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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**

COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	42864	39059	50887	0	0	0	0	0	0	0
323 COMMON HARDWARE SYSTEMS	13681	12454	10281	0	0	0	0	0	0	323
334 COMMON SOFTWARE	0	4568	4720	0	0	0	0	0	0	334
C34 ARMY TAC C2 SYS ENG	21715	16065	27951	0	0	0	0	0	0	C34
C39 TACTICAL OPERATIONS CENTERS (TOCS)	7468	5972	7935	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification:

PLEASE NOTE: **This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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) Advanced Field Artillery Tactical Data System (AFATDS); (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) and to other Army Joint and Allied systems. 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 provides the required 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 project 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 Software (CHS) project provides common hardware and software 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. These systems support the legacy to objective transition path of the Transformation Campaign Plan (TCP)

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Army Tac Comm & Cont Hardware & Software

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**

B. Program Change Summary	FY 2000	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2001 PB)	38970	33420	37335	0
Appropriated Value	39799	39420	0	
Adjustments to Appropriated Value	0	0	0	
a. Congressional General Reductions	0	0	0	
b. SBIR / STTR	-975	0	0	
c. Omnibus or Other Above Threshold Reprogrammings	1225	0	0	
d. Below Threshold Reprogramming	2994	0	0	
e. Rescissions	-179	-361	0	
Adjustments to Budget Years Since FY2001 PB	0	0	13552	
Current Budget Submit (FY 2002/2003 PB)	42864	39059	50887	0

Funding - FY 2000: Omnibus or Other Above Threshold Reprogrammings: Transfer of funds (-500) to O&M, Defense-Wide as directed in Section 219 of the Omnibus Consolidation Appropriation to help complete the Washington Square project, initiated by the Department of Defense in previous years. Army Transformation (+1875). Below Threshold Reprogramming: Part of AMDPCS UFR (+1402), DA reprogramming for JCF AWE (+2390), Maneuver Control Bill (+200K), Part of AMDPCS UFR and JTRS bill (-998).
FY 2001: $6M Congressional add for Next Generation Command & Control.
FY 2002: PBD 703 Plus Up of $13552 to C34 to finance SE&I costs for ATCCS under one funding line.
FY 2003: PBD 703 Plus Up of $13428 to C34 to finance SE&I costs for ATCCS under one funding line.

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Army Tac Comm & Cont Hardware & Software

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

June 2001

BUDGET ACTIVITY **5 - ENG MANUFACTURING DEV**	PE NUMBER AND TITLE **0604818A - Army Tac Comm & Cont Hardware & Software**	PROJECT **323**

COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
323 COMMON HARDWARE SYSTEMS	13681	12454	10281	0	0	0	0	0	0	0

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 vehicles (contracts) through which customers can acquire state-of-the-art common hardware/software and associated peripherals to meet developmental and fielding needs. The project also provides software technology support and command post internal structures within shelters. The common software supports Army, other Services and Joint systems. The CHS program is instrumental in digitizing the battlefield.

FY 2000 Accomplishments

- 2330 Continued management of the acquisition and delivery of CHS-2 equipment in support of customer requirements
- 369 Continued supporting customers testing efforts with CHS equipment
- 4000 Leveraged advanced 3-D display technologies for Army and other services
- 3853 Continued execution of common hardware, software technology and software reuse programs
- 1699 Continued developing and upgrading Defense Information Infrastructure Common Operating Environment (DII COE) products/integrating into ABCS systems and other Army systems
- 1430 Continued exploring state of the art technology insertion in support of ABCS programs

Total 13681

0604818A (323)
COMMON HARDWARE SYSTEMS

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Budget Item Justification

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**323**

FY 2001 Planned Program

•	2619	Continue management of the acquisition and delivery of CHS-2 equipment in support of customer requirements
•	617	Continue supporting customers testing efforts with CHS equipment
•	6000	Next generation command and control system. Integration of the Army's Advanced Warfare Environment's commercial technology solution and architecture into the Army's legacy and emerging command and control systems.
•	322	Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) programs
•	2896	Continue technology insertion and ABCS integration efforts

