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DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

INFORMATION TECHNOLOGY EXHIBIT



FISCAL YEAR (FY) 2001 BUDGET ESTIMATES

FEBRUARY 2000

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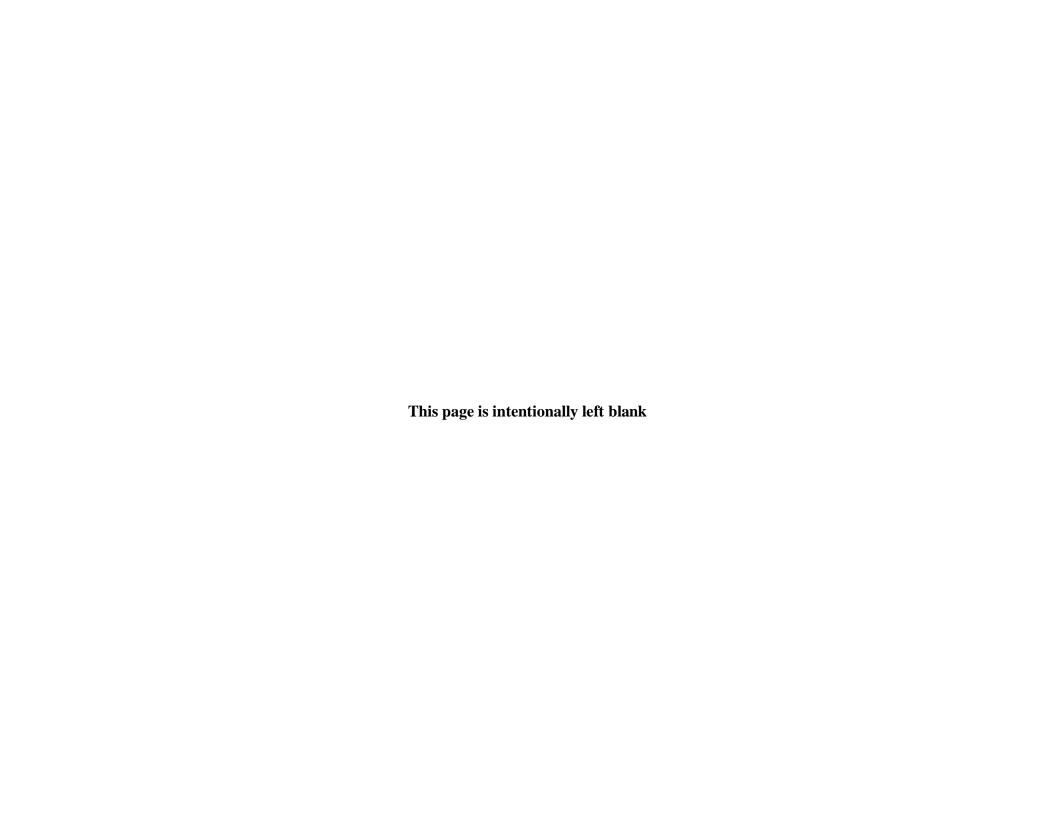
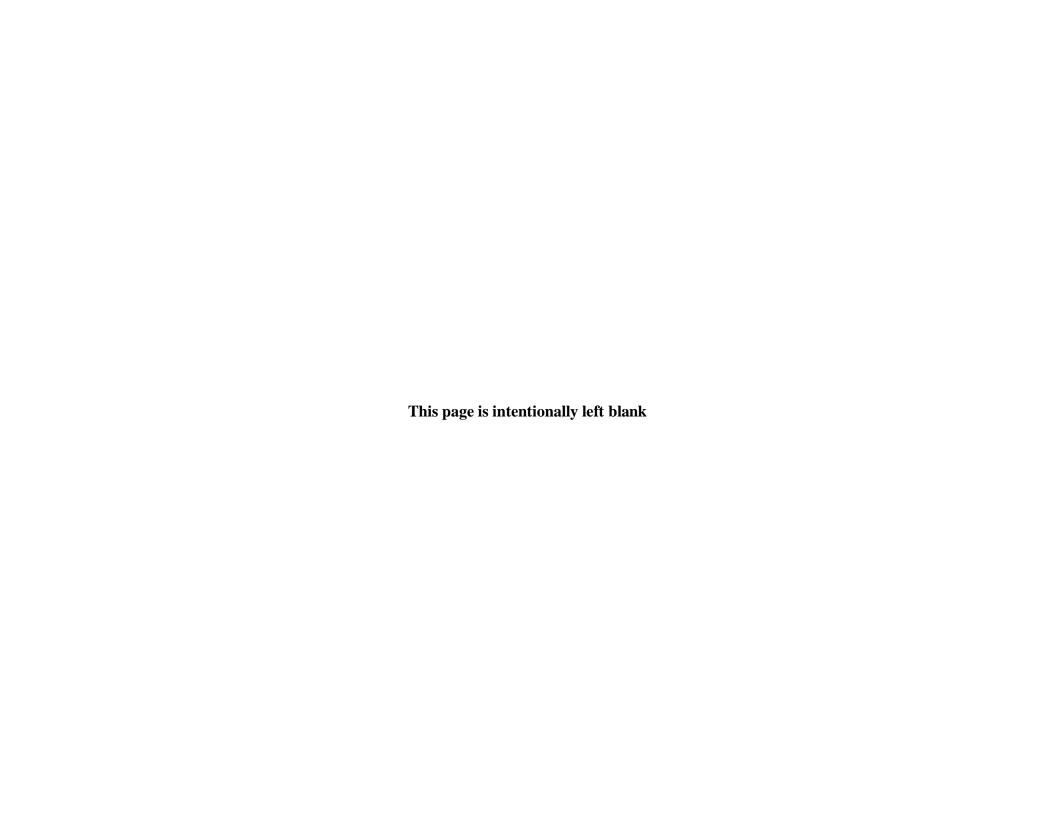


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Introduction

The Army's vision for information technology is to support and enable the United States Army as the preeminent land power in the world. The command, control, communications, computers and intelligence/information technology (C4I/IT) investment strategy stems from this vision as it embodies the basic tenents of "Joint Vision 2010" and "Army Vision 2010." The vision serves as a vector for the Army's C4I/IT investment strategy for the future. Information superiority is the key to successful operations on the 21st Century battlefield. Information superiority is the organizing principle for "Joint Vision 2010" and "Army Vision 2010," with information technology as the critical enabler to achieve new operational concepts of Dominant Maneuver, Precision Engagement, Focused Logistics, and Full Dimensional Protection.

The investment strategy provides a focused approach and enables the Army to evolve from today's platform-centric force (Army of Excellence) into a network-centric force in 2010 (Army XXI) and, finally, into the knowledge-centric force of 2025 (Army After Next). This evolution will provide soldiers with the ability to capitalize on knowledge obtained from unlimited access to a global, seamless, secure enterprise network to achieve information superiority. Central to these concepts is the creation of a global secure network for our world class soldiers. This network will allow soldiers to access the knowledge capital offered by the network, thus enabling the realization of a knowledge-centric force.

As the Army fulfills it non-negotiable contract with the American people – to be a warfighting Army, persuasive in peace while invincible in war, the Chief Information Officer (CIO) has identified investment priorities that support the Army's commitment to the nation. The CIO priorities are:

- 1) Digitize the Battlefield,
- 2) Digitize the Installation,
- 3) Leverage the intellectual capital of our soldiers using knowledge management principles,
- 4) Secure and assure our information, and
- 5) Exploit Architecture.

