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

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE |
|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** |

| COST (In Thousands) | | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Program Element (PE) Cost | | 97970 | 101166 | 69110 | 79660 | 59451 | 229877 | 288721 | Continuing | Continuing |
| 323 | COMMON HARDWARE SYSTEMS | 18117 | 6453 | 6446 | 6514 | 6786 | 7078 | 7354 | 0 | 85646 |
| 334 | COMMON SOFTWARE | 14201 | 25533 | 21006 | 32197 | 26121 | 21868 | 24335 | Continuing | Continuing |
| C12 | STANDARD INTEGRATED COMMAND POSTS (SICPS) | 2393 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2393 |
| C29 | CENTRALIZED TECHNICAL SUPPORT FACILITY (CTSF) | 11057 | 11571 | 11921 | 12172 | 12461 | 12862 | 13224 | 0 | 85268 |
| C34 | ARMY TAC C2 SYS ENG | 12931 | 28211 | 10824 | 17541 | 3179 | 188069 | 243808 | 0 | 547124 |
| C39 | TACTICAL OPERATIONS CENTERS (TOCS) | 5031 | 6488 | 10918 | 4250 | 4332 | 0 | 0 | 0 | 44472 |
| C3A | ARMY AIRBORNE COMMAND & CONTROL SYS (A2C2S) | 34240 | 22910 | 7995 | 6986 | 6572 | 0 | 0 | 0 | 78703 |

**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) Combat Service Support Control System (CSSCS). 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 of the Transformation Campaign Plan (TCP).

| B. Program Change Summary | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| Previous President's Budget (FY 2004) | 96326 | 98129 | 86950 |
| Current Budget (FY 2005 PB) | 97970 | 101166 | 68110 |
| Total Adjustments | 1644 | 3037 | -18840 |
| Congressional program reductions | | -961 | |
| Congressional rescissions | | | |
| Congressional increases | | | |
| Reprogrammings | 1644 | 4100 | |
| SBIR/STTR Transfer | | -102 | |
| Adjustments to Budget Years | | | -18840 |

FY05 delta: Funds (-18840) result of ABCS "Good Enough" and realignment to higher priority requirements

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

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **323** |

| COST (In Thousands) | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 323 COMMON HARDWARE SYSTEMS | 18117 | 6453 | 6446 | 6514 | 6786 | 7078 | 7354 | 0 | 85646 |

**A. Mission Description and Budget Item Justification:** Project D323 Common Hardware Systems (CHS): CHS is the program through which the Army builds its integrated efforts for tying together the Army Battle Command Systems (ABCS). The project provides a vehicle (contract) through which customers can acquire state-of-the-art common hardware components/system operating software and associated peripherals to meet developmental and fielding needs. This project provides a ruggedized information technology line to over 80 Army and DoD customers. CHS provides woeldwide repair, maintenance and logistic support through regional support centers (RSCs). The CHS program is instrumental in digitizing the battlefield. This program supports the Current-to-Future transition path of the Transformation Campaign Plan (TCP).

| **Accomplishments/Planned Program** | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| Continue management of the acquisition and delivery of CHS-2 and CHS-3 equipment in support of customer requirements | 3156 | 5145 | 5646 |
| Continued follow-on contract requirements effort (CHS-3) | 1513 | 0 | 0 |
| Continue supporting customers testing efforts with CHS equipment | 300 | 300 | 300 |
| ABCS System Engineering and Integration efforts | 648 | 0 | 0 |
| CHS-3 follow-on contract awarded (Non-Recurring Engineering costs) | 12000 | 0 | 0 |
| Continue CHS technology insertion | 500 | 1008 | 500 |
| Totals | 18117 | 6453 | 6446 |

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

**C. Acquisition Strategy:** The overall goal is to improve interoperability 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 centralized environmental and developmental testing of hardware items thereby reducing the testing requirements for individual BFAs.

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**323**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . GDC4S/CHS-3 Non-Recurring Engineering | FFP/IDIQ | Taunton, MA | 0 | 12000 | 3Q | 0 | | 0 | | 12000 | 12000 | 0 |
| b . Technical Insertion | Various | Various | 10269 | 500 | 1-3Q | 916 | 1-3Q | 500 | 1-3Q | Continue | 12185 | 0 |
| c . CSC Hi-Tech Software Contract | C/T&M and MIPR | Fort Monmouth, NJ | 7654 | 0 | | 0 | | 0 | | 7654 | 7654 | 0 |
| d . MITRE/CECOM Systems Engineering Support | MIPR | Fort Monmouth, NJ | 10833 | 982 | 1Q | 1121 | 1Q | 894 | 1Q | Continue | 13830 | 0 |
| e . Concurrent Technology Corporation, 3-D Display Technology | OTA | Pennsylvania | 15811 | 0 | | 0 | | 0 | | 0 | 15811 | 0 |
| f . ABCS System Engineering and Integration | MIPR | Fort Monmouth, NJ | 1064 | 648 | 1Q | 0 | | 0 | | 0 | 1712 | 0 |
| g . CECOM Matrix: CHS Integrated Product Team-Testing/Logistics/Safety/Technical Writing support and fol | MIPR | Fort Monmouth, NJ | 22260 | 2012 | 1-2Q | 1502 | 1-2Q | 1562 | 1-2Q | Continue | 27336 | 0 |
| h . Govt support-Engineering/Logistics/CHS-2 ordering and CHS-3 efforts | MIPR | Fort Monmouth, NJ/Huntsville, AL | 44410 | 1675 | 1-3Q | 2614 | 1-3Q | 3190 | 1-3Q | Continue | 51889 | 0 |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**323**

| I. Product Development (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| Subtotal: | | | 112301 | 17817 | | 6153 | | 6146 | | Continue | 142417 | 0 |

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Not applicable | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . CHS Test Activities | MIPR | Other Government Activities | 300 | 300 | 3-4Q | 300 | 3-4Q | 300 | 3-4Q | Continue | Continue | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 300 | 300 | | 300 | | 300 | | Continue | Continue | 0 |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**323**

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| | | | | | | | | | | | | |
| Project Total Cost: | | | 112601 | 18117 | | 6453 | | 6446 | | Continue | Continue | 0 |

