				PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>				PROJECT <b>C3□</b>		
COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
C39      TACTICAL OPERATIONS CENTERS (TOCS)	6260	10387	3048	4408	0	0	0	0	Continuing	0
<p><b>A. Mission Description and Budget Item Justification:</b> The Tactical Operations Center (TOC) program provides commanders and their staffs with digitized platforms and command information centers, where courses of action become plans, plans become orders and battle tracking occurs. Based on the approved Operational Requirements Document (ORD), a new start TOC program consisting of Command Post Platforms (CPPs) with standardized shelters, installation kits, large screen displays, environmentally-controlled tents and trailer-mounted support systems, will be developed and fielded to future units. The CPPs will integrate Army Battle Command Systems (ABCS), communications equipment, intercoms, and local area networks into a standard Army platform. CPPs are digitized, tactically mobile, and fully integrated using military off-the-shelf, commercial off-the-shelf, non-developmental items, and emerging technologies. Network centric TOCs support joint interoperability, ensuring that information superiority and force synchronization are gained on the tactical and operational battlefield. Fielded TOCs include Current Force TOCs for 4ID and 1CD and Stryker Brigade Combat Teams (SBCT 1-3). Currently, the TOC program is providing OEF/OIF support to four units including the Coalition Forces Land Component Command (CFLCC), Coalition Joint Task Force 7, 1CD, and SBCT-2. TOCs/CPPs provide the command post migration path to Future Combat Systems (FCS). FY05 funding provides design, engineering and testing of Rigid Wall Shelter (RWS) CPP and Command Center System (CCS), SICPS family of tents, and supports the integration of TOCs for the Current Force and STRYKER Brigade Combat Teams (SBCTs). FY06 funding completes design, engineering and testing of RWS CPP and CCS, and SICPS family of tents. FY07 funding provides incorporation of engineering changes resulting from IOT&amp;E and begins incorporation of Future Combat System technology spiraled forward.</p>										
<b>Accomplishments/Planned Program</b>						FY 2004	FY 2005	FY 2006	FY 2007	
Design, engineering and test of Stryker Brigade Combat Team TOCs						6260	800	0	0	
Design, engineering and testing of Command Post Platforms (CPPs)						0	7013	2195	3324	
Government Test Support						0	1476	600	826	
In-house Government Support						0	1098	253	258	
<b>Totals</b>						6260	10387	3048	4408	

# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2005

BUDGET ACTIVITY

**5 - System Development and Demonstration**

PE NUMBER AND TITLE

**0604□1□A - Army Tactical Command & Control  
Hardware & Softwar**

PROJECT

**C3□**

## **B. Other Program Funding Summary**

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
Other Procurement Army 2 - SSN: BZ9865	72026	49677	58339	48136	55591	54833	0	0	Continuing	Continuing

**C. Acquisition Strategy:** The TOC evolutionary acquisition strategy relies on non-developmental items (NDI), Commercial Off-the-Shelf (COTS), and Government-furnished equipment (GFE) to design, integrate, assemble, test, train, and field Tactical Operations Centers (TOCs) and Command Post Platforms (CPPs). A contract was awarded in August 2004, using full and open competition to design, develop and test CPPs Future Force TOCs.

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>					PROJECT <b>C3□</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Current Force TOCs	C/CPFF	GDDS (Huntsville, AL)	10567	800		0		0		Continue	11367	Continue
b . Current Force TOCs			0	0		0		0		0	0	0
c . SBCTs 1,2 & 3	C/CPIF	NGMS (Huntsville, AL)	8745	0		0		0		0	8745	Continue
d . SBCTs 4	C/CPFF	PIF/JVIS	682	0		0		0		0	682	Continue
e . Command Post Platforms	C/CPIF	NGMS (Huntsville, AL)	365	7013	1Q	2195	1Q	3324	1Q	Continue	12897	Continue
f . In-House and Government Support		Various	1488	1098	1-2Q	253	1-2Q	258	1-2Q	0	3097	0
g . TOC 3D Survivable Carrier			4100	0		0		0		0	4100	0
Subtotal:			25947	8911		2448		3582		Continue	40888	Continue