The remainder of the overview will provide a holistic perspective of the Army's investment technology(IT) management with a primary focus on:

- 1) Major challenges facing the Army
- 2) Army Chief Information Officer strategy and implementation
- 3) IT investment and selection process
- 4) Major initiatives supported in the Budget Estimate Submission (BES)

Digitizing the Battlefield discussion

Digitizing the Installation discussion

Knowledge Management discussion

Information Assurance discussion

Army Enterprise Architecture discussion

- 5) Accomplishments and ongoing program initiatives
- 6) IT funding changes to the prior baseline
- 7) Y2K supplemental information

Major Challenges Facing the Army

The Army's core competency remains fighting and winning our Nation's wars. To maintain and achieve success, the forces must be able to operate through a broad spectrum of conflict, spanning from low intensity operations to countering asymmetrical threats. Army Strategic Planning identifies seven mission areas that are designed to provide a means to address all potential conflict and threats. The seven areas are Promote Regional Stability, Reduce Potential Conflict and Threats, Deter Aggression and Coercion, Conduct Small Scale Contingency Operations, Fight and Win Major Theater Wars, Secure the Homeland and Provide Domestic Support. Information technology support is embodied in all seven mission areas and is resourced within the investment strategy.

Army Chief Information Officer strategy and implementation

The Army CIO's Investment Strategy is based upon the Army's strategic objectives and provides the framework for sound programming decisions. It includes Army strategic direction, required operational capabilities, and programmatic guidance for the Joint Chiefs of Staff (JCS) and the Office of the Secretary of Defense (OSD).

The Army CIO continues to implement the Clinger-Cohen Act (CCA) requirements and apply sound business practices to all C4I/IT management programs. The Army's capstone C4I/IT policy document, Army Information Management, has been updated for the 21st Century. This regulation institutionalizes the provisions of the Clinger-Cohen Act and formally establishes the Director of Information Systems for Command, Control, Communication, and Computers (DISC4) as the Army's Chief Information Officer (CIO). The full scope of CIO responsibilities and management processes is delineated throughout this regulation. These management processes involve strategic planning, business process analysis and improvement, assessment of proposed systems, resource management (to include investment strategy), performance measurements, acquisition, architectures, and training. CIO management focuses on those policies, processes, and organizational responsibilities necessary to accomplish the mission defined primarily in governing legislation and other guidance.

The Army CIO participates in and influences resource management processes at all levels. The CIO integrated its C4I/IT investment strategy process into the PPBES process in FY00. CIO representation is present at all levels in PPBES decision-making. IT investment strategy, technical implications, architectural compliance requirements, and other factors are used in this process. CIO representatives are involved in matters dealing with C4I/IT programs such as funding issues (bills, billpayers, and movement of dollars) and affected program changes.

A management process has been instituted to ensure that all Army organizations at the installation level and above analyze their missions and revise their mission-related and administrative work processes, as appropriate, before making significant IT investments in support of those processes. Process analysis and appropriate revision will be periodically performed for mission and performance effectiveness. For mission-related and administrative work processes, the process associated with the mission need will

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be evaluated to determine whether it can be outsourced. Process analyses, improvements, and reengineering of mission-related and administrative work processes will be documented in a CIO database to facilitate process improvement initiatives.

In the acquisition area, the Army is now automating the CIO assessment process as part of the Acquisition Information Management System (AIMS). The Army CIO assesses all Army programs at each major acquisition milestone. The CIO continues to evaluate the program and provides recommendations to continue, modify, or terminate the program.

The Information Technology Management (ITM) Program Office, serving 11,000 Army ITM civilians, is working with DoD, Federal CIO Council, and OPM to modernize the ITM competencies to form broad-based skill sets that reflect the flexibility and innovation needed in today's ITM practice. The emergence of the Information Assurance (IA) field has led to establishing guidelines for training, certification, career designation, and recruiting for military and civilians performing critical IA functions.

How IT Investments Support Mission and Link to Strategic/Business Plans

The Army CIO C4I/IT investment process helps ensure that Army investments concerning C4I/IT issues are based on the capabilities required for successful mission area performance. Assessing C4I/IT investments across the seven mission areas leads to a balanced capability-based C4I/IT investment portfolio. Army strategic planning provides the framework for sound IT programming decisions. The plan is constructed in three complementary sections, beginning with the national, Department of Defense and Army-derived vision provided in Section I, the Army Strategic Planning Guidance (ASPG). The ASPG is followed by the Army Planning Guidance in Section II that identifies the seven mission areas (MAs) that together provide operational, capability-based planning guidance for development of Section III, the Army Program Guidance Memorandum (APGM). The APGM provides direction for building or sustaining specific Army programs. The Army uses six Program Evaluation Groups (PEGS) to support planning, programming and budgeting. The six functional groupings are Manning, Training, Equipping, Organizing, Sustaining, and Installations. Each PEG sets the scope, quantity, priority, and qualitative nature of resource requirements that define its program. A mapping of the seven Mission Areas against the six Program Evaluation Groups is shown below (Figure 1).

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The CIO Investment Strategy framework and methodology seek to add value to Army C4I/IT investments in two respects:

- Planners and programmers work collaboratively to determine optimal, affordable C4I/IT investments that will deliver a capabilities-based return on investment in support of the Army's strategic plan.
- The investment strategy is based-upon a crosscutting analysis of the value that C4I/IT investments can leverage, or balance, *across* the seven mission areas.

The CIO investment strategy has become more refined and institutionalized during this budget cycle. The next iteration will fortify IT investment solution valuations with performance measures/indicators for assessment. The CIO investment strategy will help ensure that the Army's C4I/IT systems are strategically aligned with enterprise-wide mission needs in order to achieve both dominant war fighting capabilities and world class business process success.

Army Strategic Planning Overview

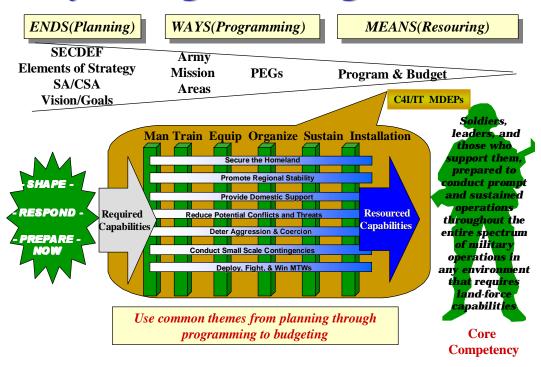


Figure 1. Mapping of Mission Areas to Program Evaluation Groups

IT Investment selection process

The Army's C4I/IT investment capital planning process is an integrated approach to managing IT investments that provides for continuous identification, selection, control, life-cycle management, and evaluation of investments at all levels of the Army (Figure 2). This structured process provides a systematic method to minimize risks while maximizing the return of C4I/IT investment resource.

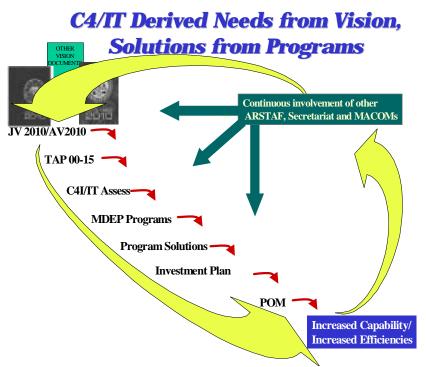


Figure 2. Life Cycle for C4I/IT Capabilities

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Prudent investment in C4I/IT assets is an essential part of the vision for achieving information dominance. Carefully selected and well managed C4I/IT investments will ensure the Army is modernizing to meet challenges associated with changes to both operational doctrine and projected threats. A capable selection process further enables the Army to capitalize on current and emerging technologies that directly contribute to mission achievements.

Essential to the process is the involvement of Army C4I/IT stakeholders. The stakeholders represent Headquarters Department of the Army, MACOMs and the Joint Staff. Stakeholders help define a horizontally integrated framework of *interdependent* investment areas that encompass the funded programs supporting the seven mission areas. The concept of interdependency is of paramount concern when considering C4I/IT investments. The recognition of process and function interdependency begins as process proponents first consider better (i.e. more efficient, more effective) ways of doing business. After careful consideration of potential business improvements, proponents then acquire the IT to achieve those better business practices. There is also an inherent and discrete interdependency among the IT investments which together comprise a common, networked operating environment. C4I/IT stakeholders must remain aware and vigilant of the interdependency of selected IT investments that collectively migrate the Army information architecture into a common, interoperable information infrastructure.