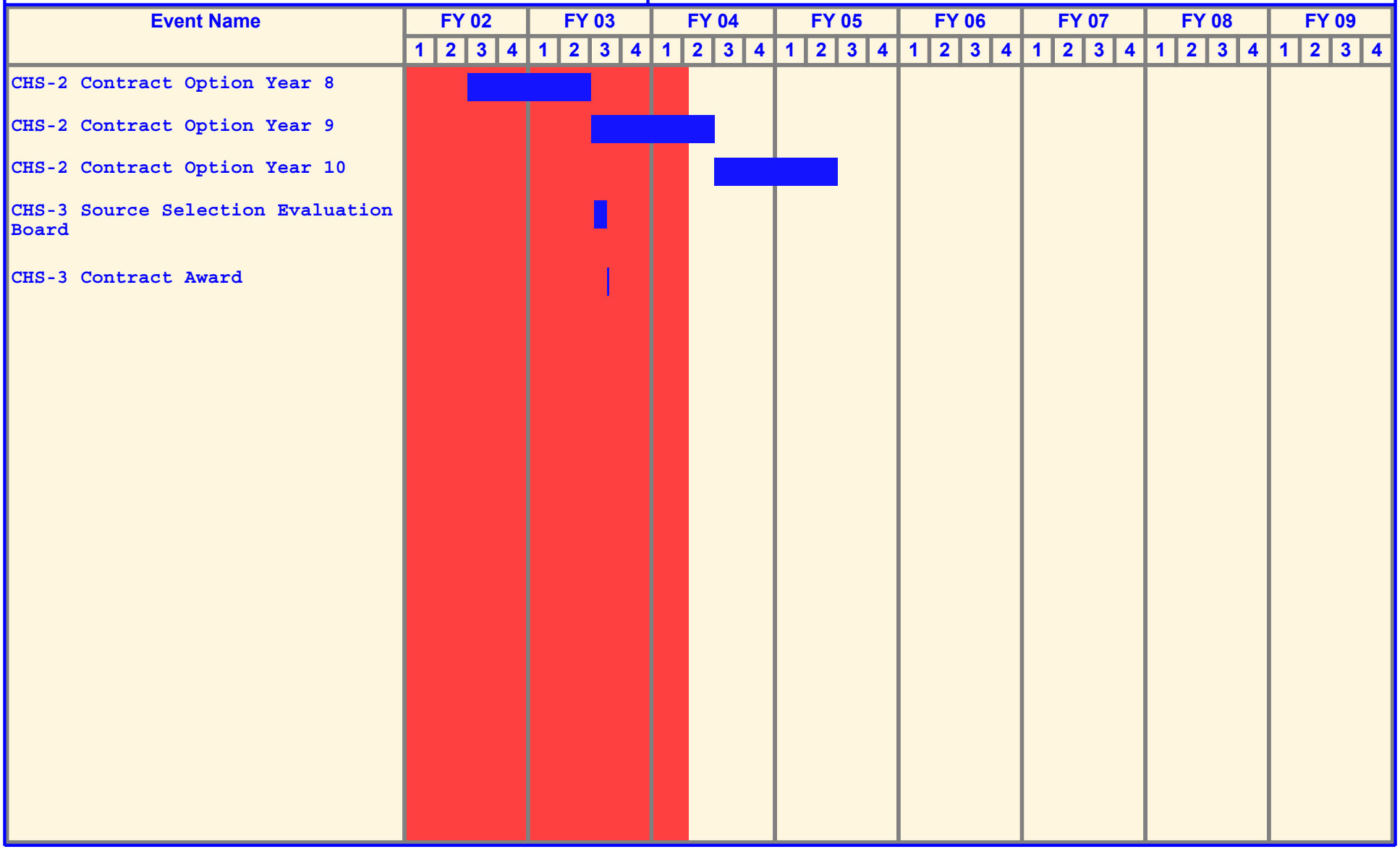
# Schedule Profile (R4 Exhibit)

February 2004

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

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

PROJECT
**323**



# Schedule Detail (R4a Exhibit)

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **323** |

| **Schedule Detail** | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|---|---|---|---|
| CHS Technology Insertion (continuous) | 1-3Q | 1-3Q | 1-3Q | 1-3Q | 1-3Q | 1-3Q | 1-3Q |
| CHS-3 Request for Proposal | 2Q | | | | | | |
| CHS-3 contract award | 3Q | | | | | | |
| Initial CHS-3 V1 software integration hardware deliveries | | 2Q | | | | | |
| Initial CHS-3 V2 software integration hardware deliveries | | | 2Q | | | | |
| CHS-2 contract expires | | | 3Q | | | | |

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

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **334** |

| COST (In Thousands) | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| 334 COMMON SOFTWARE | 14201 | 25533 | 21006 | 32197 | 26121 | 21868 | 24335 | Continuing | Continuing |

**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 systems thereby eliminating the need for similar independent development and duplication of effort. The CS program is a cornerstone in the Army's digitization efforts that includes work covering web based management tools under the Information Dissemination Management-Tactical (IDM-T) system. This system supports the Current to Future transition path of the Transformation Campaign Plan (TCP).

| Accomplishments/Planned Program | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| 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. Continue to achieve enhanced levels of interoperability by defining, testing and implementing software techologies 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. | 864 | 6813 | 7154 |
| 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. | 3484 | 15977 | 13852 |
| 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. | 4291 | 2000 | 0 |
| ABCS System Engineering and Integration Efforts | 210 | 0 | 0 |
| Integrate the Army's Advanced Warfare Environment's commercial 3D display technology development to support command and control modernization initiatives. | 5352 | 0 | 0 |

| **Accomplishments/Planned Program (continued)** | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| Small Business Innovative Research/Small Business Technology Transfer Programs | 0 | 743 | 0 |
| Totals | 14201 | 25533 | 21006 |

| **B. Other Program Funding Summary** | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | To Compl | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| Not applicable for this item. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**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)

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

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

PROJECT
**334**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Matrix Support of CS Lab, Data Access | MIPR | CECOM, Fort Monmouth, NJ | 718 | 364 | 1-3Q | 376 | 1-3Q | 395 | 1-3Q | Continue | Continue | 0 |
| b . Engineering/Software Development | C, T&M | Various GSA Contractors / Various Locations | 10530 | 7550 | 1-3Q | 12315 | 1-3Q | 10145 | 1-3Q | Continue | Continue | 0 |
| c . ABCS System Engineering & Integration | MIPR | PEO C3T, Fort Monmouth, NJ | 0 | 210 | 1Q | 0 | | 0 | | 0 | 210 | 0 |
| d . 3D Display Technology | OTA | Concurrent Technology Corp., Johnstown, PA | 0 | 5352 | 3Q | 0 | | 0 | | 0 | 5352 | 0 |
| e . Digital System Engineers | | Various Contractors | 0 | 0 | | 7000 | 1-2Q | 7130 | 1-2Q | Continue | Continue | 0 |
| f . DISA Support for COE | MIPR | | 0 | 0 | | 1486 | 1-2Q | 1635 | 1-2Q | Continue | Continue | 0 |
| g . IDM-T Engineering Support | MIPR | GSA Contractors | 0 | 0 | | 2000 | 1-3Q | 0 | | 0 | 2000 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 11248 | 13476 | | 23177 | | 19305 | | Continue | Continue | 0 |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**334**

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Program Support | In-house | PM GCC2, Ft. Monmouth, NJ | 0 | 0 | | 777 | 1-3Q | 816 | 1-3Q | Continue | Continue | 0 |
| b . Automation Support | C, T&M | PKMM, Oceanport, NJ | 199 | 150 | 1-2Q | 150 | 1-2Q | 165 | 1-2Q | Continue | Continue | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 199 | 150 | | 927 | | 981 | | Continue | Continue | 0 |

