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

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

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		27896	61254	122644	0	0	0	0	0	0	0
097	C3I INTEROP NETWORK	1996	1879	1913	0	0	0	0	0	0	0
098	TAC RADIO ACCESSORIES	0	2170	0	0	0	0	0	0	0	0
485	C4I SYS CERTIFICATION	4317	3961	3999	0	0	0	0	0	0	0
589	ARMY SYS ENGINEERING & WARFIGHTING TECH SUP	11619	8334	8451	0	0	0	0	0	0	0
591	WPN SYS TECH ARCH (WSTA)	2340	2433	2406	0	0	0	0	0	0	0
615	JTRS-GROUND DOMAIN INTEGRATION	5836	28281	104034	0	0	0	0	0	0	0
629	TACTICAL COMMUNICATIONS SYSTEM - ENGINEERING DEVEL	1788	14196	1841	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.

This Program Element (PE) supports efforts to develop interoperability of Army programs and products, horizontally and vertically for the digitized battlefield. Project D097 supports development of the C4I Interoperability Network. Also included is the Army portion of engineering development efforts is support of the Combat Survivor Evader Locator System (CSEL) in Project D098. This includes follow-on programs to demonstrated technologies evolving from Wireless Network Access, Communications Network Planning and Management and initiatives to establish a Multiband Radio Integrated testbed. Project D485 supports C4I Systems Certification. It evaluates system's interoperability for the Army XXI battlefield digitization effort, in support of the Vice Chief of Staff of the Army (VCSA) and Army Acquisition Executive (AAE), to identify interoperability issues, develop certification recommendations, and provide architecture assessments by the Digital Integration Lab (DIL). Project D589 Army Systems Engineering & Warfighter Technical Support efforts is recommended by the Army Science Board and directed by the Army Acquisition Executive (AAE) and Vice Chief of Staff of the Army (VCSA). The ASE provides essential technology expertise on all Systems Engineering and Technical Architecture (SE/TA) matters critical to gain Information Dominance and foster interoperability among all Army systems. The Weapons Systems Technical Architecture, Project D591, supports development of the Joint Technical Architecture-Army (JTA-A) which provides the 'building code" foundation for designing, building, fielding, and supporting interoperable systems in an expedient and cost-effective manner. Project D615 supports the Near Term Digital Radio System (NTDRS) and the Army Joint Tactical Radio System (JTRS). The NTDRS is not a new start: It was funded in PE 0603713A, D370 in FY2000/2001 & prior and in D615 beginning in FY2000. The Army development effort for the Joint Tactical Radio System (JTRS) hardware development is funded in PE 0603173A, Project D370 in FY2000 and in Project D615 beginning in FY 2001. Project D629, Tactical Communications System - Demonstration Validation, provides for insertion of selected proven communications technology from program elements 0602782A, Project AH92 applied research and 0603006A, advanced technology development, into the next

phase of development. Note: This is not a new start effort, previously this effort was funded under PE/Proj. 0603805A/D246. The Applied Communications and Information Networking (ACIN) project provides for the evaluation and capitalization of emerging commercial communications and networking technologies by leveraging advances, influencing development efforts, influencing standards and delivering technical solutions in support of emerging architectures (JTA-A). This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

B. Program Change Summary	FY 2000	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2001 PB)	23836	49316	97718	0
Appropriated Value	23987	61816	0	
Adjustments to Appropriated Value	0	0	0	
a. Congressional General Reductions	0	0	0	
b. SBIR / STTR	-540	0	0	
c. Omnibus or Other Above Threshold Increases	1018	0	0	
d. Below Threshold Reprogramming	3500	0	0	
e. Rescissions	-69	-567	0	
Adjustments to Budget Years Since FY2001 PB	0	0	24926	
Current Budget Submit (FY 2002/2003 PB)	27896	61249	122644	0

Funding - FY 2000: Omnibus or Other Above Threshold: Inflation Adjustment (-82) & Army Transformation funds (+1100K); Below Threshold Reprogramming: Army reprogram JCF AWE funds (+3500k). In FY2002, Army adjustments reflect Program Budget Decision 817 which provides a plus up of $25M to

Project D615 for the JTRS program for risk reduction efforts to acquire sufficient near-term hardware and software capability and a net decrease of (-$74K) resulting from previous adjustments due to Program budget decision for Systems Integration and Engineering. In FY2003, Army adjustments reflect the net decrease due to Program Budget Decision for Systems Integration and Engineering.

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604805A - Command, Control and Communications Sys Eng Dev**	**097**

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
097	C3I INTEROP NETWORK	1996	1879	1913	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: Project D097 - C3I Interoperability Network: Provide interoperability/integration support for the development and implementation of the Army Modernization, Joint and Coaltion, and Objective Force architectures by providing a virtual command, control, communications, computer, intelligence, electronic warfare and sensor (C4IEWS) Digital Integration Lab (DIL). Speciifically the DIL supports the integrations of Army's programs and products, horizontally and vertically for the digitized battlefield, by replicating current and future tactical battlefield environments (including Joint and Allied interoperability environments). To attain this goal, utilize on-site and electronically interconnected remote C4IEWS systems, labs/testbeds, field/integration sites, developers facilities and Battle Labs to enable/facilitate comprehensive evaluations of new prototypes, evolutionary system developments, new technologies, commercial products, software and systems interoperability. Develop and apply protocol test tools to assure the capability to support and assess interoperability and compliance with the Joint/Army Technical Architecture's Variable Message Format (VMF) and MIL-STD-188-220 protocol standards suites. This program supports the Legacy to Objective transition path of the Army Transformation Campaign Plan (TCP).

FY 2000 Accomplishments

- 380 Provide external DIL connectivity to remote battlefield digitization sites for digitization experimentation and tests.
- 764 Upgrade, operate and support DIL Evaluation & Certification Testbed and other facilities supporting experiments/certifications needed for battlefield digitization for Army FDD, Y2K, Joint (e.g. Joint Contingency Force AWE) as well as STO/ACTD/ATD experimentation and evaluations.
- 100 Acquire/update DIL hardware and software interfacing systems, test tools, and supporting systems for 1st Digitized Division and TA/SA evaluations
- 126 Acquire DIL automated scenario drivers and test analysis tools for FDD evaluations and TA/SA evaluations.
- 186 188-220 Protocol Test Tool (Monitor/Decoder) development to support Sync Mode, common PTT components.
- 100 188-220 Protocol Test Tool (Conformance Tester V2) development; develop version 220B.
- 50 188-220 Protocol Test Tool (Network Analyzer V1) development; Supports Net troubleshooting & Net performance.
- 90 VMF Test Tool development and On-site support
- 70 Develop/Field VMF Reissue 3 VMF tool database

FY 2000 Accomplishments (Continued)