IT Performance Measurement

Army policy requires performance measurements be included in all operational requirements documents (ORDs). The Army CIO continues to work performance measurement issues with OSD. Concurrently, the Army's IT Investment review focuses on a variety of performance measures: Contribution to Army Mission Impacts ("so what?") – reachback, readiness, visibility, jointness; Contribution to Mission Capability ("what?") – accuracy, speed, information capacity, effectiveness, throughput; Contribution to system efficiency – state-of-the-art; systems of systems efficiencies; and contribution to cost savings/cost containment -- Return on Investment, cost-benefit ratio. The CIO uses these criteria to assist in the evaluation/selection of claimants for allocation of scarce Army resources.

Major initiatives supported in the BES

Army Transformation Strategy

C4/IT programs are key to the core of the Army Vision and the Army Transformation Strategy. The Vision and Transformation Strategy stresses the importance of information technology for both achieving a decisive edge in operational warfighting capabilities, as well as the means to support those capabilities through the concomitant business economies and efficiencies that these technologies provide. The Army's Transformation Vision strongly relies upon the internetted C4ISR capabilities for joint situational awareness and the global velocity and agility of the projected force required by 21st century warfighting doctrine. Power projection and reach-back connectivity for split-base operations and support requires a secure, robust information infrastructure. This infrastructure is the central platform for the strategic communications also required by ready and rapidly deployable Army AC/RC forces in accordance with the operational concepts of Army Vision 2010 and Joint Vision 2010.

Digitizing the Battlefield

The Army of the next century will be required to operate across a broad operation spectrum including space, cyberspace, and ever-larger segments of the electromagnetic spectrum. On the other hand, the information age and the absence of a peer competitor provide the United States the opportunity to pursue transformation to achieve radically new and more effective capabilities. Thus, we must transform to maintain overmatch over potential enemies and threats, operate in new environments, and capitalize upon opportunities to achieve unprecedented leaps in capabilities.

Digitization is the means by which we will achieve *information dominance* to enable mental agility, and is the number one modernization priority for the near- and mid-term. Digitization involves the use of modern communications capabilities and computers to enable commanders, planners, and executors to rapidly acquire, share, and use information. The digitization effort includes the fielding of the Army Battle Command System (ABCS), the central framework for networking the battlespace, to execute

operations faster and more decisively than the enemy. The cornerstone of this effort is the equipping of the First Digitized Division (FDD) by 2000 and the First Digitized Corps (FDC) by 2004.

Digitizing the Sustaining Base

The primary initiative for digitizing the Army installation is the Installation Information Infrastructure Modernization Program (I3MP). I3MP modernizes the digital infrastructure of Army installations to enable us to import best commercial practices and labor saving technology. This is a "key enabler' for implementing the Revolution in Military Logistics, Business Process Reengineering and support the Defense Reform Initiatives. This infrastructure is also critical to support deployed warfighters with reach back capabilities. I3MP has four components: (1) Outside Cable Rehabilitation which replaces totally inadequate copper wiring with a high capacity fiber backbone, (2) Common User Installation Transport Network (CUITN) provides servers and cables to connect the backbone to buildings and distribution nodes for high-speed data transfer on installations, (3) the Defense Information System Network (DISN) Router Program that provides gateways to the DISN (off-post connections) and network management capabilities, and (4) the MACOM Telephone Modernization Program that provides modern digital telephone switches and linkages to Army users.

Knowledge Management

The Army's Knowledge Management (KM) vision is to transform the Army institutional elements and operating forces into an information-age, networked organization that leverages its intellectual capital to better organize, equip, and maintain the world's premier land combat force. Our mission is to institutionalize knowledge management into Army culture and processes to achieve a sustaining momentum that will carry it forward through the Army beyond 2025. We will accomplish this through changes in organizational structure, facilities, people, processes, and technology.

The Army Knowledge Online (AKO) is the Army's focal point for knowledge management. Essentially, AKO is digitizing the institutional Army just as Force XXI is digitizing the tactical Army. AKO users are projected to reach over one million by 2005.

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Ultimately the intent is to have all uniformed, civilian, reserve, and (possible) retired Army personnel as AKO users, with each group and sub-group of users having access to content based on their specific information requirements and access permissions.

Two on-going KM projects that hold a great deal of promise to support force management and knowledge sharing efforts are the Army Flow Model and the HQDA Data Sharing Initiative. The Army flow model integrates functional systems across the personnel, logistics, and operational communities to support production of the Total Army Equipment Distribution Plan (TAEDP), the digitized force conversion studies, the Army National Guard Redesign, and Total Army Analysis 02-07. The HQDA Data Sharing Initiative allows for a single data collection effort, allows staff analysts to view one authoritative, time-synchronized source of data. It will also provide web access to on-line analytical processing (OLAP) capabilities, and single repository for Army systems meta-data; essentially a data mart for specific analytical requirements allowing expanded cross-functional analysis from a single source, leveraging the best commercial practices to support our warfighters.

Information Assurance

The Army's Information System Security Program (AISSP) supports two major Army force protection initiatives which are information assurance and computer network defense (CND) with the goals to secure the Army portion of the Defense Information Infrastructure (DII) and to provide secure information and information based system protection to the force. Securing the DII is accomplished by investments that develop, procure, and sustain Information System Security hardware, software, techniques, procedures and technologies needed to ensure sustainment of information and communications across the full spectrum of military operations. Information Assurance is not simply an "add-on" to existing IT, but is an integral part of IT development and investment from the identification and validation of a material solution to counter a threat or exploit technology.

The AISSP also provides for System Administrator/Network Administrator training to assess and counter computer hacker attacks and provides training for Information Systems Security Managers/Officers to assist them in understanding their ISSP responsibilities, as well as providing education and awareness for their leadership and Army commanders.

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The AISSP program includes defense of major Army Automated Systems both at the perimeter and in-depth, to protect them from disruption caused by attacks originating at multiple entry points. Operational support for Army Information Assurance is enhanced by the Army Computer Emergency Team (ACERT), at Fort Belvoir, VA; and its Regional Computer Emergency Response Teams (RCERT) in Hawaii, Fort Huachuca, AZ, and 5th Signal Command in Europe. The mission to provide information and information systems protection to the force consists of ensuring that vulnerabilities to Information Warfare Operations are mitigated and computer network attacks within the all phases of military operations in all environments are quickly detected and are protected to the greatest extent possible. The AISSP supports detecting system intrusions, alteration, and provides capability to react to information warfare attacks in a measured and coordinated manner. Another Regional Computer Emergency Response Team (RCERT) is being developed in Korea. Sustainment of the Army's initial network security improvements for the out years and continuation of information assurance modernization are key to realization of a truly protected force.

Army Enterprise Architecture

The Army Enterprise (AE) is defined as the entire Army—major commands, headquarters, agencies, installations, and Army forces—and the activities that those organizations perform. The AE represents the Army as a corporate entity and prescribes a new way of accomplishing the Army's missions by taking full advantage of IT, using innovative business practices, and synchronizing Army IT resource management activities toward common goals.

The Army Enterprise also extends beyond the Army and includes relationships with external organizations and activities. For example, the AE includes the relationships among Army forces, a superior joint command, and other Service forces assigned to the joint command. The AE also includes the relationships between the Army and government and non-government organizations and activities.

Successful warfighting in the 21st Century depends upon warfighters making rapid and correct decisions using accurate and timely information. The availability of such information depends upon information systems that are robust and fully interoperable within Army units and within the joint environment. Using DoD architectural methodology embodied in the C4ISR Framework

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Document, and under the mandate of the *Clinger-Cohen Act* of 1996, the Army Enterprise Architecture (AEA) is a cohesive approach to tying the design and fielding of such systems to warfighter requirements. It is now the basis for the Army CIO's (the DISC4) C4I/IT Investment Strategy that encourages synergies between functional areas. Thus, funding the AEA is necessary to attain the goals of Joint Vision 2010 and the CSA's goal of a digitized division by the year 2000, a digitized corps by 2004, and a digitized active Army by 2010. Current AEA efforts include the development of the First Digitized Division architecture and the Installation Information Infrastructure (I3A).