Total 12454

FY 2002 Planned Program

•	2130	Continue management of the acquisition and delivery of CHS-2 equipment in support of customer requirements
•	5000	Initiate follow-on CHS ABCS Information Technology (AIT) contract requirements effort (CHS-3)
•	743	Continue supporting customers testing efforts with CHS equipment
•	2408	Continue technology insertion and ABCS integration efforts

Total 10281

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 software. Four NDI hardware versions are available to meet specific needs of each Battlefield Functional Area (BFA): handheld, portable, transportable and lightweight computer unit.

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**323**

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
LCU contract expires		3Q		0	0	0	0	0
CHS-2 Technology Insertion (continuous)	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Initiate follow-on CHS ABCS Information Technology (AIT) Contract Requirements effort (CHS-3)			1Q	0	0	0	0	0
CHS AIT contract award (CHS-3)				0	0	0	0	0
Delivery of AIT V2 initial production hardware (CHS-3)				0	0	0	0	0
CHS-2 contract expires				0	0	0	0	0

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COMMON HARDWARE SYSTEMS

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Exhibit R-2A
Budget Item Justification

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604818A - Army Tac Comm & Cont Hardware & Software

PROJECT
323

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . CHS Integrated Product Team - Testing/Logistics/Safety/Technical Writing Support and CHS-3 Efforts	MIPR	CECOM Matrix Support, Fort Monmouth, NJ	19933	725	1-2Q	1130	1-2Q	0	0	0	0	0
b . CHS-2 Program Support		PM ATCCS In-House Govt Support, Fort Monmouth, NJ	19950	1621		1886		0	0	0	0	0
c . Technical Insertion/ABCS Integration Efforts	FFP/IDIQ	General Dynamics, Taunton, MA	7177	2896	1-3Q	2408		0	0	0	0	0
d . Contractor Support - Engineering/Logistics/CHS-2 Ordering and CHS-3 Efforts	Competitive/ T&M	PM ATCCS, Fort Monmouth, NJ	31792	617	1-3Q	4248	1-3Q	0	0	0	0	0
e . Hi-Tech Software Contract	Competitive/ T&M	CSC, Fort Monmouth, NJ office	7754	0		0		0	0	0	0	0
f . Systems Engineering Support	MIPR	MITRE (FFRDC), Eatontown and Fort Monmouth, NJ office	9518	390	1Q	390	1Q	0	0	0	0	0
g . 3-D Display Technology		Concurrent Technology Corporation, PA	4000	6000		0		0	0	0	0	0

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COMMON HARDWARE SYSTEMS

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Cost Analysis

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**323**

I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			100124	12249		10062		0		0	0	0

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . In-House - Overhead/Secretary/Program Analyst		PM ATCCS, Fort Monmouth, NJ	0	205		219		0	0	0	0	a . 0
Subtotal:			0	205		219		0		0	0	0

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COMMON HARDWARE SYSTEMS

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Cost Analysis

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**323**

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 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 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0
Project Total Cost:			100124	12454		10281		0		0	0	0

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COMMON HARDWARE SYSTEMS

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Cost Analysis

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit) | June 2001

BUDGET ACTIVITY 5 - ENG MANUFACTURING DEV	PE NUMBER AND TITLE 0604818A - Army Tac Comm & Cont Hardware & Software	PROJECT 334

COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
334 COMMON SOFTWARE	0	4568	4720	0	0	0	0	0	0	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 Defense Information Infrastructure Common Operating Environment (DII COE). The CS project provides state-of-the-art software technologies. The CS program is a cornerstone in the Army's battlefield digitization efforts.

FY 2000 Accomplishments

        Funded in D323.