- 130 VTT Message Generation Scripting

Total 1996

FY 2001 Planned Program

- 380 Provide external DIL connectivity to remote battlefield digitization sites for digitization experimentation and tests.
- 638 Upgrade, operate and support secure DIL Evaluation & Certification Testbed and other facilities supporting experiments/certifications needed for battlefield digitization for Army FDD, Joint Forces as well as STO/ACTD/ATD experimentation and evaluations related to Objective Force development.
- 100 Acquire/update DIL hardware and software interfacing systems, test tools, and supporting systems for 1st Digitized Division and TA/SA evaluations
- 127 Acquire DIL automated scenario drivers and test analysis tools for FDD evaluations and TA/SA evaluations.
- 150 188-220 Protocol Test Tool (Monitor/Decoder) development to support Sync Mode, common PTT components.
- 140 VTT Message Generation Scripting
- 100 188-220 Protocol Test Tool (Conformance Tester V3) development; develop version 220C.
- 50 188-220 Protocol Test Tool (Network Analyzer V2) development; supports Net troubleshooting & Net performance.
- 88 VMF Test Tool development and On site support
- 70 Develop/Field VMF Reissue 4 VMF tool database
- 36 Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) Program

Total 1879

FY 2002 Planned Program

•	380	Provide external DIL connectivity to remote battlefield digitization sites for digitization experimentation, and tests.
•	702	Upgrade, operate and support DIL Evaluation & Certification Testbed and other facilities supporting experiments/certifications needed for battlefield digitization for Army Second Digitized Division (SDD) and First Digitized Corps (FDC) digitization efforts, Joint, Allied as well as STO/ACTD/ATD experimentation and evaluations related to Objective Force development.
•	100	Acquire/update DIL hardware and software interfacing systems, test tools, and supporting systems for SDD,FDC,and Objective Forces.
•	127	Acquire DIL automated scenario drivers and test analysis tools for SDD and FDC evaluations and TA/SA evaluations.
•	150	188-220 Protocol Test Tool (Monitor/Decoder) development to support Sync Mode, common PTT components.
•	100	188-220 Protocol Test Tool (Conformance Tester V4) development; develop version 220D.
•	50	188-220 Protocol Test Tool (Network Analyzer V3) development; supports Net troubleshooting & Net performance.
•	94	VMF Test Tool development and On-site support
•	70	Develop/Field VMF Reissue 5 VMF tool database
•	140	VTT Message Generation Scripting
Total	1913	

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

C. Acquisition Strategy: The efforts funded in this project are non-system specific, supporting interoperability across multiple systems. The contractual efforts/services are obtained from existing competitive omnibus support services contracts.

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Maintain and upgrade remote connectivity between digitization sites	1-4Q	1-4Q	1-4Q	0	0	0	0	0
DIL Testbed support for FDD, JCF AWE, SDD, FDC & Other AWE/ATD's/ACTD's	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Acquire DIL testbed systems to support message compliance certification	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Develop, maintain, certify Protocol test tool (PTT)	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Develop, maintain, certify VMF test tool (VTT)	1-4Q	1-4Q	1-4Q	0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
097

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 . Labor (internal Govt)		USACECOM, Fort Monmouth, NJ	1758	800		800		0	0	0	0	0
b . Travel		USACECOM, Fort Monmouth, NJ	51	15		15		0	0	0	0	0
c . SBIR/STTR Program			0	36		0		0	0	0	0	0
Subtotal:			1809	851		815		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 . System Engineering	C/CPFF	Arinc, Fort Monmouth, NJ	2132	467		499		0	0	0	0	0
b . Development Support	C/CPFF	BAE, Fort Monmouth, NJ	40	40		40		0	0	0	0	0
c . Development Support	C/CPFF	CSC, Fort Monmouth, NJ	300	150		157		0	0	0	0	0
d . Development Support	C/CPFF	C3I, Fort Monmouth, NJ	415	245		265		0	0	0	0	0
e . Security Engineering	C/CPFF	Nations, Fort Monmouth, NJ	51	30		30		0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
097

II. Support Cost (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
f. Equipment	FFP	USA CECOM	550	96		107		0	0	0	0	0
Subtotal:			3488	1028		1098		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:			5297	1879		1913		0		0	0	0

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604805A - Command, Control and Communications Sys Eng Dev**	**485**

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
485	C4I SYS CERTIFICATION	4317	3961	3999	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: C4I Systems Certification: This Program Element (PE) supports efforts to develop interoperability of Army programs and products, horizontally and vertically for the digitized battlefield. Evaluate system's interoperability in support of the Army Enterprise Architecture (AEA) for the development and implementation of Army Modernization, Joint and Coalition, and Objective Force, which are in support of the Vice Chief of Staff of the Army (VCSA) and Army Acquisition Executive (AAE) initiatives. Specifically, identify interoperability issues, develop certification recommendations, and provide architecture assessments. The Digital Integration Lab (DIL) provides evaluation of systems' interoperability throughout the life cycle to identify interoperabilty issues as early as possible. The DIL, in support of the Army Systems Engineer and the Central Test Support Facility (CTSF) is the Army's messaging standards conformance authority. Establish and sustain interoperability between Army C4I systems, and between the Army and Joint/Allied C4I communities in support of DOD 4630.5, DODI 4630.8, CJSCI 6212.01, and AR73-1. Provide the Army focal point for the review, staffing, coordination, and development of Army positions for interface interoperability standards and specifications. Participate in Joint/Allied and intra-Army interoperability certification testing and represent the Army in the Joint/Allied Configuration Management Process. Develop and configuration manage two key elements of the Joint/Army Technical Architectures - the Variable Message Format (VMF) message and the MIL-STD-188-220 protocol standards, in support of Army Science Board directive and approved Technical Architectures. This program supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

FY 2000 Accomplishments

- 510 Evaluate and certify IT/C4ISR systems interoperability for FDD, Joint experiments to assure compliance with the Technical and System Architectures
- 500 Provide DIL System Engineering and Integration support for conduct of experiments and evaluations to support FDD, Joint Contingency Force AWE, Joint Tests, and testing related to development of ATD's and STO's
- 200 Provide systems engineering, integrated support & field support for identification and resolution of systems' discrepancies and inconsistencies identified during evaluations
- 524 Developed and published 188-220B and 47001C application header standards
- 310 Developed/Joint approved new VMF messages
- 320 Joint approved 43 VMF change proposals

FY 2000 Accomplishments (Continued)

•	65	Maintained VMF database and provided two new versions to customers
•	310	Conducted 6 Army and Joint Configuration control boards
•	580	Evaluated, processed and obtained approval of 1100 change proposals
•	738	Conducted 10 Joint certification testings to include 24 operational systems, and developed over 500 proplem reports for analysis by Joint services
•	260	Represented the Army in over 24 Joint TADILs, USMTF, OSD Tactical data Link Management plans TDLMP, Joint Interface Requirements
Total	4317	

FY 2001 Planned Program

•	479	Evaluate and certify IT/C4ISR systems interoperability for FDD, Joint experiments to assure compliance with the Technical and System Architectures
•	463	Provide DIL System Engineering and Integration support for conduct of experiments and evaluations to support FDD, Joint Tests, and testing related to development of ATD's and STO's
•	200	Provide systems engineering, integrated support & field support for identification and resolution of systems' discrepancies and inconsistencies identified during evaluations
•	409	Developed and published 188-220C and 47001D application header standards
•	325	Developed/Joint approved new VMF messages
•	332	Joint Approved 50 VMF change proposals
•	65	Maintained VMF database and provided two new versions to customers
•	210	Conducted 6 Army and Joint Configuration control boards
•	509	Evaluated, processed and obtained approval of 1100 change proposals
•	707	Conducted 10 Joint certification testings to include 30 operational systems, and developed over 500 proplem reports for analysis by Joint services
•	167	Represented the Army in over 24 Joint TADILs, USMTF, OSD Tactical data Link Management plans TDLMP, Joint Interface Requirements
•	95	Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) Program
Total	3961	