ARMY RDT&E COST ANALYSIS(R3)									February 2005				
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT			
5 - System Development and Demonstration					0604□1□A - Army Tactical Command & Control Hardware & Softwar					C3□			
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
			0	0		0		0		0	0	0	
Subtotal:													
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
a . Government Test Support		various	110	1476	1-2Q	600	1-2Q	826	1-2Q	0	3012	0	
			110	1476		600		826		0	3012	0	
Subtotal:													
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
			0	0		0		0		0	0	0	
Subtotal:													
Project Total Cost:			26057	10387		3048		4408		Continue	43900	Continue	

# Schedule Profile (R4 Exhibit)

February 2005

BUDGET ACTIVITY

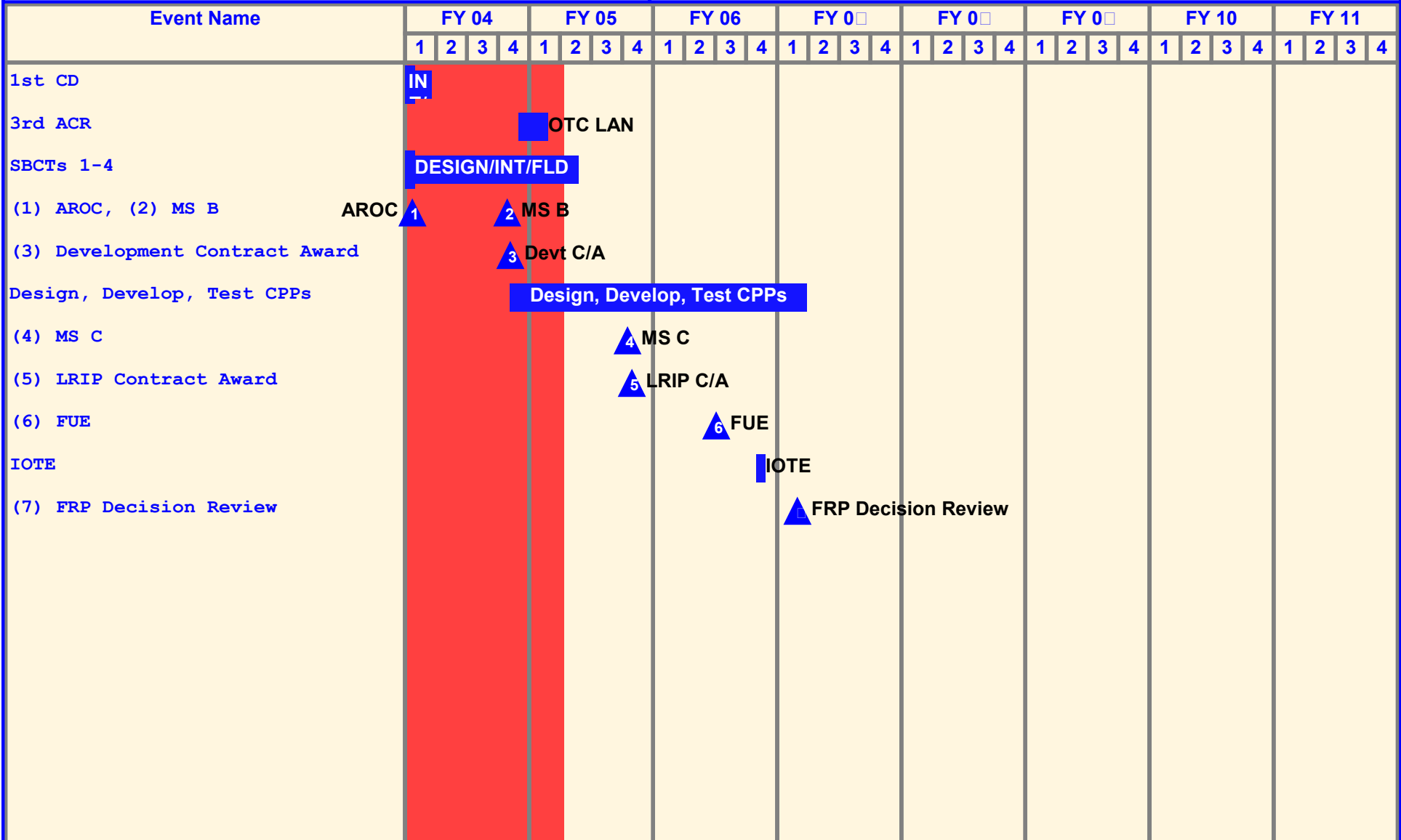
5 - System Development and Demonstration