FY 2001 Planned Program

- 913   Continue the management of the acquisition and delivery of CS and Commercial off the Shelf (COTS) products in support of Army and Joint Service customer requirements.
- 3519   Continue execution of the common software technology and reuse program, continue supporting customer integration and testing, continue the exploration and evaluation of new software technologies in support of the overall CS program and continue developing, upgrading and delivery of DII COE products into Army and Joint Service systems.
- 136   Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR)Programs.

Total   4568

BUDGET ACTIVITY **5 - ENG MANUFACTURING DEV**	PE NUMBER AND TITLE **0604818A - Army Tac Comm & Cont Hardware & Software**	PROJECT **334**

FY 2002 Planned Program

- 859 Continue the management of the acquisition and delivery of CS and COTS products in support of Army and Joint Service customer requirements.

- 3861 Continue execution of the Common Software technology and reuse program, continue supporting customer integration and testing, continue the exploration and evaluation of new software technologies in support of the overall CS program and continue developing, upgrading and delivery of DII COE products into Army and Joint Service systems.

Total 4720

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

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 and Joint Services. This strategy will be realized through defined Application Program Interfaces (APIs), standardized protocols, reusable software and standard commercial products.

D. Schedule Profile: Not applicable for this item.

Delivery of software is every six months.

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604818A - Army Tac Comm & Cont Hardware & Software

PROJECT
334

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Matrix-CECOM	MIPR	Fort Monmouth, NJ	0	362	1-3Q	365	1-3Q	0	0	0	0	0
b . In-House		PM ATCCS, Fort Monmouth, NJ	0	338	1-4Q	279	1-4Q	0	0	0	0	0
c . Misc Contracts	MIPR	GSA	0	66	1-3Q	70	1-3Q	0	0	0	0	0
d . CSC	Competitive with options	Computer Science Corp, Falls Church, VA	0	3453	1-3Q	3791		0	0	0	0	0
e . SBIR/STTR			0	136	2Q	0		0	0	0	0	0
Subtotal:			0	4355		4505		0		0	0	0

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COMMON SOFTWARE

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ARMY RDT&E COST ANALYSIS(R-3)　June 2001

| BUDGET ACTIVITY 5 - ENG MANUFACTURING DEV | | PE NUMBER AND TITLE 0604818A - Army Tac Comm & Cont Hardware & Software | | | | | | | | | | PROJECT 334 |

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . In-House		Ft. Monmouth, NJ	0	213		215		0	0	0	0	0
Subtotal:			0	213		215		0		0	0	0

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 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 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0
Project Total Cost:			0	4568		4720		0		0	0	0

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

June 2001

BUDGET ACTIVITY **5 - ENG MANUFACTURING DEV**	PE NUMBER AND TITLE **0604818A - Army Tac Comm & Cont Hardware & Software**	PROJECT **C34**

COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
C34 ARMY TAC C2 SYS ENG	21715	16065	27951	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: Project DC34 - Army Tactical C2 Systems (ATCCS) Engineering: 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 program, a component of the Army Battle Command System (ABCS). The effort to achieve horizontal integration of the ATCCS 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. Within the SE&I line, requirements accomplished are System of Systems Engineering and Integration. Additionally, a key component of the overall effort is the Central Technical Support Facility (CTSF) located ast 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.

FY 2000 Accomplishments

- 346   Conducted and supported system configuration management /development and support
- 1874   Continued ABCS/AWE Integrated Logistics Support
- 1092   Continued ABCS/AWE Testing and Evaluation of all BFA fielded software
- 575   Continued ABCS/AWE Fielding/Scheduling
- 1927   Continued ABCS /AWE information engineering
- 430   Conducted and supported system interoperability engineering
- 277   Continued exploring state of the art technology insertion in support of the ABCS program
- 242   Continued development and implementation of the ABCS information assurance

BUDGET ACTIVITY **5 - ENG MANUFACTURING DEV**	PE NUMBER AND TITLE **0604818A - Army Tac Comm & Cont Hardware & Software**	PROJECT **C34**