FY 2002 Planned Program

•	500	Evaluate and certify IT/C4ISR systems interoperability for FDD, Joint experiments to assure compliance with the Technical and System Architectures
•	482	Provide DIL System Engineering and Integration support for conduct of experiments and evaluations to support FDD, Joint Tests, and testing related to development of ATD's and STO's related to the development of the Objective Force.
•	200	Provide systems engineering, integrated support & field support for identification and resolution of systems' discrepancies and inconsistencies identified during evaluations
•	303	Developed and published 188-220D and 47001D application header standards
•	325	Developed/Joint approved new VMF messages
•	332	Joint approved 50 VMF change proposals
•	81	Maintained VMF data base and provided two new versions to customers
•	310	Conducted 8 Army and Joint Configuration control boards
•	549	Evaluated, processed and obtained approval of 1100 change proposals
•	750	Conducted 10 Joint certification testings to include 30 operational systems, and developed over 500 proplem reports for analysis by Joint services
•	167	Represented the Army in over 24 Joint TADILs, USMTF, OSD Tactical data Link Management plans TDLMP, Joint Interface Requirements
Total	3999	

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

C. Acquisition Strategy: The efforts funded in this project are non-system specific, interoperability experimentation, evaluation and certification across multiple systems. The contractual efforts/services are obtained from existing competitive omnibus support services contracts.

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Initial Brigade Combat Teams Experiments/Evaluations	3-4Q	1-4Q	1-4Q	0	0	0	0	0
Evaluate, certify systems for and support FDD	1-4Q	1-3Q		0	0	0	0	0
Evaluate, certify systems for and support Joint Contingency Force AWE	1-4Q			0	0	0	0	0
Evaluate, certify systems for the support Corps AWE			4Q	0	0	0	0	0
Evaluate, experiment, and provide systems integration for testing of ACTD, ATD, & STO's	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Experiment/Evaluate Jint Interoperability in conjunction with CIPO initiatives	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Conduct Joint/Coalition Experiments	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Evaluate, certify systems for and support SDD	4Q	1-4Q	1-4Q	0	0	0	0	0
Evaluate, certify systems for and support FDC			1-4Q	0	0	0	0	0
Support EMPRS WRAP with integration/interoperability experimentation		2-4Q	1-4Q	0	0	0	0	0
DOTE/JDEP Initial Concept/Evaluation/Experiments		1-4Q	1-4Q	0	0	0	0	0
Develop and maintain MIL-STD 188-220 B,C,D	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Develop and maintain 47001 standards	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Develop and maintain VMF Standards & standard databases	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Configuration Management and control of TADIL(A,B,J) and USMTF standards	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Represent Army on Army/DOD forums	1-4Q	1-4Q	1-4Q	0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

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BUDGET ACTIVITY
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PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
485

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 . Labor (internal Govt)		USACECOM , Fort Monmouth, NJ	4685	1507		1507		0	0	0	0	0
b . Travel		USACECOM, Fort Monmouth, NJ	110	50		50		0	0	0	0	0
c . SBIR/STTR			0	95		0		0	0	0	0	0
Subtotal:			4795	1652		1557		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 . Development Support	C/CPFF	Arinc, Fort Monmouth, NJ	3630	824		876		0	0	0	0	0
b . Development Support	C/CPAF	Telos, Fort Monmouth, NJ	2952	784		885		0	0	0	0	0
c . Development Support	C/CPFF	CSC, Fort Monmouth, NJ	1574	226		206		0	0	0	0	0
d . Development Support	C/CPFF	C3I, Fort Monmouth, NJ	1039	172		172		0	0	0	0	0
e . Development Support	SS/CPFF	Mitre, Fort Monmouth, NJ	280	0		0		0	0	0	0	0

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II. Support Cost (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
f . Technical Support	C/CPFF	Marconi, Fort Monmouth, NJ	110	38		38		0	0	0	0	0
g . Equipment	Reqn	USACECOM	185	100		100		0	0	0	0	0
h . Equipment (Development Support)	FFP	GTE, Tauton, MA	106	0		0		0	0	0	0	0
i . Telecommunications	MIPR	USASC, Fort Huachuca, AZ	660	165		165		0	0	0	0	0
Subtotal:			10536	2309		2442		0		0	0	0

Remarks: *Contracts/awards cited are 5 year (1 base + 4 option years). Future award dates imply future competitive award, contractor TBD.

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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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:			15331	3961		3999		0		0	0	0

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604805A - Command, Control and Communications Sys Eng Dev**	**589**

	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
589	ARMY SYS ENGINEERING & WARFIGHTING TECH SUP	11619	8334	8451	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: Army Systems Engineering & Warfighter Technical Support: The ASE provides essential technology expertise on all Systems Engineering and Technical Architecture (SE/TA) matters critical to gain Information Dominance and foster interoperability among all Army systems. The Joint Technical Architecture-Army (JTA-A) provides the "building code" foundation for designing, building, fielding, and supporting interoperable systems in an expedient and cost-effective manner. Army System Engineer (ASE) supports CIO/DISC4/ADO in defining and maintaining the JTA-A and technically influences development and implementation of the JTA. ASE identifies new and emerging standards for integration of new technologies into existing Army Systems and ATD/ACTDs to support Army 2010. The ASE's work efforts associated with the development and implementation of the JTA-A under this project are critical path elements to achieve the Army's DIV XXI, CORPS XXI, and Army XXI digitization mission and Army's Transformation to the Objective Force and to provide the ability to fight and win on tomorrow's battlefield, and assure compatibility with both Joint and Coalition Warfighters. WTS provides essential technical field expertise, on-site architectural/system analysis and execution planning to integrate emerging technologies and support the next generation of digitization across all 21st Century Battlefield Operating Systems. Promotes joint experiments in conjunction with Joint C4ISR Battle Center (JBC) to foster interoperability between Army Systems and those of other services both joint and coalition. WTS conducts interservice coordination to identify candidate systems, provides expert analysis to define appropriate architecture, evaluates notional designs and conducts performance/cost benefit analysis to recommend viable tradeoffs. Selects target architecture and works with warfighter to engineer appropriate field experiments (Battlelab Warfighter Experiments (BLWE), Army Warfighter Experiments (AWE) and warfighter rotations) to allow selection of appropriate systems and sub-systems for follow-on development and acquisition. Performs technical coordination/integration activities to accelerate system enhancements providing solutions to current user problems in the field capturing soldier ingenuity through on-the-spot soldier input/feedback. Supports development of the operational architecture and implementation of new warfighter information technologies throughout the force structure to achieve Army Enterprise Architecture (AEA) objectives. Develops notional technology driven C4ISR architectures for Army Experimentation Campaign Plan (AECP) in support of AEA. This program supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