PE NUMBER AND TITLE

0604□1□A - Army Tactical Command & Control  
Hardware & Softwar

PROJECT

C3□



## Schedule Detail (R4a Exhibit)

February 2005

BUDGET ACTIVITY

**5 - System Development and Demonstration**

PE NUMBER AND TITLE

**0604□1□A - Army Tactical Command & Control  
Hardware & Softwar**

PROJECT

**C3□**

<u>Schedule Detail</u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
SBCTs Design/Int /Field	1-4Q	1-2Q						
AROC	1Q							
Milestone B	4Q							
Development Contract Award	4Q							
Design, Develop, Test CPPs		1-4Q	1-4Q	1Q				
Milestone C		4Q						
LRIP Contract Award		4Q						
First Unit Equipped			3Q					
Initial Operational Test & Evaluation			4Q					
Full Rate Production Decision Review				1Q				

<b>ARMY RDT&amp;E BUDGET ITEM JUSTIFICATION (R2a Exhibit)</b>							<b>February 2005</b>			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>				PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>				PROJECT <b>C3A</b>		
COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
C3A ARMY AIRBORNE COMMAND & CONTROL SYS (A2C2S)	22105	7607	7521	10045	0	0	0	0	Continuing	Continuing
<p><b>A. Mission Description and Budget Item Justification:</b> This project funds the development of an Airborne Battle Command On The Move System required to horizontally and vertically integrate a linear and non-linear battlefield. Tasks in this project support research efforts in the engineering and manufacturing development phase of this system. The Army Airborne Command and Control System (A2C2S) is an Army Airborne Battle Command acquisition program for a system supporting the unit of action, unit of employment, and Brigade Combat Teams. The A2C2S enables Commanders and their staffs, to traverse the battle space rapidly - maintaining situational awareness of all battlefield systems - and maintaining communications throughout the decision continuum. Using Battle Command Software and line-of sight and non-line-of sight voice and data communications the A2C2S provides information superiority through a common operational picture. In addition, A2C2S is to the airborne first-responder for Homeland Security and disaster relief by providing a robust communications platform for emergency response coordinators of air and ground operations. It will support initial and remote scene operations center capabilities, convoy operations, and disaster coordination between state, federal, civilian and military assets. This system is critical to enhance the Battle Command Group's ability to effectively perform combat unit operations and serve as a force multiplier in the Future Force. A2C2S supports the Chief's Vision and the modularity concept of the Army Over Time.</p>										
<b>Accomplishments/Planned Program</b>							FY 2004	FY 2005	FY 2006	FY 2007
Continue System Development and Evaluation BLK I							22105	3107	3321	4945
Development of Supportability Package (Log and Training Products)							0	0	0	1250
Continue "Good Enough" Integration (ABCS 6.4 and NLOS SATCOM)							0	3000	2800	0
JTRS Design Integration							0	0	0	0
Continue AWQ, Development and Operational Test							0	1500	1400	700
MS C Prep, S/W Integration and Demonstrations							0	0	0	0
FCS C2 Design							0	0	0	2500
ECS Integration Design							0	0	0	650
<b>Totals</b>							22105	7607	7521	10045



# ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2005

BUDGET ACTIVITY

**5 - System Development and Demonstration**

PE NUMBER AND TITLE

**0604□1□A - Army Tactical Command & Control  
Hardware & Softwar**

PROJECT

**C3A**

## B. Other Program Funding Summary

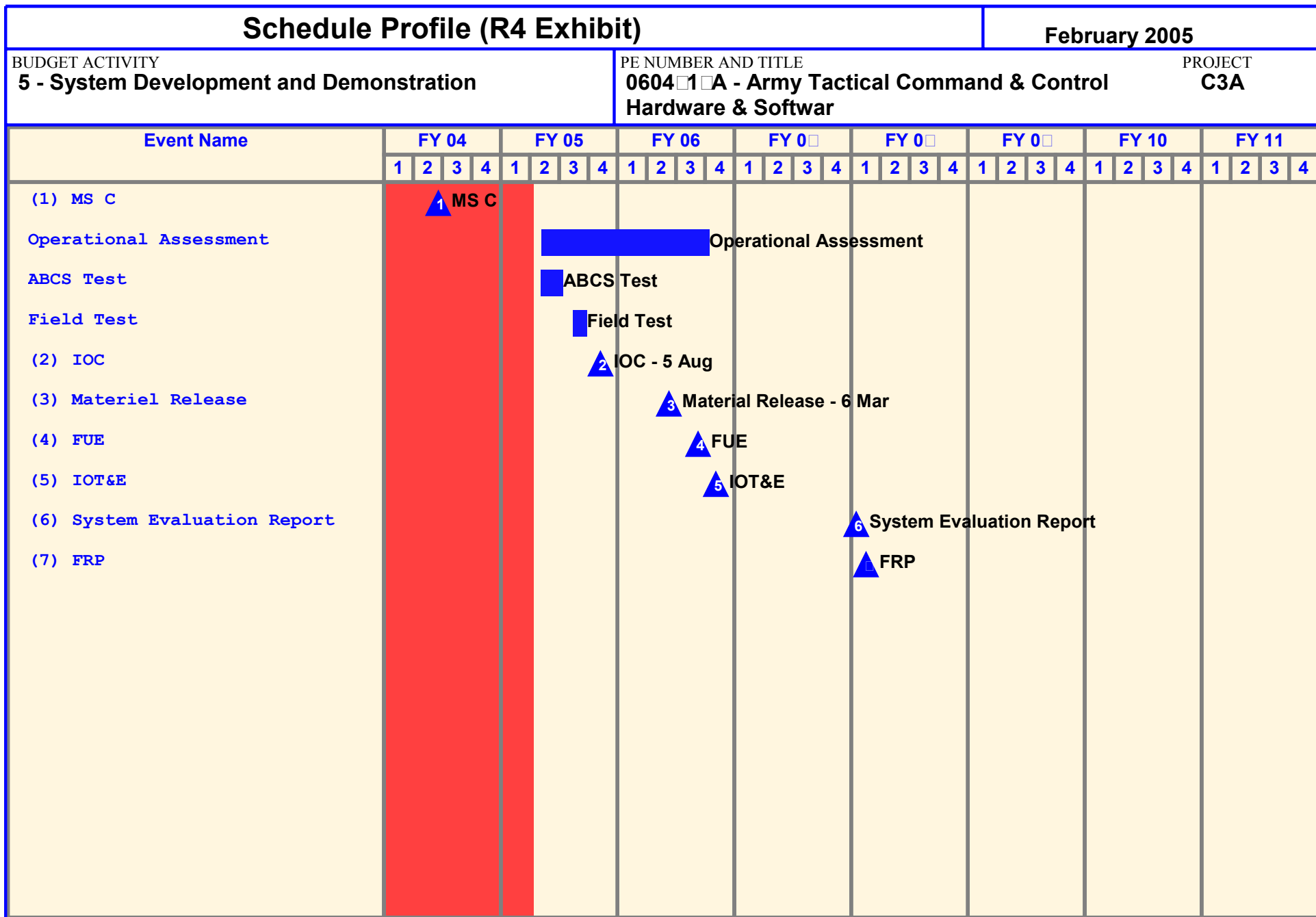
FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
Airborne Command and Control SSN AA0710	26378	27496	28055	29623	32837	40009	9302	0	Continuing