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . 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)

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

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

PROJECT
**334**

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Program Office Management | In-House | Fort Monmouth, NJ | 1096 | 575 | 1-4Q | 686 | 1-4Q | 720 | 1-4Q | Continue | Continue | 0 |
| b . SBIR/STTR | | | 0 | 0 | | 743 | 1Q | 0 | | 0 | 743 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 1096 | 575 | | 1429 | | 720 | | Continue | Continue | 0 |
| Project Total Cost: | | | 12543 | 14201 | | 25533 | | 21006 | | Continue | Continue | 0 |

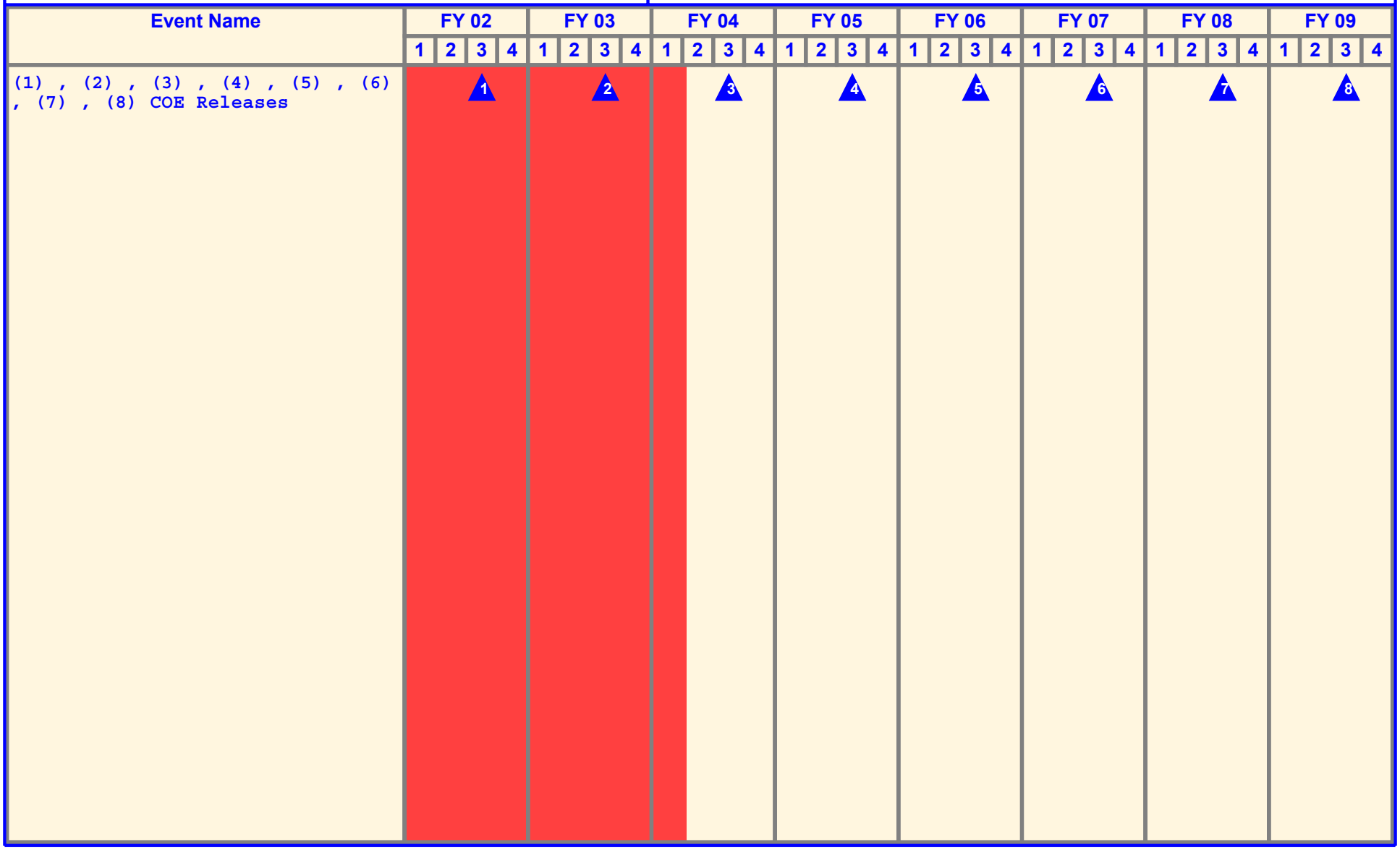
# Schedule Profile (R4 Exhibit)

February 2004

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

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

PROJECT
**334**



# Schedule Detail (R4a Exhibit)

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **334** |

| Schedule Detail | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|---|---|---|---|
| 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 | 1-4Q |

Note: COE software product deliveries are made every twelve (12) months.

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

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| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C12** |

| COST (In Thousands) | | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|
| C12 | STANDARD INTEGRATED COMMAND POSTS (SICPS) | 2393 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2393 |

**A. Mission Description and Budget Item Justification:** The Standard Integrated Command Post System (SICPS) program currently procures five (5) post variants, each designed to accommodate the various Battlefield Functional Areas (BFAs) and Tactical Operations Centers (TOCs) of the Army Battle Command System (ABCs) and other customers. The ABCS customers include the Army Tactical Command and Control System (ATCCS) to include Maneuver Control System (MCS), Effects and Fire Command and Control Systems (EFCCS), the Combat Services Support Control System (CSSCS), the Forward Area Air Defense Command and Control System (FAADC2), the Air and Missile Defense Planning and Control Sysem (AMDPCS), the All Source Analysis System (ASAS), and the Integrated Meteorological System (IMETS). This also supports the First Digitized Corps (FDC), First Digitized Division (FDD), Second Digitized Division (SDD) and Transformation efforts. SICPS is essential to the Army's transformation efforts, providing mobile and environmentally protected platforms for the ABCS which is a major part of the Army Chief of Staff's effort to digitize the battlefield. The current five (5) command post variants are: SICPS Tent Command Post (CP), Rigid Wall Shelter (RWS) CP mounted on the High Mobility Multipurpose Wheeled Vehicle (HMMWV), Installation Kits for the 5-Ton Expansible Van (E-Van), M577 IK to make M1068 Track CP, and the Installation Kits for the Soft Top HMMWV. The RDT&E program enables the development of Large SICPS Tent, Large SICPS Shelter (LSS), and Modular Expandable Rigid Wall Shelter (MERWS). Additionally, this program develops and matures the enabling technologies required to meet the ABCS Capstone Requirements Document (CRD) and develops SICPS designs for FDC, FDD, SDD and the transformation force. The SICPS program and funding transfer to the TOCs program beginning in FY 04. This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

| Accomplishments/Planned Program | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| Large SICPS Tent. Continue development of an alternate configuration of the SICPS Tent Command Post. This alternate design will include a larger base module than the current SICPS tent along with the required infrastructure to facilitate Tactical Operations Center (TOC) configurations. This Large SICPS Tent will be able to be complexed together by adjoining modules and will also have the capability to interface with existing SICPS. This effort was funded under PE 64804/429 in FY 2002 ($7728M). | 2393 | 0 | 0 |
| Totals | 2393 | 0 | 0 |

| B. Other Program Funding Summary | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | To Compl | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| OPA 2, BZ9962 | 28736 | 361 | 0 | 0 | 2524 | 1748 | 892 | 0 | 67005 |

**C. Acquisition Strategy:** Medium and Large SICPs tents will be developed and procured through full and open competition.