FY 2000 Accomplishments

•	1260	Conduct Major design evaluations for Joint Technical Architecture-Army (JTA-A) Interoperability. System implementations: ABCS/ABCSLight, CMPS(COBRA), Land Warrior redesign V.1.0, Aviation Migration Planning.
•	1292	Ensure JTA-A Interop Implementation and Assess JTA-A compatibility for Army and S&T Programs. SSEB RFPS: Whole Logistics Modernization, RDFCS, BCT, FCS, TAIS, Aerial Common Sensor, Profiler.
•	779	Assess JTA-A interop for Army Systems. Ad Hoc assessments: Aviation JVMF proposal, aviation symbology, DII COE RDBMS analysis.
•	808	Technically influence the development/implementation of Joint Technical Architecture (JTA). JTA-A V6.0
•	591	Maintain existing JTA-A Information Technical Standards. ATM update/rewrite, imagery update/rewrite, update PKI stds profile with JIEO.
•	608	Investigate information technical standards for inclusion in JTA-A/JTA. Sensor payload integration with WSTAWG, IPv(6) assessment, Gigabit ethernet-I3A.
•	482	Technically influence commercial and international standards forums. MANET, TBRPF.
•	942	Engineer joint connections for C4IEWS research & development experiment with upgraded Enroute Mission Planning and Rehearsal System (EMPRS). Extend Joint Contingency Force (JCF) architecture into the joint architecture in conjunction with Joint Forces Command (JFCOM) and the Joint Battle Center. Participate in other Joint Architecture development.
•	785	Introduce early C4IEWS Army 2010 and Beyond concepts into existing programs. Conduct requirements oriented review of next generation tech base programs. Develop plans for the establishment of new ATDs, ACTDs that address emerging architectural deficiencies. Develop plans for the establishment of new ATDs, ACTDs that address emerging architectural deficiencies.
•	572	Integrate digitization technology down to soldier. Provide field engineering support to user experiments. Discover architectural deficiencies through participation in final stages of experiment and continue to enhance solutions to refine the architecture.
•	3500	Support for JCF AWE: ADA support, Central Technical Support Facility (CTSF) Exercise support, Systems engineering support, Integration of installation kits for division and PEO vehicles.
Total	11619	

FY 2001 Planned Program

•	1300	Conduct Major design evaluations for Joint Technical Architecture-Army (JTA-A) Interoperability.
•	1321	Ensure JTA-A Interop Implementation and Assess JTA-A compatibility for Army and S&T Programs.
•	800	Assess JTA-A interop for Army Systems.
•	815	Technically influence the development/implementation of Joint Technical Architecture (JTA).
•	566	Maintain existing JTA-A Information Technical Standards.
•	583	Investigate information technical standards for inclusion in JTA-A/JTA.
•	445	Technically influence commercial and international standards forums.
•	925	Support early BCT field experimentation. Engineer EMPRS system into Army Architecture. Extend digitization experiment to joint/coalition forces. Support the development of conceptual joint/coalition experiment of digitization across all force levels - Light, Medium and Heavy.
•	850	Plan and integrate early introduction to BCT/Future Combat Systems (FCS) fielding with total force digitized/network centric concept. Plan for next generation digitization systems. Incorporate after action, lesson learned transition into Objective Force.
•	532	Implement distributive/network centric concepts to Force XXI. Engineer product improvement/technical insertion into BCT fielding.
•	197	Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) Program
Total	8334	

FY 2002 Planned Program

•	1350	Conduct Major design evaluations for Joint Technical Architecture-Army (JTA-A) Interoperability.
•	1321	Ensure JTA-A Interop Implementation and Assess JTA-A compatibility for Army and S&T Programs.
•	800	Assess JTA-A interop for Army Systems.
•	811	Technically influence the development/implementation of Joint Technical Architecture (JTA).
•	623	Maintain existing JTA-A Information Technical Standards.
•	640	Investigate information technical standards for inclusion in JTA-A/JTA.
•	506	Technically influence commercial and international standards forums.

FY 2002 Planned Program (Continued)

- 950 Extend C4ISR architecture into a joint experiment in conjunction with JFCOM/JBC and TRADOC. Nominate a joint C4ISR ACTD. Assess JTF Rear and Forward information support capabilities for interoperability. Participate in Joint Architecture development.
- 850 Plan and integrate the evolution of AECP initiatives in BCT/Future Combat System (FCS). Plan for BCT/FCS transition strategy. Engineer technical insertion of C4ISR into Objective Force.
- 600 Interact with warfighters and provide field engineering support to future user experiments. Discover architectural deficiencies through participation in final stages of experiments. Provide potential technical solutions to the PM's PEO and OA/SA IPT's.

Total 8451

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

C. Acquisition Strategy: The efforts funded in the project are non-system specific, therefore no acquisition strategy is provided.

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
TA - JTA-A 6.0	3Q			0	0	0	0	0
TA - JTA-A 7.0			1Q	0	0	0	0	0
TA - JTA 4.0		2Q		0	0	0	0	0
TA - JTA-A 8.0				0	0	0	0	0
TA - JTA 5.0			3Q	0	0	0	0	0
SA - 1DFSA Updates	2Q	2Q		0	0	0	0	0
SA - AMC-ISA V2.0		1Q	1Q	0	0	0	0	0
SA-BCT Initial/Interim	4Q			0	0	0	0	0
SA-2DFSA Updates	2Q	2Q		0	0	0	0	0
SA - 1DCSA Updates	2Q	2Q		0	0	0	0	0
SA - I3A Updates	3Q	3Q		0	0	0	0	0
AECP Field Experimentation Support		4Q		0	0	0	0	0
Joint Architectural Development			3Q	0	0	0	0	0
JCF AWE R&D Architecture Joint Experiment Engineering		2Q		0	0	0	0	0

D. Schedule Profile (continued)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
AECP Initiative Integration		4Q	4Q	0	0	0	0	0
JCF AWE Initiative Implementation	2Q			0	0	0	0	0
JCF AWE Support	4Q			0	0	0	0	0
Army 2010 and Beyond Concept Introduction	1Q			0	0	0	0	0
AECP to BCT/FCS Transition Strategy Engineering		4Q	3Q	0	0	0	0	0
JCF AWE After Action Technology Insertions		2Q		0	0	0	0	0
Objective Force Technical C4I Concept Support		3Q	3Q	0	0	0	0	0
Joint/Coalition Concept Integration		1Q	2Q	0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
589

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 . Government Systems Engineering Support		ASEO, Fort Monmouth, NJ	4579	1784		1880		0	0	0	0	0
b . Engineering Support		ISEC, Fort Huachuca, AZ	842	250		250		0	0	0	0	0
c . Contract Systems Engineering Support	C & FPI	CSC, Eatontown, NJ	3521	1096		1158		0	0	0	0	0
d . Contract Systems Engineering Support	SS & FP	MITRE, Tinton Falls, NJ	2264	798		970		0	0	0	0	0
e . Contract Systems Engineering Support	C & FP	GTE/BBN, Cambridge, MA	410	600		600		0	0	0	0	0
f . Contract Systems Engineering Support	C & FP	Litton, Reading, MA	245	0		0		0	0	0	0	0
g . Contract Systems Engineering Support	C & FP	Battelle, Alexandria, VA	300	200		100		0	0	0	0	0
h . Contract Systems Engineering Support	C & FP	SRI, Menlo Park, CA	0	200		200		0	0	0	0	0
i . Contract Systems Engineering Support	C & FP	SRC, Atlanta, GA	302	140		140		0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
589