Accomplishments and Ongoing Program Initiatives

Public Key Infrastructure

On 6 May 1999, the DEPSECDEF issued a policy memorandum mandating the implementation of PKI across the DoD. The policy memorandum contained the following nine implementation milestones: (1) migrate Category (CAT) 1 Mission Critical Systems (MCS) [intel and C2] to Class 4 PKI certificates by Jun 00; (2) issue all private web servers located on classified and unclassified networks Class 3 PKI certificates by Jun 00; (3) use Class 3 PKI certificates for web server authentication via Secure Sockets Layer (SSL) by Jun 00; (4) deploy an infrastructure having the capability to issue Class 3 PKI certificates to each member of the organization (for Army this equates to 1.3M certificates) by Oct 01; (5) issue Class 3 PKI certificates to all DoD users by October 2001; (6) use Class 3 PKI certificates for user identification and authentication on all private web servers by Oct 01; (7) use Class 3 PKI Certificates to sign all electronic mail sent within the Department by Oct 01; (8) migrate all CAT 2 & 3 MCS to Class 4 PKI Certificates by 31 Dec 02; and (9) migrate all DoD users to Class 4 PKI Multi Token Cards by Jan 02. Army PKI complies with the DEPSECDEF mandate and is a critical component of electronic business/electronic commerce. Army PKI is a combination of products, services, facilities, policies, procedures, agreements, and people that provide for and sustains secure transactions on open networks. Through digital signatures and encryption, PKI provides four basic security services required to migrate the Army to paperless operations.

Army PKI will establish a management structure, process, and infrastructure to enable authentication, data integrity, nonrepudiation, and confidentiality in Army business processes through the use of digital signatures and public key encryption technologies. This will be accomplished through the development of policy, plans, and the establishment of Registration Authorities and Location Registration Authorities throughout the Army to conduct face to face user registration. In FY01, Army PKI will register 841,195 Army Personnel targeted to receive digital signature certificates and procure 212,532 smart card readers. The actual smart card stock required to begin the migration to Class 4 PKI certificates and implement a Common Access Card (CAC) in accordance with the DEPSECDEF mandates will be procured by the DoD Access Card Office in accordance with program reviews.

Standard Procurement System (SPS)

The Army's implementation of the SPS forms a foundation for implementing a paperless contracting process mandated by the DEPSECDEF. This process must be implemented NLT 1 January 2000. Army SPS fielding began in March 1998 to four Major Commands (MACOMs): SMDC, TRADOC, USARPAC and MEDCOM. On August 26, 1998 SMDC became the first MACOM not only within the Army, but also within OSD to achieve Full Operational Capability (FOC). The Army has an aggressive schedule to fully field SPS by 1 January 2000 to all 17 MACOMs, which include 239 separate sites and over 8,000 users. In conjunction with SPS fielding and to achieve a fully paperless contracting process, an Army Single Face to Industry (ASFI) is being developed and fielded to all contracting sites. The ASFI is a web-based product that will provide a single entry point for industry to determine what business opportunities are available within the Army. It also provides an electronic means to electronically issue solicitations, receive proposals and execute awards. The Army will also field systems such as the Integrated Requirements and Purchase Request System and Joint Computer-aided Acquisition and Logistics System to establish electronic links to the requirements community.

The Army continues to work with OSD to achieve a DoD solution for receipts, invoices/payments and contract closeouts. Three End-to-End Paperless Contracting Pilots at Ft. Campbell, KY (Installation), Soldier Support Command (Spares) and

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Communications and Electronics Command (major systems) are ongoing to support Army initiatives as well as OSD programs such as Electronic Document Access and Wide Area Work Flow.

Force XXI Battle Command Brigade and Below

The key to winning the information war is the Force XXI Battle Command Brigade and Below (FBCB2) that through the Tactical Internet will provide true, real time situational awareness. FBCB2 is a sub-element and a key component of the Army Battle Command System (ABCS). FBCB2, as a key component of the ABCS, is the critical framework to ensure the seamless integration and interoperability of tomorrow's digitized battlefield. FBCB2 is a digital, battle command information system that provides mounted/dismounted tactical combat, combat support and combat service support commanders, leaders and soldiers integrated, on-the-move, real-time/near-real time, battle command information and situational awareness from brigade down to the soldier/platform level across all battlefield functional areas.

FBCB2 integrates emerging and existing communication, weapon, and sensor systems to facilitate automated status, positional, situational, and combat awareness reporting. The system also integrates numerous existing command and control capabilities enabling the sharing of critical battlefield information in the near real time, which previously was not readily accessible. The command and control capability is fully integrated and expands from the strategic level to the platoon leader, including joint and multinational capabilities.

Spectrum Management

The Army's future warfighting strategy depends upon unhampered access to the electromagnetic spectrum. The Army Spectrum Management (ASM) office is the focal point for Army electromagnetic spectrum issues. The ASM office is responsible for acquiring, retaining and defending Army access to the electromagnetic spectrum in CONUS and works with Army components

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of the Unified CINCs OCONUS. Assured electromagnetic spectrum access is accomplished through the ASM's office via the Spectrum Certification Program/Host Nation Coordination processes, and participation in national and international forums. These processes minimize the potential for spectrum interference during the fielding and employment of spectrum dependent equipment. Assured access to the electromagnetic spectrum will always be key to the success of the Army's Mission in support of the National Military Strategy. The ASM office stays engaged with national and international military, civil and commercial partners to mitigate the impact of reallocation of the electromagnetic spectrum from military to commercial use.

Almost every year, the Army is faced with the possible reduction of assured access to the electromagnetic spectrum. The Omnibus Budget Reconciliation Act of 1993 and the Balanced Budget Act of 1997 mandated rapid reallocation of the electromagnetic spectrum from governmental use to commercial use. These acts coupled with increase pressure from market forces will only exacerbate the issue until balance is achieved.

Distance Learning

Training, coupled with superior information systems and equipment, ensures that soldiers are prepared to win on the complex battlefield of the future in all patterns of operation .. To ensure the quality of our military personnel, and a trained & ready force, we must place the highest priority on training and education. The distance learning program is vital to this effort in that it produces trained soldiers. We are leveraging current information technology systems to deliver training and education to our soldiers via multiple media formats. Media formats include interactive CDROM, video-teletraining, and web-based (Internet). The use of Computer Based Training capabilities is a method to raise the "Information Technology IQ" throughout the Force. Army Distance learning addresses how the Army will integrate distance learning technologies to train the total force (Active, USAR, NG, and civilian) in a cost-effective manner. The program is in the beginning stages of implementation and is evolving through testing and technological advancements. The design is based on international standards and the principles of open systems standards. The goal is to be flexible as requirements and technology advance. As these capabilities expand and improve along with distance learning, unimpeded and encouraged access to network based education and training opportunities will become an incredible incentive to our soldiers.

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Comparison to President's Budget

	Appropriated Funds			Difference			
	President's l	Budget 00	President's I	Budget 01	FY99 - FY99	FY00 - FY00	
			Do	llars in \$000			
	FY99	FY00	FY99	FY00			
Procurement	782172	831620	1221742	1275238	439570	443618	
Military Construction	7600	0	7600	0	0	0	
Military Pay	102575	96922	98410	105673	-4165	8751	
Operation and	1526075	1762478	1698448	1719304	172373	-43174	
Maintenance							
R&D	276721	324313	485951	605419	209230	281106	
Family Housing	1752	382	3556	3198	1804	2816	
DWCF	163321	172032	163555	181131	234	9099	
Total	2860216	3187747	3679262	3889963	819046	702216	

Both FY99 and FY00 totals include increases over the FY00 President's Budget submission (29% and 22% respectfully). One of the reasons for the increase in FY99 is attributed to receipt of the \$227M Y2K supplemental. Resources for Systems formerly reported in the Congressional Justification Book (CJB) are now reported in this budget submission (\$573M/FY99 and \$643M/FY00. The Wholesale Logistics Modernization Program (WLMP), Distributive Training Technology (DTT) and Public Key Infrastructure (PKI) are also new initiatives for this submission.