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C12**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Medium & Large SICPS Tents | TBD | TBD | 0 | 1985 | 3Q | 0 | | 0 | | Continue | 1985 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 1985 | | 0 | | 0 | | Continue | 1985 | 0 |

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Engineering Support | MIPR | Fort Monmouth, NJ | 0 | 408 | 2-3Q | 0 | | 0 | | Continue | Continue | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 408 | | 0 | | 0 | | Continue | Continue | 0 |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C12**

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Not applicable | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| Project Total Cost: | | | 0 | 2393 | | 0 | | 0 | | Continue | Continue | 0 |

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

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C29** |

| COST (In Thousands) | | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|
| C29 | CENTRALIZED TECHNICAL SUPPORT FACILITY (CTSF) | 11057 | 11571 | 11921 | 12172 | 12461 | 12862 | 13224 | 0 | 85268 |

**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 to the Transformation Campaign Plan (TCP).

| **Accomplishments/Planned Program** | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| Continue test planning/procedures/execution/reporting | 2102 | 2202 | 2304 |
| Continue software engineering. | 1907 | 2032 | 2086 |
| Provide infrastructure (Facilities, upgrades, additions). | 1400 | 1428 | 1440 |
| Continue field engineering. | 1237 | 1322 | 1304 |
| Continue management operations. | 1185 | 1310 | 1322 |
| Provide equipment for instrumentation, simulation/stimulation, software evaluation and development tools. | 725 | 900 | 905 |
| Continue configuration management. | 785 | 806 | 826 |
| Provide networks connections to include DISN, SIPRNET, NIPRNET, GUARDNET. | 300 | 308 | 315 |
| Provide logistics support. | 221 | 227 | 233 |
| Provide DA Mandated Intra-Army Digital Certification test and validation. | 1195 | 915 | 1186 |
| Small Business Innovative Research | 0 | 85 | 0 |
| Small Business Technology Transfer Programs | 0 | 36 | 0 |
| Totals | 11057 | 11571 | 11921 |

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

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C29**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . MANTECH (Direct Labor) | C/CPFF | Fort Hood, TX | 0 | 2405 | 1Q | 2922 | 1Q | 2989 | 1Q | Continue | 8316 | Continue |
| b . COMPUTER SCIENCE CORP (System Engineering) | C/CPAF | Fort Hood, TX/Fort Monmouth, NJ | 0 | 1158 | 1Q | 1186 | 1Q | 1214 | 1Q | Continue | Continue | Continue |
| c . MITRE Corp (System Engineering) | C/CPFF | Fort Hood, TX/Eatontown, NJ | 0 | 1106 | 1Q | 1010 | 1Q | 1104 | 1Q | Continue | 3220 | Continue |
| d . CAMBER (Config Mgt/) | C/CPAF | Fort Hood, TX | 0 | 600 | 1Q | 600 | 1Q | 600 | 1Q | Continue | Continue | Continue |
| e . TRW (Field Engineering) | C/CPIF | Fort Hood, TX | 0 | 965 | 1Q | 988 | 1Q | 1011 | 1Q | Continue | Continue | Continue |
| f . NICHOLS (Logistics Support) | C/CPAF | Fort Hood, TX | 0 | 749 | 1Q | 772 | 1Q | 790 | 1Q | Continue | 2311 | Continue |
| g . ILEX (Field Engineering) | C/CPAF | Fort Hood, TX | 0 | 377 | 1Q | 386 | 1Q | 395 | 1Q | Continue | Continue | Continue |
| h . ROBBINS- GIOIA (Data Base Management) | C/CPAF | Fort Hood, TX/Fort Monmouth, NJ | 0 | 300 | 1Q | 307 | 1Q | 314 | 1Q | Continue | Continue | Continue |
| i . GTE | C/CPFF | Fort Hood, TX | 0 | 231 | 1-4Q | 237 | 1Q | 243 | 1Q | Continue | Continue | Continue |
| j . EWA | C/CPAF | Fort Hood, TX | 0 | 140 | 1-2Q | 143 | 1Q | 146 | 1Q | Continue | Continue | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 8031 | | 8551 | | 8806 | | Continue | Continue | Continue |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C29**

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . CECOM Matrix | MIPRs | Fort Hood, TX/Fort Monmouth, NJ | 0 | 145 | 1Q | 0 | | 0 | | Continue | Continue | Continue |
| b . In-House Support | MIPRs | Fort Hood, TX | 0 | 123 | 1Q | 150 | 1Q | 159 | 1Q | Continue | Continue | Continue |
| c . Other Government Support | MIPRs | Fort Hood, TX | 0 | 33 | 1Q | 50 | 1Q | 55 | 1Q | Continue | Continue | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 301 | | 200 | | 214 | | Continue | Continue | Continue |

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . ELECTRONIC PROVING GROUNDS (EPG) | MIPR | | 0 | 2300 | 1-4Q | 2370 | 1-2Q | 2426 | 1-2Q | Continue | Continue | Continue |
| b . CAMBER (Testing) | CPAF | Fort Hood, TX | 0 | 425 | 1Q | 450 | 1Q | 475 | 1Q | Continue | Continue | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 2725 | | 2820 | | 2901 | | Continue | Continue | Continue |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C29**

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Not applicable | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| Project Total Cost: | | | 0 | 11057 | | 11571 | | 11921 | | Continue | Continue | Continue |

# Schedule Detail (R4a Exhibit)

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C29** |

| **Schedule Detail** | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|---|---|---|---|
| Army Battle Command System (ABCS) 6.3 Test/Fixes/Integration | 1Q | | | | | | |
| Interoperability Certification Testing (Eagle / Common Ground Station (CGS) | 1Q | | | | | | |
| Prairie Warrior 02 (ABCS 7.0) | 2Q | | | | | | |
| ABCS 7.0 System of System (SoS) Integration | 2Q | 3Q | | | | | |
| Roving Sands | 3Q | | | | | | |
| III Corps UFL 03 | 4Q | | | | | | |
| ABCS 7.0 Test Window | | 2-4Q | | | | | |
| III Corps UFL 04 | | 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 (R-2A Exhibit)