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
j . Contract Systems Engineering Support	C & FP	HTPi, Shrewsbury, NJ	125	300		300		0	0	0	0	0
k . Contract Systems Engineering Support	C & FP	Gemini, Billerica, MA	137	78		68		0	0	0	0	0
l . Systems Engineering and Integration		WTS - ISIO CECOM, Fort Monmouth, NJ	1111	833		875		0	0	0	0	0
m . Contract Support	C & T&M-R	C3ISGI, Tinton Falls, NJ	1580	980		0		0	0	0	0	0
n . Contract Support	C & T&M	TBD	0	0		1275		0	0	0	0	0
o . Contract Support	C & T&M	SAIC, Falls Church, VA	932	259		0		0	0	0	0	0
p . Contract Support	C & T&M	PTG, Springfield, VA	88	0		0		0	0	0	0	0
q . Contract Support	C & T&M	Datron, Simi Valley, CA	305	0		0		0	0	0	0	0
r . System Development and Integration		PEO C3S, PM TOCS, Fort Monmouth, NJ	25	0		0		0	0	0	0	0
s . Contract Support	C & FP	CSC, Eatontown, NJ	1600	0		0		0	0	0	0	0
t . Contract Support	C & FP	TRW, Domingues Hills, CA	1281	0		0		0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
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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
u . Contract Support	C & FP	Lockheed Martin, Eatontown, NJ	545	0		0		0	0	0	0	0
v . Travel		ASEO/ISIO CECOM, Fort Monmouth, NJ	728	200		235		0	0	0	0	0
w . Overhead		ASEO/ISIO CECOM, Fort Monmouth, NJ	664	419		400		0	0	0	0	0
x . SBIR/STTR		Funds reprogrammed for SBIR/STTR programs	0	197		0		0	0	0	0	0
Subtotal:			21584	8334		8451		0		0	0	0

Remarks: The Joint Venture Office at TRADOC sent a one-time, additional $3.5M under Line D589 to support the Joint Contingency Force Army Warfighter Experiment (JCF AWE) to be exercised Sep 00.

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
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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
Subtotal:			0	0		0		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:			21584	8334		8451		0		0	0	0

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604805A - Command, Control and Communications Sys Eng Dev**	**591**

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
591	WPN SYS TECH ARCH (WSTA)	2340	2433	2406	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: Weapons System Technical Architecture: The Joint Technical Architecture-Army (JTA-A) provides the "building code" foundation for designing, building, fielding, and supporting interoperable systems in an expedient and cost-effective manner. The Weapons System Technical Architecture (WSTA) identifies new and emerging standards for integration of new technologies into existing Army Weapon Systems in support of Army digitization efforts. WSTA will define weapon system domain exceptions and extensions to the JTA and JTA-Army. It will promote an open systems approach in Army weapon systems. It will work to expand the Defense Information Infrastructure Common Operation Environment concept to properly accommodate Army weapon systems. This program supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

FY 2000 Accomplishments

•	64	Developed, updated and maintained Army Weapon System Common Operating Environment (COE) Application Programming Interfaces (API) for Battlefield Digitization Software
•	254	Developed and maintained Weapon System Human Computer Interface style guide and Joint Technical Architecture-Army/Joint Technical Architecture (JTA-A and JTA) Appendix F
•	1071	Developed and maintained weapon software Application Programming Interfaces and developed conformance tests
•	85	Supported the development of the WSTAWG COE
•	85	Developed interoperability threads for the Weapon Systems Subdomain
•	290	Integrated COE software into Army Weapon Systems
•	136	Developed COE prototype; supported Joint Real Time Defense Information Infrastructure COE
•	35	Developed First Digitized Division Interoperability Threads
•	90	Interoperability testing between weapon systems and Army Battle Command Systems
•	230	Engineering and Program Development
Total	2340	

FY 2001 Planned Program

•	350	Update the WSTAWG Framework Version 4.0, develop reference architecture, and perform cost analyses.
•	538	Mature the Mapping API and OE API.
•	284	Develop & mature interoperability threads; certify threads interoperable threads
•	310	Develop Security Architecture and continue to work with National Security Agency on security certification of an Real Time Operating System.
•	528	Develop the Weapon COE Prototype and software components.
•	351	Engineering and Program Development
•	72	Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Program
Total	2433	

FY 2002 Planned Program

•	249	Update the WSTA Framework to Version 5.0
•	110	Develop and test OE Version 3.0 and WSMS 2.5
•	435	Develop and certify interoperability threads for Army Certification Events: Second Digitized Division and First Digitized Corps
•	475	Test and certify a WSTA security architecture
•	500	Field Weapon COE in two weapon subdomains; establish COE as an AMC system
•	262	Maintain and update the JTA-A and JTA
•	375	Engineering and Program Development
Total	2406	

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

C. Acquisition Strategy: The efforts funded in this project are non-system specific, interoperability experimentation, evaluation and certification across multiple systems. The contractual efforts/services are obtained from existing competitive Omnibus support services contracts.

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Develop/refine reference Architecture for Weapons mapping software	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Conduct interoperability demonstration	2-3Q	2-3Q		0	0	0	0	0
Complete Version 3.0 OE	4Q			0	0	0	0	0
Update WSTAWG Framework Version 4.0		1-4Q		0	0	0	0	0
Develop Weapon Common Operating Environment Prototype		2-4Q		0	0	0	0	0
Insert/update new computer science technology advances into weapon system software		3-4Q	1Q	0	0	0	0	0
Institutionalize processes for life cycle software maintenance				0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
591

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 . USAISSC	MIPR	Fort Belvoir, VA	64	0		0		0	0	0	0	0
b . TACOM-ARDEC	MIPR	Picatinny Arsenal, NJ	254	355		250		0	0	0	0	0
c . TACOM	MIPR	Warren, MI	1071	1083		1099		0	0	0	0	0
d . GSA	MIPR	Huntsville, AL	550	632		670		0	0	0	0	0
e . Nichols Research Corporation	Contract	Huntsville, AL	171	0		0		0	0	0	0	0
Subtotal:			2110	2070		2019		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
Subtotal:			0	0		0		0		0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
591

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
a . AMCOM In-house		Redstone Arsenal, AL	230	368		375		0	0	0	0	Continue
Subtotal:			230	368		375		0		0	0	Continue
Project Total Cost:			2340	2438		2394		0		0	0	Continue

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604805A - Command, Control and Communications Sys Eng Dev**	**615**

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
615	JTRS-GROUND DOMAIN INTEGRATION	5836	28281	104034	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: Project D615 supports the Joint Tactical Radio System (JTRS)-RDTE effort. FY01-07 funding supports aggressive development of the JTRS program. The development strategy includes a JPO JTRS Step 2C initiative of 220 ruggedized prototypes/40 Engineering Development Models (EDMs). A follow-on JTRS Step 2C Vehicular hardware acquisition for approximately 400 additional prototypes in the FY02-03 timeframe is required for continued experimentation in the Corps. A Cluster 1 development of approximately 150 ground/150 airborne EDMs will be initiated in FY02, and a Low Rate Initial Production (LRIP) in the FY05 timeframe. The JTRS-Army RDTE program will enable the Army to acquire and field a family of affordable, scaleable, high capacity, interoperable radio sets based on a common JTRS Software Communications Architecture (SCA). The JTRS is a key enabler of the Army Transformation and will provide critical communications capabilities across the spectrum of operations in a Joint environment. This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