Beginning in FY01, funding was realigned from the Operation and Maintenance appropriations to Research, Development Test and Evaluation (RDT&E) and Procurement appropriations due to Congressional (HAC) direction and subsequent OUSD© guidance to adjust IT budgeting. These are NOT new starts or unexpected program growth.

Y2K Supplemental Management Plan

The Army received \$227.2M from the FY 1999 Omnibus Supplemental for Information Technology and Critical Infrastructure known as the Y2K Supplemental. The major funding categories were End-to-end Testing (\$27.362M), Switches (\$34.7M), Integration Testing (\$67.621M), Operational Planning (\$68.917M), and Base-level Infrastructure (\$24.3M).*

Testing activities consumed 42% of the Emergency Supplemental Appropriation allocation and were used for end-to-end testing of systems within a functional area, such as personnel or logistics. In some cases, these end-to-end tests involved other Services and components, such as the Logistics CAPSTONE Assessment being conducted by the Under Secretary of Defense (Acquisition and Technology). In the majority of cases, the funds were used to execute functional end-to-end tests within Army functional areas, such as weapons systems, logistics, personnel, facilities and installations, command control and communications.

The Army components of the Unified Commands participated in a series of CINC Operational Evaluations required by the Strom Thurmond National Defense Authorization Act for FY 1999 and the DoD Appropriations Act, 1999. Plans called for over 25 major military exercises involving Year 2000 events and testing the critical warfighting threads necessary to execute the national military strategy. Approximately 27% of the Army's allocation were used to support these high level evaluations of the Army's warfighting capabilities. The systems testing during the CINC Operational Evaluations may also be tested by other functional end-to-end tests conducted within mission areas such as logistics. The Army has completed 164 of the 212 planned CINC and Army Operational Evaluations and executed 4 Contingency Assessments for the Joint Staff.

The Second Supplemental funding provided support for base-level infrastructure at Army installations to ensure interoperable communications was not degraded or otherwise interrupted at the change of the millennium. Addressed in this project were those

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systems associated with local area/wide area/base networks that support warfighting organizations in garrison, deployed forces throughout all AORs and base functions that are essential to be the projection and sustainment of warfighting power.

A majority of the funds were expended within the categories originally identified by the Major Commands, PEOs and miscellaneous organizations. Approximately 2% of the funds were moved into other categories to cover more pressing needs.

Below is the breakout by category and appropriation.

	OMA	RDTE	OPA	OMNG	OMAR
End-to-End Testing	11.619	.943	9.8	0.0	5.0
Switches	0.0	0.0	34.7	0.0	0.0
Integration Testing	42.790	3.650	21.181	0.0	0.0
Operational Planning	117.80	24.593	2.0	3.524	0.0
Base-Level Infrastructure	0.0	12.3	7.0	0.0	5.0
OSD Add-on	3.0				

• *An additional 1.3M provided for a classified program and 3.0M for Independent Validation & Verification Centers.

Initiative	IT_DII Title	Page Number
ADP SERVICES FROM DISA	OTHER APPLICATIONS PROCESSING	<u>56</u>
ADP SUPPORT PERSONNEL (NON-DATA	INFORMATION MANAGEMENT	<u>56</u> <u>36</u>
PROCESSING INSTALLATION/NON-DIRECTOR OF IM)		
ADVANCED FIELD ARTILLERY TACTICAL	COMMAND AND CONTROL	<u>27</u>
DATA SYSTEM		
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ACQUISITION MANAGEMENT		
ALL OTHER (RTA) SPECTRUM ACTIVITIES	SPECTRUM MANAGEMENT	<u>61</u>

	(Dollars in Thousands)		
	FY 1999	FY 2000	FY 2001
Grand Total	3,679,262	3,889,963	3,951,541
Development Modernization	1,832,149	1,974,553	2,074,795
Current Services	1,847,113	1,915,410	1,876,746
Major	1,350,989	1,437,190	1,529,078
Development Modernization	974,034	1,060,433	1,150,830
Current Services	376,955	376,757	378,248
Non-Major	2,115,708	2,252,243	2,227,574
Development Modernization	822,943	871,414	891,793
Current Services	1,292,765	1,380,829	1,335,781
All Other	212,565	200,530	194,889
Development Modernization	35,172	42,706	32,172
Current Services	177,393	157,824	162,717

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	(Dollars in Thousands)		
	FY 1999	FY 2000	FY 2001
Functional Area Applications	2,244,373	2,331,261	2,337,985
CIVILIAN PERSONNEL	13,093	22,212	22,116
Major	13,093	22,212	22,116
DEFENSE CIVILIAN PERSONNEL DATA SYSTEM	13,093	22,212	22,116
Development Modernization	3,752	5,858	7,573
O&M, Army	3,399	335	0
Oth Proc, Army	353	5,523	7,573
Current Services	9,341	16,354	14,543
O&M, Army	9,341	16,354	14,543
COMMAND AND CONTROL	963,252	1,099,282	1,127,638
Major	278,347	306,259	329,760
ADVANCED FIELD ARTILLERY TACTICAL DATA	96,942	104,696	113,338
<u>SYSTEM</u>			
Development Modernization	96,701	103,404	112,030
Oth Proc, Army	62,132	62,544	75,214
RDT&E, Army	34,569	40,860	36,816
Current Services	241	1,292	1,308
O&M, Army	205	1,253	1,269
Mil Pers, Army	36	39	39

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(Dollars in Thousands)

	(20	nais in Thousai	i disj
	FY 1999	FY 2000	FY 2001
COMBAT SERVICE SUPPORT CONTROL SYSTEM	23,999	33,529	43,901
Development Modernization	22,048	31,093	41,247
Oth Proc, Army	9,387	19,995	27,411
RDT&E, Army	12,590	11,017	13,753
Mil Pers, Army	71	81	83
Current Services	1,951	2,436	2,654
O&M, Army	1,951	2,436	2,654
FORWARD AREA AIR DEFENSE COMMAND AND	31,205	28,523	38,749
CONTROL SYSTEM			
Development Modernization	31,205	28,523	38,749
Oth Proc, Army	26,210	21,627	23,313
RDT&E, Army	4,637	6,496	15,024
Mil Pers, Army	358	400	412
GLOBAL COMMAND AND CONTROL SYSTEM	84,404	68,440	61,509
Development Modernization	38,219	24,841	24,995
Oth Proc, Army	20,406	12,903	10,355
RDT&E, Army	17,455	11,542	14,234
Mil Pers, Army	358	396	406
Current Services	46,185	43,599	36,514
O&M, Army	44,604	42,250	35,127
Mil Pers, Army	1,581	1,349	1,387

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(Dollars in Thousands)

	(
	FY 1999	FY 2000	FY 2001	
MANEUVER CONTROL SYSTEM	41,797	71,071	72,263	
Development Modernization	41,724	70,943	72,133	
Oth Proc, Army	12,755	24,886	22,935	
RDT&E, Army	28,720	45,776	48,910	
Mil Pers, Army	249	281	288	
Current Services	73	128	130	
O&M, Army	0	51	51	
Mil Pers, Army	73	77	79	
Non-Major	670,061	776,926	780,541	
ARMY DIGITIZATION	40,056	29,941	29,671	
Development Modernization	40,056	29,941	29,671	
RDT&E, Army	40,056	29,941	29,671	
ARMY TACTICAL COMMAND AND CONTROL	83,140	83,925	88,931	
SYSTEM ENGINEERING AND INTEGRATION				
Development Modernization	83,140	83,925	88,931	
Oth Proc, Army	54,224	51,315	60,121	
RDT&E, Army	28,916	32,610	28,810	

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(Dollars in Thousands)