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C34** |

| COST (In Thousands) | | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|
| C34 | ARMY TAC C2 SYS ENG | 12931 | 28211 | 10824 | 17541 | 3179 | 188069 | 243808 | 0 | 547124 |

**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): The Air/Land Battle 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 supports the Army Battle Command Systems (ABCS) Version 6.30 and the Current to Future transition path to the Transformation Campaign Plan (TCP).

| Accomplishments/Planned Program | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| Continue Army Battle Command System (ABCS) Integrated Logistics Support | 890 | 483 | 187 |
| Continue ABCS Testing and Evaluation of all Battlefield Functional Area (BFA) fielded software | 775 | 1210 | 477 |
| Continue ABCS Fielding/Scheduling | 1222 | 2412 | 936 |
| Continue Digitized Divisions 2 thru N (DD2-N) / ABCS Integrated Training Support | 1134 | 2177 | 840 |
| Continue ABCS information engineering | 1319 | 2947 | 1126 |
| Conduct and support system interoperability engineering | 637 | 907 | 346 |
| Continue exploring state of the art technology insertion in support of the ABCS program | 417 | 472 | 180 |
| Continue development and implementation of the ABCS information assurance | 569 | 1170 | 452 |
| Continue ABCS System Engineering | 2897 | 8011 | 2266 |
| Continue System of Systems Development | 3071 | 7630 | 3014 |
| Small Business Innovative Research/Small Business Technology Transfer Programs | 0 | 707 | 0 |
| Small Business Technology Transfer Programs | 0 | 85 | 0 |
| Totals | 12931 | 28211 | 9824 |

**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, software development, interoperability, 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 ATCCS as soon as possible.

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C34**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . TRW | C/CPIF | Fort Monmouth, NJ/Fort Hood, TX | 5973 | 1000 | 2Q | 2490 | 1Q | 565 | 1Q | Continue | 10028 | Continue |
| b . CSC, NICHOLS | C/CPAF | Fort Monmouth, NJ/Fort Hood, TX | 22188 | 3500 | 2Q | 6595 | 1Q | 1251 | 1Q | Continue | 33534 | Continue |
| c . MITRE | C/CPFF | Ft Monmouth, NJ/Eatontown, NJ | 13833 | 3681 | 2Q | 9911 | 1Q | 3533 | 1Q | Continue | 30958 | 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 | 1460 | 0 | | 0 | | 0 | | 0 | 1460 | 855 |
| f . ROBBINS-GIOIA | C/CPAF | Fort Monmouth, NJ/Fort Hood, TX | 3014 | 900 | 2Q | 1058 | 1Q | 540 | 1Q | Continue | 5512 | Continue |
| g . LOCKHEED MARTIN | C/CPAF | Eatontown, NJ | 3057 | 902 | 1-2Q | 2075 | 1Q | 652 | 1Q | Continue | 6686 | Continue |
| h . GTE (Labor and Equipment) | C/CPFF | Fort Hood, TX | 2181 | 0 | 1-4Q | 419 | 1-4Q | 431 | 1-4Q | Continue | Continue | Continue |
| i . Misc Contracts | C/CPAF | Fort Monmouth, NJ/Fort Hood, TX | 4155 | 0 | 1-2Q | 1548 | 1-2Q | 185 | 1-2Q | Continue | 5888 | Continue |
| j . Unixpros | C/CPAF | Eatontown, NJ | 3711 | 0 | | 0 | | 0 | | 0 | 3711 | 3711 |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C34**

| I. Product Development (continued) | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| k . ATSC | MIPR | Fort Leavenworth, KY | 1240 | 300 | 1Q | 310 | 1Q | 0 | 1Q | Continue | 1850 | Continue |
| l . IDA | MIPR | Fort Monmouth, NJ | 934 | 390 | 1-2Q | 400 | 1Q | 0 | 1Q | Continue | 1724 | Continue |
| m . ITT | C/CPAF | Eatontown, NJ | 1070 | 0 | | 0 | | 0 | | Continue | Continue | Continue |
| n . BOOZ-ALLEN | C/CPAF | Eatontown, NJ | 750 | 592 | 1Q | 608 | 1Q | 626 | 1Q | Continue | Continue | Continue |
| o . MISCELLANEOUS SUPPORT | C/CPAF | Eatontown, NJ/Fort Hood, TX | 775 | 268 | 1-2Q | 478 | 1-2Q | 464 | 1-2Q | Continue | 1985 | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 70837 | 11533 | | 25892 | | 8247 | | Continue | Continue | Continue |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C34**

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . IN-HOUSE SUPPORT | MIPRs | Fort Monmouth, NJ/Fort Hood, TX | 5088 | 315 | 1-2Q | 324 | 1Q | 335 | 1Q | Continue | Continue | Continue |
| b . CECOM MATRIX | MIPRs | Fort Monmouth, NJ/Fort Hood, TX | 2257 | 835 | 1-2Q | 953 | 1Q | 982 | 1Q | Continue | Continue | Continue |
| c . OTHER GOVERNMENT SUPPORT | MIPRs | Fort Monmouth, NJ/Fort Hood, TX/Fort Belvoir, VA | 3091 | 123 | 2Q | 125 | 2Q | 130 | 1Q | Continue | 3469 | Continue |
| | | | | | | | | | | | | |
| Subtotal: | | | 10436 | 1273 | | 1402 | | 1447 | | Continue | Continue | Continue |

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . EPG | MIPR | Fort Huachuca, AZ | 2213 | 125 | 1Q | 125 | 1Q | 130 | 1Q | 0 | 2593 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 2213 | 125 | | 125 | | 130 | | 0 | 2593 | 0 |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C34**

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . SBIR/STTR | Various | | 0 | 0 | 1-4Q | 792 | | 0 | | 0 | 792 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 792 | | 0 | | 0 | 792 | 0 |
| Project Total Cost: | | | 83486 | 12931 | | 28211 | | 9824 | | Continue | Continue | Continue |

# Schedule Detail (R4a Exhibit)

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C34** |

| Schedule Detail | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|---|---|---|---|
| ABCS 6.3.X | 1-4Q | 1Q | | | | | |
| NATIONAL TRAINING CENTER (NTC) ROTATIONS | 1-4Q | 1-4Q | 1-4Q | 1-4Q | 1-4Q | 1-4Q | 1-4Q |
| ABCS 6.4 SOFTWARE DEVELOPMENT | 1-4Q | 1-4Q | 1-2Q | | | | |
| SBCT-2 FIELDING | 1-4Q | 1-3Q | | | | | |
| SBCT-3 FIELDING | 4Q | 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 | |
| FCS OPERATIONAL ARCHITECHTURE (OA)/SYSTEM ARCHITECTURE (SA) | | | | | | 1-4Q | 1-4Q |
| FCS C2 SYSTEMS ENGINEERING & INTEGRATION | | | | | | 1-4Q | 1-4Q |