FY 2000 Accomplishments

- 683 NTDRS Management Services (NTDRS Program Management Office Support)
- 66 NTDRS Test and Evaluation (Completion of NTDRS Electronic Proving Ground Testing)
- 4563 NTDRS Product Development (Completion of NTDRS Engineering Development deployment to FDD, and Brigade Combat Team Support)
- 387 NTDRS Support Costs (Systems Engineering and Integration Support)
- 137 Product Development (ABCS System Engineering and Integration Efforts)

Total 5836

FY 2001 Planned Program

- 7005 NTDRS Product Development (NTDRS Completion of development, and upgrade of approximately 40 engineering development models, and technical support)
- 587 NTDRS Customer Test EPG
- 6671 JTRS Product Development (JTRS Step 2C Hardware Development/Software/Waveform Development)
- 2173 JTRS Product Development (JTRS Step 2C Ancilliary Equipment and Logistics and Engineering Services)
- 534 JTRS Product Development (Antenna and Cosite Studies)
- 1092 Product Development (ABCS System Engineering and Integration Efforts)
- 3679 Test and Evaluation (JTRS Step 2C EPG Testing/Validation/Modelling and Simulation)
- 1735 JTRS Support Costs (JTRS Engineering and Technical Support)
- 2972 JTRS Management Services (JTRS Program Management Office Support)
- 1000 JTRS Management Services (JTRS Milestone/Source Selection Activities)
- 833 Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) Program

Total 28281

FY 2002 Planned Program

- 467 JTRS Product Development (JTRS Step 2C Contract Hardware Development)
- 422 JTRS Product Development (JTRS Step 2C Ancilliary Equipment)
- 1842 JTRS Product Development (JTRS Step 2C Logistics and Engineering Services)
- 72735 JTRS Product Development (JTRS Cluster 1 Vehicular and Airborne Hardware Design and Development of Prototypes)
- 17545 JTRS Product Development (JTRS Additional Step 2C Acquisition)
- 1101 JTRS Test and Evaluation (JTRS - Step 2C EPG Test/Customer JTRS Test and Evaluation)
- 1854 JTRS Support Costs (Systems Engineering and Integration, Technical Support)
- 4546 JTRS Management Services (JTRS Program Management Office Support)
- 1732 NTDRS Support Costs (NTDRS Testbed and Technical Support)

FY 2002 Planned Program (Continued)

- 1790 JTRS Product Development (JTRS Additional Step 2C Ancilliaries Log & Eng Support)

Total 104034

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
OPA, Army, ADDS, BU1400/EPLRS*	53016	80810	46332	0	0	0	0	0	0	0
OPA, Army, ADDS, BU1400/JTRS*	0	0	0	0	0	0	0	0	0	0
RDTE, JTRS, 0604280A/D162	35537	61648	80449	0	0	0	0	0	0	0
RDTE, JTRS, 0603713A/D370 - Army Data Distribution System	3724	17	0	0	0	0	0	0	0	0

Note: *The BU1400 BLIN is established to procure EPLRS through FY04, which meets the current APO. This same BLIN will be the core procurement funding line for JTRS, as "productionized" systems become available. Transition to JTRS procurement may occur sooner than FY 05; if segments of the JTRS evolve earlier (FY03-FY04). RDTE 0603713A/D370 FY2000/2001 funding of $10K and $17K supports NTDRS efforts and D370 funding FY99 and prior supports NTDRS only. FY2000 D370 funding of $3714K supports JTRS efforts.

C. Acquisition Strategy: Near Term Digital Radio System(NTDRS): The NTDRS program maximizes the use of Non-Developmental Item (NDI) and Commercial Off-the-Shelf (COTS) hardware and software. An RDTE contract was awarded competitively in January 1996. In FY2000, the NTDRS participated in various test exercises such as the FBCB2 EPG Field Test, FDTE/Customer Test, the Joint Contingency Force (JCF), and NTC Rotation 00-10 exercises to provide the Army's Tactical Internet TOC-TOC data communications. Planned distribution of the NTDRS into the FDD for continued experimentation purposes is scheduled for 2Q FY 2001. In FY01 and out NTDRS will be providing the TOC to TOC function in the first and second Brigade Combat Teams, FBCB2 exercises, and future NTC rotations, until JTRS Step 2C radios replace existing NTDRS radios.

Joint Tactical Radio System (JTRS): In FY2001, project D615 will support JTRS Army hardware developments and NTDR activities. The JTRS will support an evolutionary acquisition strategy. The JTRS Joint Program Office (JPO) is responsible for common core activities including developing, maintaining, and evolving the JTRS open standards architecture, providing re-coded versions of legacy waveforms to operate on JTRS architecture compliant hardware, and providing a certifying infrastructure for hardware/software compliance. Following the architecture's validation and a market survey of industry's capabilities, a Defense Acquisition Executive program review was held in 1QFY01. Following that review, the Services, which retained acquisition and weapon system integration responsibility, will begin acquiring scaleable JTRS systems commensurate with Service migration plans. In FY02 to FY03 timeframe, the Army will acquire approximately 400 additional Step 2C JTRS radios to experimentation in the III Corps and 3rd ACR and

for training base and float needs. These radios will be used to validate wideband networking requirements in the Corps.The Army's plan is to award a contract for additional form, fit and function identical Step 2C radios to validate these requirements and provide for possible replacement of NTDR assets. In FY02, the Cluster 1 development will be initiated to develop multi-channel ground and airborne configurations. The FY03-07 budget supports operational testing of the Step 2C radios, DT/OT testing for Cluster 1 and IOT&E testing for the LRIP radios. Future JTRS Army efforts will also focus on handheld and dismounted configurations.

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
NTDRS CTSF ABCS Software Updates	1-4Q	1-4Q	1-4Q	0	0	0	0	0
NTDRS Participation FBCB2 Field Test II/FDTE/Customer Test	2Q			0	0	0	0	0
NTDR JCF AWE Participation		1Q		0	0	0	0	0
NTDRS EPG NTDRS Field Test III		1-2Q		0	0	0	0	0
NTDRS Deployment to Brigade Combat Team 1		2Q		0	0	0	0	0
NTDRS Deployment to Brigade Combat Team 2			1Q	0	0	0	0	0
NTDRS Participation NTC/01-06/02-05/02-08	4Q	2-3Q	2-3Q	0	0	0	0	0
NTDRS Support Division Combat Exercise (DCX 1 and 2)		2-3Q		0	0	0	0	0
NTDRS Participation FBCB2 Field Test III & Limited User Test 3		1-2Q		0	0	0	0	0
NTDRS Participation FBCB2 Limited User Test IV		4Q	1Q	0	0	0	0	0
NTDRS Complete NTDRS FDD Deployment		2Q		0	0	0	0	0
NTDRS Participation in FBCB2 IOT&E			1Q	0	0	0	0	0
JTRS-Army Architecture Provided by JTRS-JPO - 2.0 SCA Architecture		1Q		0	0	0	0	0
JTRS-JPO DAE Review - OCT		1Q		0	0	0	0	0
JTRS-Army Step 2C Award*	3Q			0	0	0	0	0
JTRS-Army Milestone B			1Q	0	0	0	0	0
JTRS-Army Cluster 1 Ground & Airborne EMD Award			2Q	0	0	0	0	0
JTRS-Army Step 2C EPG Testing/Validation			3Q	0	0	0	0	0
JTRS-Army Step 2C EPG Operational Assessment			2Q	0	0	0	0	0
JTRS-Prototypes Contract Award Additional Step 2C Qty			3Q	0	0	0	0	0
JTRS-Army Additional Step 2CPrototypes EPG Operational Assessement Ramp-up and Conduct of Test				0	0	0	0	0