FY 2000 Accomplishments (Continued)

- 2687   Continued ABCS/AWE System of Systems Engineering and Integration
- 8000   Central Technical Support Facility (CTSF-TD) efforts to meet the Army's digital fielding requirements.
- 2390   Joint Contingency Force (JCF) AWE Support
- 1875   Initial Biragade Combat Team Support

Total 21715

FY 2001 Planned Program

- 1531   Continue ABCS/AWE Integrated Logistics Support/configuration management
- 1098   Continue ABCS/AWE Testing and Evaluation of all BFA fielded software
- 457   Continue ABCS/AWE Fielding/Scheduling
- 1614   Continue ABCS/AWE information engineering
- 523   Conduct and supported system interoperability engineering
- 273   Continue exploring state of the art technology insertion in support of the ABCS program
- 295   Continue development and implementation of the ABCS information assurance
- 1796   Continue ABCS/AWE System Engineering and Integration
- 8000   Central Technical Support Facility Technical Division (CTSF-TD) efforts to meet the Army's digital fielding requirements.
- 478   Small Business Innovative Reserach/Small Business Technology Transfer (SBIR/STTR) programs

Total 16065

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ARMY TAC C2 SYS ENG

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BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**C34**

FY 2002 Planned Program

•	333	Continue ABCS/AWEIntegrated Logistics Support/configuration management
•	865	Continue ABCS/AWE Testing and Evaluation of all BFA fielded software
•	1702	Continue ABCS/AWE Fielding/Scheduling
•	1500	Continue DD2-N Support
•	1926	Continue ABCS/AWE information engineering
•	638	Conduct and support system interoperability engineering
•	327	Continue exploring state of the art technology insertion in support of the ABCS program
•	809	Continue development and implementation of the ABCS information assurance
•	5156	Continue ABCS/AWE System Engineering
•	5500	Continue System of System Development
•	8000	Central Technical Support Facility Technical Division (CTSF-TD) efforts to meet the Army's digital fielding requirements.
•	1195	Continue System/Equipment DA Mandated Interoperability Certification

Total 27951

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 insure an interoperable and affordable ATCCS. The Program Executive Officer for Command , Control, and Communications (PEO C3S) has planned an evolutionary approach to fielding ATCCS as soon as possible.

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ARMY TAC C2 SYS ENG

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Budget Item Justification

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

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BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**C34**

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
DIGITAL CAPSTONE EXERCISE		2Q		0	0	0	0	0
FIRST DIGITIZED DIVISION		1Q		0	0	0	0	0
ABCS 6.2.1		3Q		0	0	0	0	0
PRAIRIE WARRIOR		3Q		0	0	0	0	0
ABCS 7.0 SOFTWARE INTEGRATION			2Q	0	0	0	0	0
NTC 00-05			2Q	0	0	0	0	0
ABCS 7.0 SOFTWARE INTEGRATION			2Q	0	0	0	0	0
2ND IBCT FIELDING			4Q	0	0	0	0	0
ROVING SANDS				0	0	0	0	0
3RD IBCT FIELDING				0	0	0	0	0
SECOND DIGITIZED DIVISION (2DD)				0	0	0	0	0
Second Digitized Division (2DD)				0	0	0	0	0
Digitized Corps				0	0	0	0	0
4TH IBCT FIELDING				0	0	0	0	0
101ST AA (Air Assault)				0	0	0	0	0
Digitize XVIII Corps				0	0	0	0	0
5TH IBCT FIELDING				0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)												June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**C34**