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

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C39** |

| COST (In Thousands) | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| C39 TACTICAL OPERATIONS CENTERS (TOCS) | 5031 | 6488 | 10918 | 4250 | 4332 | 0 | 0 | 0 | 44472 |

**A. Mission Description and Budget Item Justification:** The Tactical Operations Centers (TOCs) program supports Army Transformation in the overall mission area of "Exercising Command and Control". The TOCs program provides commanders (at all echelons of command from battalion to corps) with integrated digitized network centric command and control facilities from which they execute battle command and make decisions based on objective data and intuitive feel for the battle. To perform these functions, the commander and his staff require command, control and communications systems integrated on mobile platforms capable of keeping pace with maneuver forces. The TOCs program provides the physical infrastructure (platforms, power, environmental control, data networks, inter-communications and video displays) capable of operating under all conditions on the modern battlefield, and provides the real-time situational understanding (Common Operational Picture) inherent in the Army Battle Command System (ABCS). Network centric TOCs are key to ensuring that information superiority and force synchronization are gained on the tactical and operational battlefield. TOCs are required for all combat, combat support and combat service support units. FY04 effort includes design, development, and testing of Command Post platforms (CPPs) and shelters for Current Force (eg. Counterattack Corps) and Stryker Brigade Combat Teams (SBCTs) that meet Army Approved ORD requirements. FY05 completes engineering and testing of CPPs and shelters and supports the integration of TOCs for Current Force and SBCTs. The SICPS program transferred to the TOCs program in FY04. Prior years depict TOCs only. SICPS prior year funding can be found in separate submission (PE 0604818A-C12). This system supports the Current-to-Future transition path of the Transformation Campaign Plan (TCP).

| Accomplishments/Planned Program | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| Design, engineering and test of Current Force TOCs | 2417 | 850 | 500 |
| Design, engineering and test of Stryker Brigade Combat Team TOCs | 1529 | 762 | 150 |
| Design, engineering and testing of Command Post Platforms (CPPs) | 0 | 475 | 9618 |
| Development, test of EMI tents | 125 | 175 | 0 |
| TOC 3D and Survivable Carrier | 0 | 4100 | 0 |
| ABCS SE & I | 395 | 0 | 0 |
| In-house Government Support | 565 | 126 | 650 |
| Totals | 5031 | 6488 | 10918 |

| **B. Other Program Funding Summary** | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | To Compl | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| Other Procurement Army 2 - SSN: BZ9865 | 41187 | 68997 | 50692 | 63555 | 50229 | 26781 | 10273 | 1849460 | 2204852 |

**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 Command Post Platforms and Tactical Operations Centers (TOCs). Contracting strategy calls for full and open competition.

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C39**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Current Force TOCs (4ID & 1CD) | C/CPFF | GDDS (Huntsville, AL) | 8651 | 1916 | 3Q | 0 | | 0 | | Continue | 10567 | Continue |
| b . Current Force TOCs (3/4ID & 3ACR) | TBD | TBD | 0 | 0 | | 850 | 2Q | 500 | 1Q | Continue | 1350 | Continue |
| c . SBCTs 1,2 & 3 | C/CPIF | NGMS (Huntsville, AL) | 6710 | 1955 | 2Q | 80 | | 0 | | Continue | 8745 | Continue |
| d . SBCTs 4 | TBD | TBD | 0 | 0 | | 682 | 2Q | 150 | 1Q | 0 | 832 | Continue |
| e . Command Post Platforms | TBD | TBD | 0 | 0 | | 365 | 3Q | 9440 | 1Q | Continue | 9805 | Continue |
| f . In-House and Government Support | | Various | 0 | 565 | 1-2Q | 126 | 1-2Q | 0 | | 0 | 691 | 0 |
| g . EMI Tent | | Various | 0 | 395 | 1Q | 175 | 2Q | 0 | | 0 | 570 | 0 |
| h . TOC 3D Survivable Carrier | | | 0 | 0 | | 4100 | 2Q | 0 | | Continue | 4100 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 15361 | 4831 | | 6378 | | 10090 | | Continue | 36660 | Continue |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C39**

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Development Test | TBD | TBD | 0 | 0 | | 110 | 1-2Q | 828 | 1-2Q | 0 | 938 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 0 | | 110 | | 828 | | 0 | 938 | 0 |

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Government Engineering Support | MIPR | DTRA | 4232 | 0 | | 0 | | 0 | | 0 | 4232 | Continue |
| b . Contractor Support | | | 306 | 200 | | 0 | | 0 | | 0 | 0 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 4538 | 200 | | 0 | | 0 | | 0 | 4232 | Continue |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C39** |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Total Cost: | | | 19899 | 5031 | | 6488 | | 10918 | | Continue | 41830 | Continue |

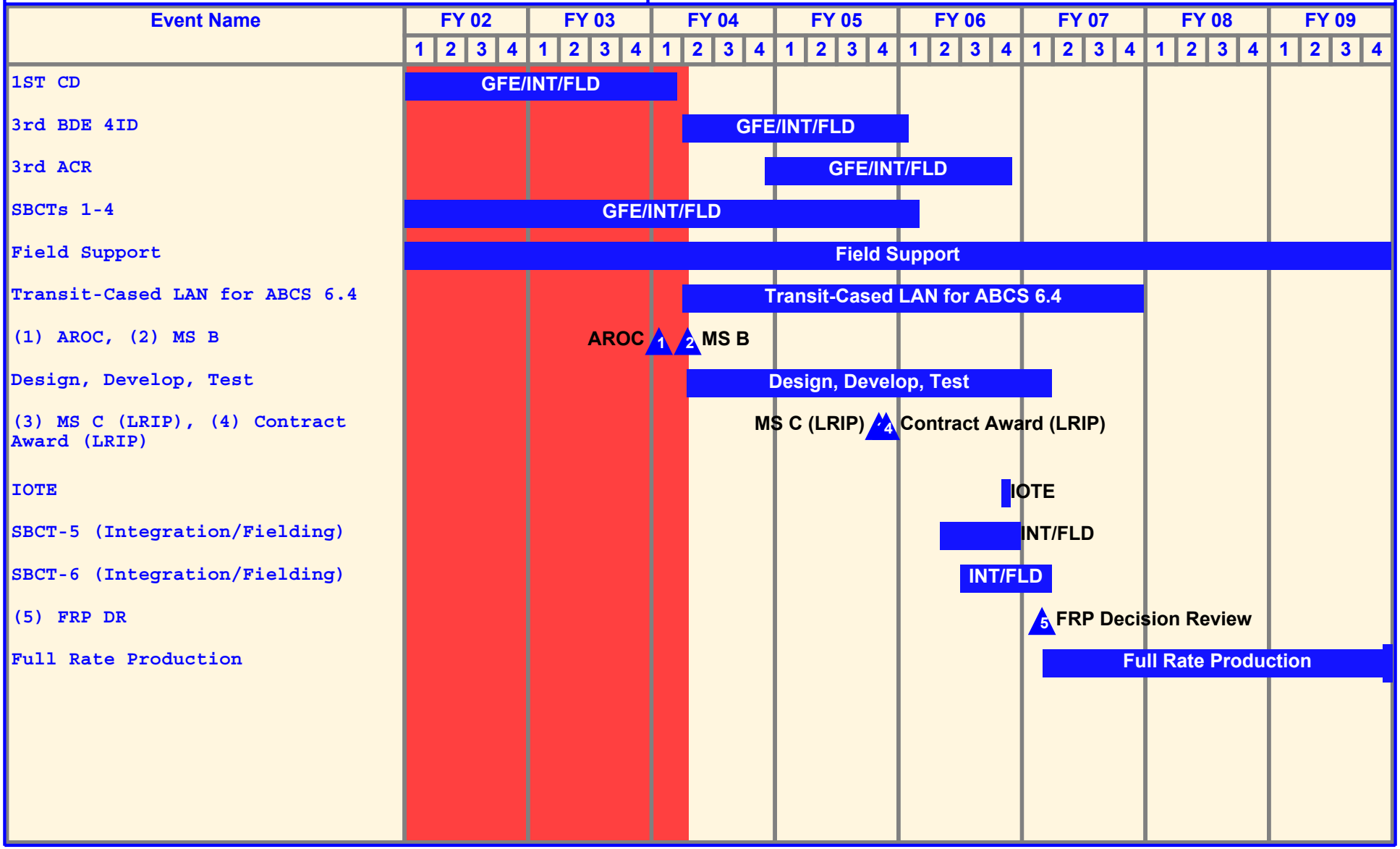
# Schedule Profile (R4 Exhibit)