D. Schedule Profile (continued)	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
JTRS-Army Cluster 1 LRIP Option Award				0	0	0	0	0
JTRS-Army Cluster 1 Ground & Airborne DT/OT				0	0	0	0	0
JTRS-Army Cluster 1 Ground & Airborne Ramp-up & Conduct IOT&E				0	0	0	0	0
JTRS-Army Handheld and Dismountable Milestone B				0	0	0	0	0
JTRS-Army Handheld and Dismountable Engineering & Manufacturing Development Initiation				0	0	0	0	0
JTRS-Army Handheld and Dismountable EPG Testing				0	0	0	0	0
JTRS-Army Handheld and Dismountable Milestone C				0	0	0	0	0
JTRS-Army Handheld and Dismountable LRIP Award				0	0	0	0	0
JTRS-Army Handheld and Dismountable IOT&E				0	0	0	0	0
JTRS-Army Handheld and Dismountable Full Rate Production Award				0	0	0	0	0

* Funded under PE 0603713A Project D370 and PEO in FY00

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
615

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 . NTDRS CPIF/T&M Efforts*	C/T&M/CPIF	ITT, Fort. Wayne, IN	3463	7005	2-4Q	0		0	0	0	0	0
b . Brigade Combat Team Support	T&M	ITT, Fort Wayne, IN	1100	0		0		0	0	0	0	0
c . NTDRS Ancilliary Equip (Network Management Terminal Upgrade)	MIPR	PM, CHS, Fort Monmouth, NJ	28	0		0		0	0	0	0	0
d . JTRS Army Step 2C Hardware Development and Cost of Prototypes	C/OTA	BAE Systems, Wayne, NJ	0	1071	1Q	467	1Q	0	0	0	0	0
e . JTRS Army Step 2C Software/Waveform Development	C/OTA	BAE Systems, Wayne, NJ	0	5600	4Q	0		0	0	0	0	0
f . JTRS Step 2C Anc Equip/Log & Engrg	C/OTA/T&M	BAE Systems, Wayne, NJ	0	1740	2-4Q	2264	1Q	0	0	0	0	0
g . JTRS Cluster 1 Hardware Vehicular and Airborne	TBD	TBD	0	0		72735	1-2Q	0	0	0	0	0
h . ABCS System Engineering and Integration Efforts	TBD	TBD	137	1092	2-3Q	0		0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
615

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
i . JTRS Development - Additional Step 2C	TBD	TBD	0	0		17545	3Q	0	0	0	0	0
j . NMT Step 2C	FFP	PM, CHS, Fort Monmouth, NJ	0	433	2Q	772	2Q	0	0	0	0	0
k . SBIR/STTR Reprogramming			0	833	1Q	0		0	0	0	0	0
l . JTRS Development-Antenna & Cosite Studies	TBD	TBD	0	534	4Q	0		0	0	0	0	0
m . JTRS Development-Additional Step2C Acq-Log & Engrg Devel	TBD	TBD	0	0		1018	1-3Q	0	0	0	0	0
Subtotal:			4728	18308		94801		0		0	0	0

Remarks: *NTDRS efforts prior to FY 2000 were charged against 0603713A, D370

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
615

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 . NTDRS Test Support-RDEC	MIPR	RDEC, Fort Monmouth, NJ	143	0		0		0	0	0	0	0
b . NTDRS Training Support-EPS	PWD	EPS, Fayetteville, NC	61	0		0		0	0	0	0	0
c . NTDRS Technical Support-Mykotronx	PWD	Mykotronx, Torrance, CA	15	0		0		0	0	0	0	0
d . NTDRS Technical Support-C3I Systems	PWD	C3I Systems, Tinton Falls, NJ	168	0		0		0	0	0	0	0
e . NTDRS NTDRS Logistics & Technical Support	PWD	ITT, Fort Wayne, IN	0	0		1732	1-2Q	0	0	0	0	0
f . JTRS Technical Support	MIPR	RDEC, Fort Monmouth, NJ	0	839	2Q	990	1Q	0	0	0	0	0
g . JTRS Test Support	PWD	SEMCOR/TITAN Co., Mclean, VA	0	99	3Q	101	1Q	0	0	0	0	0
h . JTRS System Engineering	PWD	C3I Systems, Tinton Falls, NJ	0	103	2Q	174	1Q	0	0	0	0	0
i . JTRS Technical Support	MIPR	Miscellaneous	0	694	1-3Q	589	1-2Q	0	0	0	0	0
Subtotal:			387	1735		3586		0		0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
615

Remarks: *NTDRS - prior to FY 2000 were charged against 0603713A, D370

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
a . NTDRS Field Testing	MIPR	EPG, Fort Huachuca, AZ	66	587	2Q	0		0	0	0	0	0
b . JTRS Step 2C EPG Qual Testing/Customer Testing	MIPR	EPG, Fort Huachuca, AZ	0	2270	2-3Q	0		0	0	0	0	0
c . JTRS EPG Testbed and Test Planning	MIPR	EPG, Fort Huachuca, AZ	0	1084	1Q	1101	1Q	0	0	0	0	0
d . JTRS Additional Step 2C Prototype EPG Operational Assessment Rampup and Test Conduct	MIPR	EPG, Fort Huachuca, AZ	0	0		0		0	0	0	0	0
e . JTRS Modelling & Simulation	MIPR	TBD	0	325	4Q	0		0	0	0	0	0
Subtotal:			66	4266		1101		0		0	0	0

Remarks: *NTDRS - prior to FY 2000 were charged against 0603713A, D370

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
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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
a . NTDRS Program Support*	MIPR	Fort Monmouth, NJ	655	0		0		0	0	0	0	0
b . JTRS Business/Engineering Management	MIPR	Various	0	1104	1-4Q	966	1-2Q	0	0	0	0	0
c . Tactical Radio Comm Sys Project Management Office Support	MIPR	Various	0	1342	1-3Q	2766	1-3Q	0	0	0	0	0
d . JTRS Travel/Training	MIPR	Various	0	186	1-4Q	286	1-4Q	0	0	0	0	0
e . JTRS MITRE Support	PWD	MITRE Corp., Mclean, VA	0	232	2Q	419	1Q	0	0	0	0	0
f . JTRS Acquisition Support	PWD	Sytex, Doylestown, PA	0	108	1Q	109	1Q	0	0	0	0	0
g . JTRS Milestone Prep & Source Selection Activitites	Misc	Various	0	1000	4Q	0		0	0	0	0	0
Subtotal:			655	3972		4546		0		0	0	0

Remarks: *NTDRS - prior to FY 2000 were charged against 0603713A, D370

Project Total Cost:			5836	28281		104034		0		0	0	0

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

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - ENG MANUFACTURING DEV	**0604805A - Command, Control and Communications Sys Eng Dev**	**629**