	(Donars in Thousanus)		
	FY 1999	FY 2000	FY 2001
BATTLEFIELD COMBAT IDENTIFICATION	20,352	52,009	24,162
SYSTEM			
Development Modernization	20,352	52,009	24,162
Missile Procurement, Army	0	16	0
Oth Proc, Army	4,832	7,945	13,096
Proc, W&TCV, Army	0	5,308	5,704
RDT&E, Army	15,520	38,740	5,362
COMBAT TERRAIN INFORMATION SYSTEM	21,606	29,696	25,625
Development Modernization	21,606	29,696	25,625
Oth Proc, Army	18,398	24,388	20,030
RDT&E, Army	3,208	5,308	5,595
COMMAND AND CONTROL VEHICLE	45,134	58,364	0
Development Modernization	45,134	58,364	0
Proc, W&TCV, Army	45,134	58,364	0
DOD NATIONAL AIRSPACE SYSTEM	10,503	18,133	2,026
Development Modernization	1,550	4,911	2,026
RDT&E, Army	1,550	4,911	2,026
Current Services	8,953	13,222	0
Acft Proc, Army	8,953	13,222	0

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(Dollars in Thousands)

(Donats in Thousands)		
FY 1999	FY 2000	FY 2001
56,328	65,176	124,403
56,328	65,176	124,403
0	0	60,802
56,328	65,176	63,601
0	0	783
0	0	783
0	0	783
5,916	0	0
5,916	0	0
5,916	0	0
451	41,387	92,946
451	41,387	92,946
451	41,387	92,946
68,628	83,244	45,282
10,884	11,797	9,212
7	0	0
5,102	4,334	1,922
4,779	6,334	6,127
996	1,129	1,163
	FY 1999 56,328 56,328 0 56,328 0 0 5,916 5,916 5,916 5,916 451 451 451 451 451 47 5,102 4,779	FY 1999 56,328 65,176 56,328 65,176 0 0 56,328 65,176 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 00 0 0 0 0 0 0 0 0 0 0 0 0 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

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(Dollars in Thousands)

FY 1999	FY 2000	FY 2001
57,744	71,447	36,070
10,870	8,261	7,672
0	13,700	0
2,769	2,669	2,659
43,960	46,663	25,582
145	154	157
104,143	100,752	137,818
104,143	92,966	130,326
92,565	51,579	37,380
11,578	41,387	92,946
0	7,786	7,492
0	7,786	7,492
6,915	14,352	14,690
1,941	1,791	1,840
1,941	1,791	1,840
4,974	12,561	12,850
4,974	12,561	12,850
206,889	199,947	194,204
206,889	199,947	192,744
167,777	180,361	152,532
39,112	19,586	40,212
	57,744 10,870 0 2,769 43,960 145 104,143 104,143 92,565 11,578 0 0 6,915 1,941 1,941 4,974 4,974 206,889 167,777	57,744 71,447 10,870 8,261 0 13,700 2,769 2,669 43,960 46,663 145 154 104,143 100,752 104,143 92,966 92,565 51,579 11,578 41,387 0 7,786 0 7,786 6,915 14,352 1,941 1,791 1,941 1,791 4,974 12,561 4,974 12,561 206,889 199,947 167,777 180,361

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(Dollars in Thousands)

	(Dollars in Thousands)		
	FY 1999	FY 2000	FY 2001
Current Services	0	0	1,460
O&M, Army	0	0	1,460
All Other	14,844	16,097	17,337
ALL OTHER (FAA) COMMAND AND CONTROL	14,844	16,097	17,337
Development Modernization	7,520	8,620	9,662
Oth Proc, Army	5,619	6,319	7,891
RDT&E, Army	1,901	2,301	1,771
Current Services	7,324	7,477	7,675
O&M, Army	5,554	5,563	5,716
Mil Pers, Army	1,770	1,914	1,959
ECONOMIC SECURITY	25,050	22,573	23,306
Major	18,568	14,133	14,164
INSTALLATION SUPPORT MODULES (DOWN	18,568	14,133	14,164
SCOPE OF SBIS 1853)	ŕ	·	·
Development Modernization	0	0	4,677
RDT&E, Army	0	0	4,677
Current Services	18,568	14,133	9,487
O&M, Army	18,568	14,133	9,487

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(Dollars in Thousands)

	(20	iidib iii Tiiddbai	i disj
	FY 1999	FY 2000	FY 2001
All Other	6,482	8,440	9,142
ALL OTHER (FAA) ECONOMIC SECURITY	6,482	8,440	9,142
Development Modernization	636	996	972
O&M, Army	175	580	527
Oth Proc, Army	461	416	445
Current Services	5,846	7,444	8,170
O&M, Army	2,297	4,210	4,947
FH Ops, Army	3,476	3,157	3,144
Mil Pers, Army	73	77	79
ENVIRONMENTAL SECURITY	7,970	7,957	6,648
All Other	7,970	7,957	6,648
ALL OTHER (FAA) ENVIRONMENTAL SECURITY	7,970	7,957	6,648
Development Modernization	6,476	7,957	6,648
O&M, Army	6,476	6,357	6,003
Oth Proc, Army	0	1,600	645
Current Services	1,494	0	0
O&M, Army	1,494	0	0

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(Dollars in Thousands)

	(Dollars in Thousands)		
	FY 1999	FY 2000	FY 2001
FINANCE	3,225	4,201	5,051
All Other	3,225	4,201	5,051
ALL OTHER (FAA) FINANCE	3,225	4,201	5,051
Development Modernization	0	1,000	1,935
O&M, Army	0	1,000	1,935
Current Services	3,225	3,201	3,116
O&M, Army	2,959	2,921	2,830
O&M, Army NG	266	280	286
HEALTH	7,680	21,003	6,162
Non-Major	7,680	21,003	6,162
MEDICAL COMMUNICATIONS FOR COMBAT	7,680	21,003	6,162
CASUALTY CARE			
Development Modernization	7,680	21,003	5,680
O&M, Army	640	0	0
Oth Proc, Army	7,040	21,003	2,459
RDT&E, Army	0	0	3,221
Current Services	0	0	482
O&M, Army	0	0	482

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F 1 2001 B	iugei Estimates		
	(Dollars in Thousands)		
	FY 1999	FY 2000	FY 2001
INFORMATION MANAGEMENT	114,012	115,205	112,530
Non-Major	100,839	102,388	100,712
ADP SUPPORT PERSONNEL (NON-DATA	100,839	102,388	100,712
PROCESSING INSTALLATION/NON-DIRECTOR			
Current Services	100,839	102,388	100,712
O&M, Army	73,237	71,582	69,426
O&M, Army Res	2,923	5,947	5,994
FH Ops, Army	9	0	0
Missile Procurement, Army	168	176	186
RDT&E, Army	2,890	3,149	3,108
Mil Pers, Army	9,179	10,620	10,865
Res Pers, Army	71	81	83
DWCF Operations	12,362	10,833	11,050
All Other	13,173	12,817	11,818
ALL OTHER (FAA) INFORMATION MANAGEMENT	13,173	12,817	11,818
Development Modernization	2,525	1,029	1,031
Oth Proc, Army	1,025	1,029	1,031
DWCF Capital	1,500	0	0
Current Services	10,648	11,788	10,787
O&M, Army	4,047	5,844	4,838
RDT&E, Army	6,433	5,773	5,778
Mil Pers, Army	36	39	39
DWCF Operations	132	132	132
-			

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-	1 2001 Daaget Estimates		
	(Dollars in Thousands)		
	FY 1999	FY 2000	FY 2001
INTELLIGENCE	73,489	118,528	117,627
Major	69,432	114,528	113,491
ALL SOURCE ANALYSIS SYSTEM	69,432	114,528	113,491
Development Modernization	69,432	114,271	113,452
Oth Proc, Army	34,186	61,023	69,368
RDT&E, Army	35,246	53,248	44,084
Current Services	0	257	39
O&M, Army	0	218	0
Mil Pers, Army	0	39	39
All Other	4,057	4,000	4,136
ALL OTHER (FAA) INTELLIGENCE	4,057	4,000	4,136
Current Services	4,057	4,000	4,136
O&M, Army	4,057	4,000	4,136

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(Dollars in Thousands)