February 2004

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

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

PROJECT
**C39**



# Schedule Detail (R4a Exhibit)

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C39** |

| Schedule Detail | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|---|---|---|---|
| Design Review - SBCT-3 | 3Q | | | | | | |
| Design Review - SBCT-4 | | 3Q | | | | | |
| Design Review - 3rd Brigade 4ID | | | 2Q | | | | |
| Design Review - 3rd ACR | | | 2Q | | | | |
| Design Review - Light Corps | | | 2Q | | | | |
| Design Review - Heavy Corps | | | | 2Q | | 2Q | 2Q |
| Design Review - Light Division | | | 2Q | 2Q | 2Q | | |
| Design Review - Light Division Plus | | | 2Q | | | | |
| Design Review - Heavy Division | | | | 2Q | 2Q | 2Q | 2Q |
| Design Review - Light ESB | | | 2Q | 2Q | | | |
| Design Review - Heavy ESB | | | | | 2Q | 2Q | 2Q |
| Design Review -SBCT-1,2,3,5&6 | | 2Q | 2Q | 2Q | 2Q | 2Q | |
| Design Review - SBCT-4 | | | | | | | 2Q |
| Design Review -SOF | | | 2Q | 2Q | 2Q | 2Q | |
| Design Review -SOF | | | 2Q | 2Q | 2Q | 2Q | |
| Design Review -Light Division (ARNG) | | | 2Q | 2Q | 2Q | | |
| Design Review- Heavy Division (ARNG) | | | | | | 2Q | |

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

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C3A** |

| COST (In Thousands) | | FY 2003 Actual | FY 2004 Estimate | FY 2005 Estimate | FY 2006 Estimate | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | Cost to Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|
| C3A | ARMY AIRBORNE COMMAND & CONTROL SYS (A2C2S) | 34240 | 22910 | 7995 | 6986 | 6572 | 0 | 0 | 0 | 78703 |

**A. Mission Description and Budget Item Justification:** This project funds the development of an avionics system required to horizontally and vertically integrate the 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 the Army's only airborne C2 acquisition program for a system supporting corps, division and brigade Commanders. The A2C2S enables Commanders from brigade to theatre levels, and their staffs, to traverse the battle space rapidly - maintaining situational awareness of all battlefield systems - and maintaining communications, tactical to CONUS reach back, throughout the decision continuum. The A2C2S routinely operates in linear and non-linear areas of operations, all the time providing information superiority with the common operational picture necessary for an accurate, near real-time perspective and knowledge of the situation to avoid enemy strengths while concentrating friendly assets for decisive and rapid victory. Another objective of the A2C2S program is to be 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. It provides the capability to access the tactical internet to manipulate, store, manage, and analyze situational awareness information, intelligence data, mission plans, and mission progress data to support the command and control decision making process. The A2C2S will provide situational awareness and command and control by hosting Battle Command applications. In addition to line-of-sight Combat Net Radios, including Single Channel Ground Airborne Radio System (SINGARS), Advanced System Improvement Program (ASIP) and HAVEQUICK II, the A2C2S supports deep operations with non-line-of-sight radios such as High Frequency (HF) and Demand Assigned Multiple Access (DAMA) and Satellite Communications System Satellite Command (SATCOM). In addition, the system has the potential to improve the ability of state, local, and federal agencies to communicate and coordinate in a crisis environment such as hurricanes, forest fires, or terrorist incidents. This system supports the Current-to-Future transition path of the Transformation Campaign Plan (TCP)

| **Accomplishments/Planned Program** | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| Continue System Development and Evaluation BLK I & BLK II | 13876 | 13336 | 5495 |
| Continue Prototype Integration Systems 3 through 7 | 6144 | 2571 | 0 |
| ABCS Support SE&I | 195 | 200 | 0 |
| Software Integration/Development | 2618 | 0 | 0 |

| **Accomplishments/Planned Program (continued)** | FY 2003 | FY 2004 | FY 2005 |
|---|---|---|---|
| Continue AWQ, Development and Operational Test | 9097 | 4689 | 2500 |
| Continue Support of Systems 1 and 2 | 2310 | 1449 | 0 |
| Small Business Innovative Research/Small Business Technology Transfer Programs. | 0 | 665 | 0 |
| Totals | 34240 | 22910 | 7995 |

| **B. Other Program Funding Summary** | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | To Compl | Total Cost |
|---|---|---|---|---|---|---|---|---|---|
| Airborne Command and Control SSN AA0710 | 11284 | 28928 | 26603 | 28055 | 3901 | 4284 | 3960 | Continuing | Continuing |

**C. Acquisition Strategy:** A competitive cost type contract was awarded in August 2001 to Raytheon. Raytheon produced two (2) prototype systems in FY03. The existing contract has options for LRIP and FRP. Milestone C is planned for March 04.