C. Acquisition Strategy: A competitive cost type contract was awarded for A2C2S development in August 2001 to Raytheon. Raytheon produced three (3) prototype systems in FY03 in support of OEF/OIF.

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>					PROJECT <b>C3A</b>		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . System Dev and Eval BLK I	CPIF	Raytheon Huntsville, and TBD	8672	3851	1Q	4165	1Q	6973	1Q	Continue	23661	0
b . Prototype Integration (Systems 3 - 7)	CPIF	Raytheon	9497	0		0		0		Continue	9497	0
c . Software Integration/Development	CPIF	Raytheon Huntsville	2618	0	1Q	0		0		Continue	2618	0
d . Systems and Engineering Logistics Support	Various	Raytheon /AMCOM	12599	1285	1Q	500	1Q	500	1Q	Continue	14884	0
e . ABCS SE&I	MIPR	Ft. Monmouth, NJ	195	0		0		0		0	195	0
f . Inhouse/Government	Various	Various	0	560	1Q	1000	1Q	1400	1Q	0	2960	0
Subtotal:			33581	5696		5665		8873		Continue	53815	0

ARMY RDT&E COST ANALYSIS(R3)									February 2005			
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>					PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>					PROJECT <b>C3A</b>		
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Support of System 1 and 2 deployed to 4th ID and 101st ABN	Various	Various	3759	0	1Q	0		0		0	3759	0
Subtotal:			3759	0		0		0		0	3759	0
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Development Test & Evaluation and AWQ	MIPR/CPIF	ATEC/RTTC/AATD/A ED/Raytheon	11903	1502	1Q	406	1Q	702	1Q	Continue	14513	0
b . Operational Test	Various	Various	1883	0	1Q	1000	1Q	0		Continue	2883	0
Subtotal:			13786	1502		1406		702		Continue	17396	0

ARMY RDT&E COST ANALYSIS(R3)										February 2005				
BUDGET ACTIVITY 5 - System Development and Demonstration					PE NUMBER AND TITLE 0604□1□A - Army Tactical Command & Control Hardware & Softwar					PROJECT C3A				
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract		
a . In-House/Gov't			5219	409	1Q	450	1Q	470	1Q	0	6548	0		
Subtotal:			5219	409		450		470		0	6548	0		
Project Total Cost:						56345	7607		7521		10045	Continue	81518	0



Schedule Detail (R4a Exhibit)							February 2005	
BUDGET ACTIVITY <b>5 - System Development and Demonstration</b>				PE NUMBER AND TITLE <b>0604□1□A - Army Tactical Command &amp; Control Hardware &amp; Softwar</b>				PROJECT <b>C3A</b>
<u><b>Schedule Detail</b></u>	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Continue System Development and Evaluation BLK I and P3I	1-4Q	1-4Q	1-4Q	1-4Q				
Continue/Complete A2C2S Prototype Fabrication and Platform Integration Systems	1-4Q							
Continue System Engineering, Software Integration and Logistics Planning for A2C2S	1-4Q	1-4Q	1-4Q	1-4Q				
Continue Development Testing	1-4Q	1-4Q	1-4Q	1-4Q				
Operational Testing	1-4Q	1-4Q	1-4Q					