	(Donars in Thousands)		
	FY 1999	FY 2000	FY 2001
LOGISTICS	442,266	378,117	347,718
Major	206,883	179,196	181,466
JOINT COMPUTER AIDED ACQUISITION AND	123,552	88,972	125,662
LOGISTICS SUPPORT			
Development Modernization	111,548	74,299	101,030
O&M, Army	82,676	42,057	0
Oth Proc, Army	28,801	32,161	58,791
RDT&E, Army	0	0	42,156
Mil Pers, Army	71	81	83
Current Services	12,004	14,673	24,632
O&M, Army	12,004	14,673	24,632
JOINT TOTAL ASSET VISIBILITY SYSTEM	15,429	0	0
Current Services	15,429	0	0
O&M, Army	15,429	0	0
TOTAL DISTRIBUTION PROGRAM	46,910	40,751	29,902
Development Modernization	35,373	31,747	19,442
Oth Proc, Army	35,373	31,747	19,442
Current Services	11,537	9,004	10,460
O&M, Army	11,537	9,004	10,460

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(Dollars in Thousands)

	EV 1000	EV 2000	EV 2001
	FY 1999	FY 2000	FY 2001
TRANSPORTATION COORDINATORS AUTOMATED	20,992	49,473	25,902
INFORMATION SYSTEM II			
Development Modernization	12,312	38,221	18,455
O&M, Army	9,627	19,468	0
Oth Proc, Army	2,685	18,753	10,376
RDT&E, Army	0	0	8,079
Current Services	8,680	11,252	7,447
O&M, Army	8,609	11,171	7,364
Mil Pers, Army	71	81	83
Non-Major	176,615	139,201	121,164
AUTOMATED IDENTIFICATION TECHNOLOGY	12,222	12,761	7,615
Development Modernization	10,998	11,475	7,505
O&M, Army	2,840	2,415	0
Oth Proc, Army	8,158	9,060	7,505
Current Services	1,224	1,286	110
O&M, Army	1,224	1,286	110
COMMODITY COMMAND STANDARD SYSTEM	44,369	23,660	23,993
Development Modernization	19,583	4,629	6,240
DWCF Capital	19,583	4,629	6,240
Current Services	24,786	19,031	17,753
O&M, Army	10,038	7,133	5,053
DWCF Capital	2,280	1,000	2,770
DWCF Operations	12,468	10,898	9,930

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(Dollars in Thousands)

	(Donars in Thousands)		
	FY 1999	FY 2000	FY 2001
LOGISTICS DII SUPPORT	14,357	22,161	14,457
Development Modernization	14,357	22,161	0
O&M, Army	14,357	22,161	0
Current Services	0	0	14,457
O&M, Army	0	0	14,457
LOGISTICS SUPPLY SYSTEMS	18,799	20,081	15,503
Current Services	18,799	20,081	15,503
O&M, Army	16,784	18,066	13,488
DWCF Operations	2,015	2,015	2,015
STANDARD ARMY MAINTENANCE SYSTEM	15,638	1,035	884
Development Modernization	9,619	135	0
O&M, Army	3,324	135	0
Oth Proc, Army	6,295	0	0
Current Services	6,019	900	884
O&M, Army	6,019	900	884
STANDARD ARMY RETAIL SUPPLY SYSTEM	23,170	3,804	1,856
Development Modernization	16,317	1,061	0
O&M, Army	6,271	1,061	0
Oth Proc, Army	9,975	0	0
Mil Pers, Army	71	0	0
Current Services	6,853	2,743	1,856
O&M, Army	6,853	2,743	1,856

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(Dollars in Thousands)

	FY 1999	FY 2000	FY 2001
STANDARD DEPOT SYSTEM	22,418	18,070	11,462
Development Modernization	10,364	600	1,000
DWCF Capital	10,364	600	1,000
Current Services	12,054	17,470	10,462
O&M, Army	2,500	3,727	450
DWCF Capital	0	3,971	0
DWCF Operations	9,554	9,772	10,012
UNIT LEVEL LOGISTICS SYSTEM	24,793	900	884
Development Modernization	17,932	0	0
O&M, Army	4,440	0	0
Oth Proc, Army	13,492	0	0
Current Services	6,861	900	884
O&M, Army	6,861	900	884
WHOLESALE LOGISTICS MODERNIZATION	0	32,000	42,508
Development Modernization	0	32,000	35,600
DWCF Capital	0	32,000	35,600
Current Services	0	0	6,908
O&M, Army	0	0	6,908
WORLDWIDE PORT SYSTEM	849	4,729	2,002
Development Modernization	849	1,278	1,002
Oth Proc, Army	849	1,278	1,002
Current Services	0	3,451	1,000
O&M, Army	0	3,451	1,000

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(Dollars in Thousands)

	(Dollars in Thousands)			
	FY 1999	FY 2000	FY 2001	
All Other	58,768	59,720	45,088	
ALL OTHER (FAA) LOGISTICS	58,768	59,720	45,088	
Development Modernization	35,508	44,265	30,954	
O&M, Army	4,941	1,700	1,016	
Oth Proc, Army	3,034	4,983	3,214	
RDT&E, Army	0	0	0	
DWCF Capital	27,533	37,582	26,724	
Current Services	23,260	15,455	14,134	
O&M, Army	20,913	12,940	11,566	
Mil Pers, Army	1,511	2,394	2,447	
DWCF Capital	715	0	0	
DWCF Operations	121	121	121	
MILITARY PERSONNEL AND READINESS	132,912	144,393	153,333	
Major	37,912	36,938	37,983	
ARMY RECRUITING INFORMATION SUPPORT	16,983	22,825	19,972	
<u>SYSTEM</u>				
Development Modernization	14,956	19,174	15,149	
O&M, Army	4,356	10,305	0	
Oth Proc, Army	10,529	8,788	6,452	
RDT&E, Army	0	0	8,614	
Mil Pers, Army	71	81	83	

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(Dollars in Thousands)

(Donars in Thousands)		
FY 1999	FY 2000	FY 2001
2,027	3,651	4,823
2,027	3,651	4,823
20,929	14,113	18,011
15,653	12,671	16,148
4,427	7,218	0
11,226	5,453	6,911
0	0	9,237
5,276	1,442	1,863
5,063	1,200	1,614
213	242	249
36,078	56,344	64,652
2,373	20,875	25,149
0	5,973	10,921
0	5,973	10,921
2,373	14,902	14,228
2,373	14,902	14,228
14,908	15,235	19,976
496	434	6,458
496	434	6,458
	FY 1999 2,027 2,027 20,929 15,653 4,427 11,226 0 5,276 5,063 213 36,078 2,373 0 0 2,373 2,373 14,908	FY 1999 2,027 3,651 2,027 3,651 2,027 3,651 20,929 14,113 15,653 12,671 4,427 7,218 11,226 5,453 0 0 5,276 1,442 5,063 1,200 213 242 36,078 56,344 2,373 20,875 0 5,973 0 5,973 2,373 14,902 14,902 14,908 15,235

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(Dollars in Thousands)

	(Donars in Thousanus)		
	FY 1999	FY 2000	FY 2001
Current Services	14,412	14,801	13,518
O&M, Army	14,232	14,604	13,317
Mil Pers, Army	180	197	201
PERSONNEL ENTERPRISE SYSTEM-AUTOMATION	18,797	20,234	19,527
Development Modernization	6,085	7,512	7,516
Oth Proc, Army	6,085	7,512	7,516
Current Services	12,712	12,722	12,011
O&M, Army	12,712	12,722	12,011
All Other	58,922	51,111	50,698
ALL OTHER (FAA) MILITARY PERSONNEL AND	58,922	51,111	50,698
READINESS			
Development Modernization	10,001	7,462	6,343
O&M, Army	4,641	385	134
Oth Proc, Army	5,360	7,077	6,209
Current Services	48,921	43,649	44,355
O&M, Army	33,133	26,820	30,599
O&M, Army Res	9,365	8,961	5,851
O&M, Army NG	1,198	2,341	2,266
Mil Pers, Army	4,866	5,094	5,199
Res Pers, Army	359	433	440