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C3A**

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . System Dev and Eval BLK I, P3I and BLK II | CPIF | Raytheon Huntsville, and TBD | 0 | 4152 | 1Q | 5325 | 1Q | 5495 | 1Q | Continue | 14972 | 0 |
| b . Prototype Integration (Systems 3 - 7) | CPIF | Raytheon | 0 | 6626 | 1Q | 2871 | 1Q | 0 | | Continue | 9497 | 0 |
| c . Software Integration/Development | CPIF | Raytheon Huntsville | 0 | 2618 | 1Q | 0 | 1Q | 0 | 1Q | Continue | 2618 | 0 |
| d . Systems and Engineering Logistics Support | Various | Raytheon /AMCOM | 0 | 6037 | | 6562 | | 0 | | Continue | 12599 | 0 |
| e . ABCS SE&I | MIPR | Ft. Monmouth, NJ | 0 | 195 | | 0 | | 0 | | 0 | 195 | 0 |
| f . Inhouse/Government | Various | Various | 0 | 0 | | 0 | | 0 | | 0 | 0 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 19628 | | 14758 | | 5495 | | Continue | 39881 | 0 |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C3A**

| II. Support Cost | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Support of System 1 and 2 deployed to 4th ID and 101st ABN | Various | Various | 0 | 2310 | 1Q | 1449 | 1Q | 0 | 1Q | 0 | 3759 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 2310 | | 1449 | | 0 | | 0 | 3759 | 0 |

| III. Test and Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . Development Test & Evaluation and AWQ | MIPR/CPIF | ATEC/RTTC/AATD/AED/Raytheon | 0 | 7862 | 1Q | 4041 | 1Q | 0 | 1Q | Continue | 11903 | 0 |
| b . Operational Test | Various | Various | 0 | 1235 | | 648 | 3Q | 2259 | 1Q | Continue | 4142 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 9097 | | 4689 | | 2259 | | Continue | 16045 | 0 |

# ARMY RDT&E COST ANALYSIS(R3)

**February 2004**

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

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

PROJECT
**C3A**

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2003 Cost | FY 2003 Award Date | FY 2004 Cost | FY 2004 Award Date | FY 2005 Cost | FY 2005 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a . In-House/Gov't | | | 0 | 3205 | | 2014 | | 241 | | 0 | 5460 | 0 |
| | | | | | | | | | | | | |
| Subtotal: | | | 0 | 3205 | | 2014 | | 241 | | 0 | 5460 | 0 |
| Project Total Cost: | | | 0 | 34240 | | 22910 | | 7995 | | Continue | 65145 | 0 |

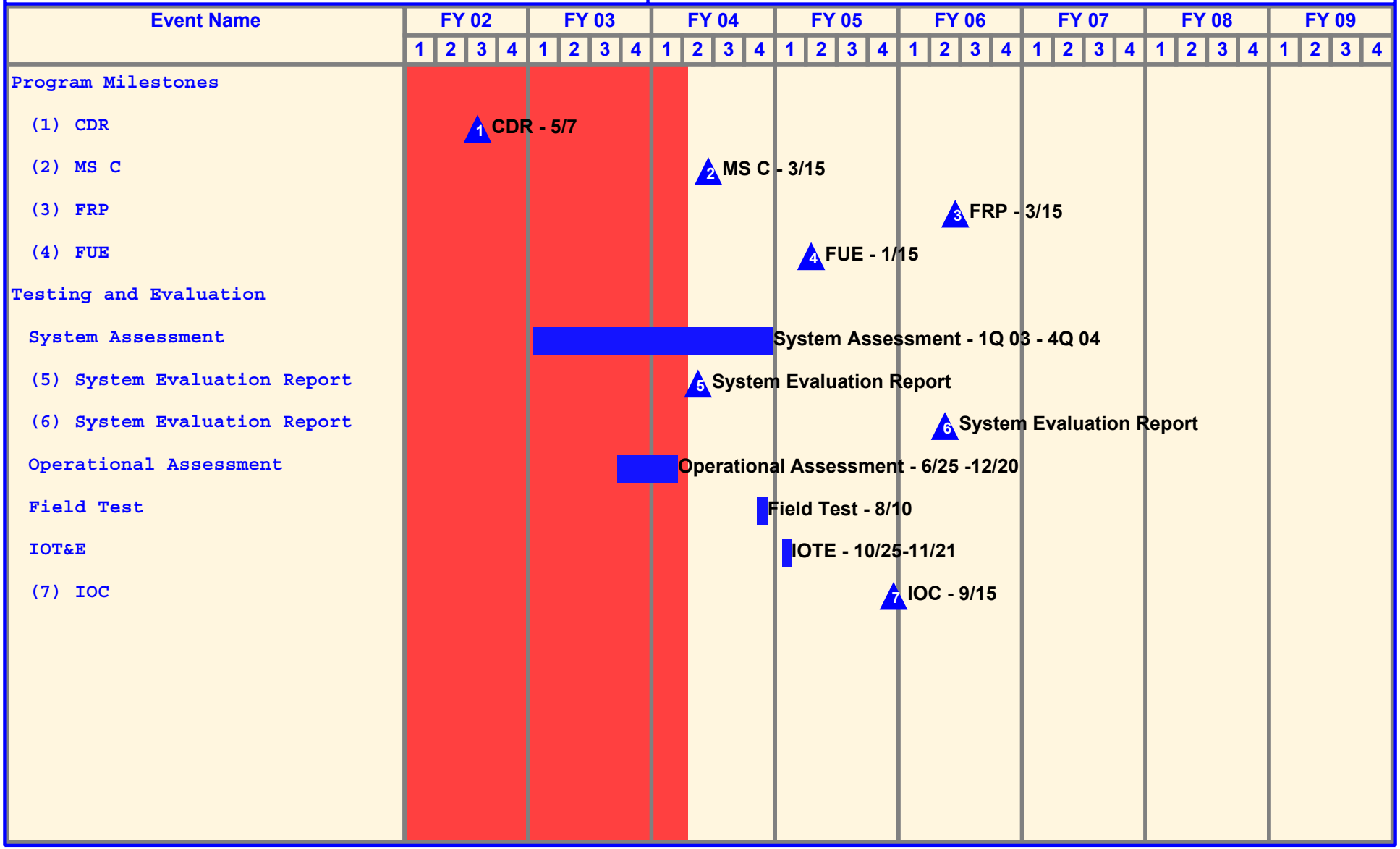
# Schedule Profile (R4 Exhibit)

February 2004

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

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

PROJECT
**C3A**



# Schedule Detail (R4a Exhibit)

**February 2004**

| BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **5 - System Development and Demonstration** | **0604818A - Army Tactical Command & Control Hardware & Softwar** | **C3A** |

| Schedule Detail | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|---|---|---|---|
| Continue System Development and Evaluation BLK I, P3I, and BLK II | 1-4Q | 1-4Q | 1-4Q | 1-4Q | 1-4Q | | |
| Continue/Complete A2C2S Prototype Fabrication and Platform Integration Systems | 1-4Q | 1-4Q | | | 1-4Q | | |
| Continue System Engineering, Software Integration and Logistics Planning for A2C2S | 1-4Q | 1-4Q | 1-4Q | 1-4Q | 1-4Q | | |
| Continue Development Testing | 1-4Q | 1-4Q | 1-4Q | 1-4Q | 1-4Q | | |
| Operational Testing | 3-4Q | 1-4Q | 1Q | | | | |