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . TRW	PWD	Fort Monmouth, NJ/Fort Hood, TX	1910	709	1Q	3634	1Q	0	0	0	0	a . 0
b . CSC	PWD	Fort Monmouth, NJ/Fort Hood, TX	12804	2084	2Q	6594	2Q	0	0	0	0	b . 0
c . MITRE	PWD	Ft Monmouth, NJ/Eatontown, NJ	8099	3402	1Q	2632	1Q	0	0	0	0	c . 0
d . MANTECH (Direct Labor)	PWD	Fort Monmouth, NJ/Fort Hood, TX	2470	1926	2Q	2627	2Q	0	0	0	0	d . 0
e . EPG	MIPR	Fort Huachuca, AZ	800	628	1Q	785	1Q	0	0	0	0	e . 0
f . CAMBER (Config Mgt/Testing)	PWD	Fort Hood, TX	0	725	1Q	785	2Q	0	0	0	0	f . 0
g . NICHOLS	MIPR	Fort Hood, TX	0	0		554	3Q	0	0	0	0	g . 0
h . ROBBINS-GIOIA	PWD	Fort Monmouth, NJ/Fort Hood, TX	1005	784	1Q	1300	1Q	0	0	0	0	h . 0
i . RAYTHEON	PWD	Fort Monmouth, NJ/Fort Hood, TX	0	0		250	1Q	0	0	0	0	i . 0
j . LOCKHEED MARTIN	MIPR	Eatontown, NJ	0	732	1Q	2500	1Q	0	0	0	0	j . 0

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ARMY TAC C2 SYS ENG

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Exhibit R-3
Cost Analysis

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604818A - Army Tac Comm & Cont Hardware & Software

PROJECT
C34

I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
k . GTE (Labor and Equipment)	PWD	Fort Hood, TX	997	777	1-4Q	407	1-4Q	0	0	0	0	0
l . Misc Contracts	PWD	Fort Monmouth, NJ/Fort Hood, TX	3143	501	1-2Q	711	1-2Q	0	0	0	0	0
m . Unixpros	PWD	Eatontown, NJ	1045	815	1Q	1851	1Q	0	0	0	0	0
n . ATSC	MIPR	Fort Leavenworth, KY	500	390	2Q	350	2Q	0	0	0	0	0
o . IDA	MIPR	Fort Monmouth, NJ	300	234	2Q	400	2Q	0	0	0	0	0
p . ITT	PWD	Eatontown, NJ	1070	0		0		0	0	0	0	0
q . SAIC	PWD	Eatontown, NJ	0	96	1Q	96	1Q	0	0	0	0	0
r . ILEX	PWD	Fort Hood, TX	0	0	1Q	333	1Q	0	0	0	0	0
s . BOOZ-ALLEN	PWD	Eatontown, NJ	0	0		750	2Q	0	0	0	0	0
Subtotal:			34143	13803		26559		0		0	0	0

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ARMY TAC C2 SYS ENG

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ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**C34**

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . In-House Support	MIPRs	Fort Monmouth, NJ/Fort Hood, TX	4389	399	1Q	300	1Q	0	0	0	0	0
b . CECOM Matrix	MIPRs	Fort Monmouth, NJ/Fort Hood, TX	615	590	1Q	1052	1Q	0	0	0	0	0
c . Other Government Support	MIPRs	Fort Monmouth, NJ/Fort Hood, TX/Fort Belvoir, VA	1778	1273	1Q	40	2Q	0	0	0	0	0
Subtotal:			6782	2262		1392		0		0	0	0

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0

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ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**C34**

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0
Project Total Cost:			40925	16065		27951		0		0	0	0