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
629	TACTICAL COMMUNICATIONS SYSTEM - ENGINEERING DEVEL	1788	14196	1841	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification: The Protocol Investigation for Next Generation (PING) program's focus is on the evaluation of emerging communication protocols such as Internet Protocol version 6 in a controlled lab/testing environment for future Army networks, Objective Force and beyond the First Digitized Division (FDD). This program will determine the benefits of Army co-existence/migration from Internet Protocol version 4 (IPv4) to IPv6 and analyze the consequences of limited IPv4 addresses and the need for interoperability with future systems. This approach also provides a method to address and discover interoperability issues early in the development cycle. By providing continuous feedback to the Army System Engineering Office (ASEO), it is anticipated that technologies can be selected for future versions of the Joint Technical Architecture - Army (JTA-A) faster and with more confidence. Execution of this mission is a critical step in the evolution and maturation of communications networks beyond FDD, while at the same time enhancing the Army's tactical communications and demonstrating interoperability within the Army and Joint Community. Applied Communications and Information Networking (ACIN)evaluates high impact emerging commercial communications and networking technologies for use in military systems, architectures and impacts upon Network Centric Warfare. Emphasis is on evaluating and leveraging wireless and information or assurance technologies via demonstrations or integration into military systems and end to end solutions through comercialization.Output from this task will directly feed future versions of the JTA-A and the Weapons System Technical Architecture Working Group (WSTAWG). Note this program was previously funded under PE/Project 0603805A/D246. This program supports the Legacy to Objective transition path of the Transformation Campaign Plan.

FY 2000 Accomplishments

- 1688 - Evaluated emerging new protocols/technologies (i.e., IPV6, reliable multicast, etc.) to enhance the Army's tactical communications. Provided recommendations to the Army System Engineering Office (ASEO) for incorporation into the JTA-A and Weapons System Technical Architecture working group.
  - Proposed and formed new WSTAWG Communications IPT under the WSTAWG for development of communications interoperability analysis.
- 100 - Evaluated emerging standards for interfaces with different echelons and platforms related to Airborne networking/communications technologies.

Total 1788

FY 2001 Planned Program

•	1632	- Evaluate interoperability and evaluate advanced technologies (i.e., reliable multicast, Internet Protocol version 6 (IPv6), mobile technolgies, quality of service (QoS), Voice over IP (VOIP), secure protocols, etc) for the Army tactical communications. Provide recommendations/assessments to the Army System Engineering Office (ASEO) for incorporation into the JTA-A and Weapons System Technical Architecture working group. Participate in the Space and Naval Warfare (SPAWAR) ACTD. - Evaluate weapons system communications issues under the Weapons System Technical Architectue Working Group (WSTAWG) communications Integrated Process Team (IPT) and analyze and recommend communications network interoperability roadmap. - Participate in SPAWARS led ACTD on IPv6. Perform interoperability and Joint experiments.
•	100	- Evaluate architectural capabilities, feasibility, interoperability transmission capabilites of emergin protocols for higher data rate communications on an airborne platform. Provide recommendations to ASEO forinclusion into the JTA-A.
•	12069	- Investigate, identify and adapt emerging commercial wireless technologies that can be rapidly integrated into the DoD communications architecture. - Adapt network access security technolgies and security architectures, based on existing commercial implementations of biometrics coupled with user profiles, to provide users with secure and immediate access to required services and information. - Establish a set of courses and seminars to educate DoD personnel in emerging innovative DoD-driven applications of information technology that can realize the vision of network centric warfare. - Investigate the feasibility of using FCC adopted Advanced Television Systems Committee (ATSC) commercial broadcast technologies (Digital TV and Orthogonal Frequency Multiplexing (OFDM)) to provide mobile military users with greatly improved high data rate wireless communications. - Analyze and adapt emerging methods, concepts and standards for ensuring that prioritized quality of service can be maintained in battlefield networks that are subjected to physical and cyber attacks.
•	395	- Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) Program
Total	14196	

FY 2002 Planned Program

•	1841	- Upgrade the advanced and distributed IPv6/IPv4 laboratory/testbed environment with latest versions of IPv4 services employed in the current digitized force, latest releases of IPv6, and latest data collection equipment. - Analyze Army digitized forces systems being fielded as part of the First Digitized Division (FDD), review the lessons learned from the Joint Contingency Force (JCF) Advanced Warfighting Experiment (AWE) and next generation systems being developed as part of the Future Combat System (FCS) to identify islands of IPv6/IPv4 co-existence that will exist due to organizational structure or limitations on communications systems. - Conduct laboratory experiments that demonstrate and characterize IPv6 protocols for: Addressing and the effect on mobility-both micro-mobility and network mobility; Routing and effects on bandwidth usage, Static addressing versus auto-configuration; Interoperability of IPv6 and IPv4, d) IPv6 QoS performance in a tactical environment; and IPSec mechanisms and implementations - Present to ASEO, WSTAWG Communications Integrated Process Team (IPT and commercial forums the findings from the analysis and laboratory evaluations to facilitate modifications to the IPv6 protocol suite during development - Participate in the CINC 21 Next Generation Information Operations Advanced Concept Technology Development (ACTD) to compare/evaluate the IPv6 security capabilities of IPv6 network with that of the USPACOM IPv4 network. Conduct experiments for the ACTD security analysis comparison report.

Total 1841

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

C. Acquisition Strategy: The objectives of this program are to: 1.) utilize a unique analysis/laboratory capability to evaluate emerging communications/networking technologies in a realistic tactical environment with focus on the Army Enterprise Architecture technical architecture (TA) 2.) make technical recommendations to ASEO in support of the JTA-A and WSTAWG 3.) help mitigate the risk normally associated with fielding new protocols and help to insure that interoperable and seamless bandwidth-on-demand communications is provided.

D. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
System Integration	4Q	3Q	3Q	0	0	0	0	0
Address Architecture Issues	2-4Q	2-4Q	2-4Q	0	0	0	0	0
Laboratory Testing	1-4Q	1-4Q	1-4Q	0	0	0	0	0
Systems Integration (Airborne Communications)	4Q	2-4Q		0	0	0	0	0
Video Demonstration	4Q	4Q		0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
629

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 . Systems Engineering		CECOM RDEC, Fort Monmouth, NJ	1112	1823		1141		0	0	0	0	0
b . Contract Services			0	0		0		0	0	0	0	0
c . 1)	Rqmts	MITRE	406	410		410		0	0	0	0	0
d . 2)	C-T&M PSLA	SRI, Eatontown, NJ	270	280		290		0	0	0	0	0
e . ACIN		Drexel Univ, Philadelphia, Pa	0	11288	2Q	0		0	0	0	0	0
f . SBIR/STTR			0	395		0		0	0	0	0	0
Subtotal:			1788	14196		1841		0		0	0	0

Remarks: In FY01 Congressional plus-up for Applied Communications and Information Networking (ACIN) Project with $12.5M to empower the government user to effectively and efficiently capitalize on technology emerging from the commercial and consumer communications and networking industries by leveraging advances, influencing development efforts, implementing standards and delivering operational solutions.

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
5 - ENG MANUFACTURING DEV

PE NUMBER AND TITLE
0604805A - Command, Control and Communications Sys Eng Dev

PROJECT
629

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
Subtotal:			0	0		0		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

Remarks: Not Applicable

Project Total Cost:			1788	14196		1841		0		0	0	0