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ARMY TAC C2 SYS ENG

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**C39**

COST (In Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
C39 TACTICAL OPERATIONS CENTERS (TOCS)	7468	5972	7935	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: Tactical Operations Centers (TOCs) support the overall mission area of "Exercising Command and Control". The TOC program provides commanders and staffs (at all echelons of command from battalion to corps) with integrated digitized command and control facilities. The commander executes battle command and makes decisions based on objective data and his intuitive feel for the battle. To perform these functions, he and his staff require command, control and communications systems integrated on mobile platforms capable of keeping pace with maneuver forces. The TOC program provides the integrated digitized physical infrastructure (platforms and networks) that operates under all conditions on the modern battlefield and provides the real-time situational understanding (Common Operating Picture) inherent in the command and control systems that comprise the Army Battle Command System (ABCS). These digitized TOCs are key to ensuring that information superiority and force synchronization are gained on the tactical and operational battlefield. TOCs are required for all types of combat, combat support and combat service support units. The program is critical to Army modernization/transformation. The RDT&E Program provides continued suppot to prototype TOCs developed for the Division XXI Advanced Warfighting Experiment (AWE). Develops and matures the enabling technologies required to meet the ABCS Capstone Requirements Document (CRD). Develops TOC designs for the First Digitized Corps/Divisions and the tranformation force. Examples of efforts requiring technology development are: voice, video and data over the Local Area Network (LAN) that will provide the commander with "virtual" TOC with no need for physical proximity and a Command Information Center (CIC) that links the entire staff and displays relevant information feed in real-time throughout the TOC.

FY 2000 Accomplishments

- 1900   Sustain Division XXI prototype TOCs
- 1261   Develop enabling technologies and technology insertion
- 4207   System and design engineering for FDD

Total   7368

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Tactical Operations Centers (TOCs)

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Exhibit R-2A
Budget Item Justification

BUDGET ACTIVITY **5 - ENG MANUFACTURING DEV**	PE NUMBER AND TITLE **0604818A - Army Tac Comm & Cont Hardware & Software**	PROJECT **C39**

FY 2001 Planned Program

•	2215	Sustain Division XXI prototype TOCs
•	2551	System and design engineering for 4th ID, 2nd CAV Division and IBCT
•	807	Develop enabling technologies and technology insertion
•	221	ABCS SE&I
•	178	SBIR/STTR

Total   5972

FY 2002 Planned Program

•	2325	Sustain Division XXI Prototype TOCs
•	4620	System and design engineering for 1st CAV and IBCT (Transformation Forces)
•	990	Develop enabling technologies and technology insertion

Total   7935

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)	June 2001

BUDGET ACTIVITY 5 - ENG MANUFACTURING DEV	PE NUMBER AND TITLE 0604818A - Army Tac Comm & Cont Hardware & Software	PROJECT C39

B. Other Program Funding Summary	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
Other Procurement Army 2 - SSN: BZ9865	34777	57606	38952	0	0	0	0	0	0	0

C. Acquisition Strategy: The acquisition strategy relies heavily on non-developmental items (NDI) and Government-furnished equipment (GFE) to design, integrate, assemble, test, train, and field Tactical Operations Centers (TOCs) for FDD, SDD, III Corps adn IBCTs. Sustainment of existing prototype Div XXI AWE TOCs will continue into FY 04.

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Design Reviews	4Q	4Q	4Q	0	0	0	0	0
Interoperability Demonstration	4Q	3Q	1Q	0	0	0	0	0

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Tactical Operations Centers (TOCs)

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Exhibit R-2A
Budget Item Justification

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**C39**

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . TRW	SS/CPFF	Huntsville, AL	5304	1908	2Q	2894	1Q	0	0	0	0	0
b . Motorola	C/CPFF	Huntsville, AL	4915	2683	1-2Q	3941	1-2Q	0	0	0	0	0
c . In-House/Gov't Support	Various	Various	1460	782	2Q	900	1-2Q	0	0	0	0	0
d . SBIR/STTR			0	178	1-2Q	0		0	0	0	0	0
e . ABCS SE& I			0	221	1Q	0		0	0	0	0	0
Subtotal:			11679	5772		7735		0		0	0	0

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . SETA	Various	Various	200	200	3Q	200	2Q	0	0	0	0	Continue
Subtotal:			200	200		200		0		0	0	Continue

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Tactical Operations Centers (TOCs)

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ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604818A - Army Tac Comm & Cont Hardware & Software**	**C39**

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 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 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0
Project Total Cost:			11879	5972		7935		0		0	0	Continue

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Tactical Operations Centers (TOCs)

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Exhibit R-3
Cost Analysis