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(Dollars in Thousands)

	(Dollars in Thousands)			
	FY 1999	FY 2000	FY 2001	
OTHER (NOT OTHERWISE SPECIFIED)	14,199	13,319	13,613	
All Other	14,199	13,319	13,613	
ALL OTHER (FAA) OTHER FUNCTIONAL AREA	14,199	13,319	13,613	
Current Services	14,199	13,319	13,613	
O&M, Army	12,861	11,765	12,026	
Mil Pers, Army	1,338	1,554	1,587	
POLICY	5,306	6,476	5,826	
All Other	5,306	6,476	5,826	
ALL OTHER (FAA) POLICY	5,306	6,476	5,826	
Development Modernization	629	0	0	
Oth Proc, Army	629	0	0	
Current Services	4,677	6,476	5,826	
O&M, Army	4,392	6,156	5,499	
Mil Pers, Army	285	320	327	

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(Dollars in Thousands)

	(D0	nars in Thousai	ias)
	FY 1999	FY 2000	FY 2001
PROCUREMENT/CONTRACT ADMINISTRATION	3,131	7,187	3,348
All Other	3,131	7,187	3,348
ALL OTHER (FAA) PROCUREMENT/CONTRACT	3,131	7,187	3,348
ADMINISTRATION			
Current Services	3,131	7,187	3,348
O&M, Army	2,564	6,755	2,916
O&M, Army NG	135	0	0
DWCF Operations	432	432	432
RESERVE AFFAIRS	147,273	102,053	111,390
Major	147,273	102,053	111,390
RESERVE COMPONENT AUTOMATION SYSTEM	147,273	102,053	111,390
Development Modernization	82,300	58,800	67,900
Oth Proc, Army	82,300	58,800	67,900
Current Services	64,973	43,253	43,490
O&M, Army Res	11,104	6,860	6,646
O&M, Army NG	18,902	11,283	11,997
Oth Proc, Army	33,900	23,900	23,600
Res Pers, Army	1,067	1,210	1,247

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(Dollars in Thousands)

(Donars in Thousands)			
FY 1999	FY 2000	FY 2001	
259,255	240,046	248,765	
163,673	150,138	162,862	
120,690	95,747	111,946	
104,790	77,851	88,898	
87,946	64,713	81,160	
9,244	13,138	7,738	
7,600	0	0	
15,900	17,896	23,048	
15,900	17,896	23,048	
42,983	54,391	50,916	
42,983	54,391	47,772	
0	0	0	
42,983	54,391	47,772	
0	0	3,144	
0	0	3,144	
83,154	78,228	73,401	
10,403	9,345	9,324	
9,872	9,134	9,112	
8,753	7,867	7,774	
1,119	1,267	1,338	
531	211	212	
531	211	212	
	FY 1999 259,255 163,673 120,690 104,790 87,946 9,244 7,600 15,900 15,900 42,983 0 42,983 0 42,983 0 83,154 10,403 9,872 8,753 1,119 531	FY 1999 259,255 240,046 163,673 150,138 120,690 95,747 104,790 77,851 87,946 64,713 9,244 13,138 7,600 0 15,900 17,896 15,900 17,896 42,983 54,391 0 0 42,983 54,391 0 0 42,983 54,391 0 0 0 83,154 78,228 10,403 9,345 9,872 9,134 8,753 7,867 1,119 1,267 531 211	

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(Dollars in Thousands)

	(Dollars in Thousands)		
	FY 1999	FY 2000	FY 2001
SIMULATION TECHNOLOGY/WARGAMING	72,751	68,883	64,077
Development Modernization	6,294	5,820	10,190
Oth Proc, Army	6,294	5,820	10,190
Current Services	66,457	63,063	53,887
O&M, Army	50,667	42,664	35,939
RDT&E, Army	10,278	14,553	11,937
Mil Pers, Army	5,512	5,846	6,011
All Other	12,428	11,680	12,502
ALL OTHER (FAA) SCIENCE AND TECHNOLOGY	12,428	11,680	12,502
Development Modernization	1,956	1,922	1,989
O&M, Army	1,037	1,050	1,063
Oth Proc, Army	619	547	601
RDT&E, Army	300	325	325
Current Services	10,472	9,758	10,513
O&M, Army	4,525	3,786	4,541
RDT&E, Army	5,737	5,762	5,762
DWCF Operations	210	210	210

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(Dollars in Thousands)

(Du	us)	
FY 1999	FY 2000	FY 2001
21,254	16,539	20,087
21,254	16,539	20,087
21,254	16,539	20,087
1,904	2,887	4,924
1,904	2,887	3,005
0	0	1,919
19,350	13,652	15,163
15,451	9,458	3,628
5	0	0
2,384	2,618	2,062
1,226	1,253	9,141
284	323	332
11,006	12,170	12,827
11,006	12,170	12,827
11,006	12,170	12,827
3,482	3,946	3,464
3,482	3,946	3,464
7,524	8,224	9,363
6,630	7,228	8,340
894	996	1,023
	FY 1999 21,254 21,254 21,254 1,904 1,904 1,904 15,451 5 2,384 1,226 284 11,006 11,006 3,482 3,482 7,524 6,630	21,254 16,539 21,254 16,539 1,904 2,887 1,904 2,887 0 0 19,350 13,652 15,451 9,458 5 0 2,384 2,618 1,226 1,253 284 323 11,006 12,170 11,006 12,170 3,482 3,946 3,482 3,946 7,524 8,224 6,630 7,228

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(Dollars in Thousands)

	(DO	mars in Thousai	ius)
	FY 1999	FY 2000	FY 2001
Communications and Computing Infrastructure	1,388,684	1,516,754	1,567,838
DEFENSE MESSAGE SYSTEM	40,762	42,276	34,130
Major	40,762	42,276	34,130
DEFENSE MESSAGE SYSTEM	40,762	42,276	34,130
Development Modernization	32,262	29,071	19,169
O&M, Army	13,591	10,379	0
Oth Proc, Army	18,386	18,369	18,836
Mil Pers, Army	285	323	333
Current Services	8,500	13,205	14,961
O&M, Army	8,500	13,205	14,961
ELECTRONIC BUSINESS/ELECTRONIC COMMERCE	30,791	7,852	1,068
Non-Major	30,791	7,852	1,068
ELECTRONIC COMMERCE	30,791	7,852	1,068
Development Modernization	11,626	6,791	0
Oth Proc, Army	11,626	6,791	0
Current Services	19,165	1,061	1,068
O&M, Army	19,165	1,061	1,068

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(Dollars in Thousands)

	(100	(Donars in Thousands)		
	FY 1999	FY 2000	FY 2001	
DISTANCE LEARNING SYSTEMS	47,652	45,570	50,207	
Major	47,652	45,570	50,207	
ARMY DISTANCE LEARNING PROGRAM	47,652	45,570	50,207	
Development Modernization	37,130	31,436	29,939	
O&M, Army	12,613	16,145	0	
Oth Proc, Army	24,517	15,291	25,039	
RDT&E, Army	0	0	4,900	
Current Services	10,522	14,134	20,268	
O&M, Army	10,522	14,134	20,268	

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(Dollars in Thousands) FY 1999 **FY 2000** FY 2001 LONG HAUL/WIDE AREA 321,077 401,663 404,971 321,077 401,663 404,971 Non-Major LEASED TELECOMMUNICATIONS (NON-SYSTEM 321,077 401,663 404,971 **SPECIFIC**) **Current Services** 321,077 401,663 404,971 O&M, Army 198,399 277,668 288,533 O&M, Army Res 35,410 44,823 45,824 O&M, Army NG 71,908 68,682 60,243 Acft Proc, Army 55 45 45 Missile Procurement, Army 670 837 914 Oth Proc, Army 136 145 0 RDT&E, Army 6,503 797 527 Mil Pers, Army 4,574 4,828 4,927 **DWCF Operations** 3,838 3,422 3,958

OTHER COMMUNICATION INFRASTRUCTURE ACTIVITIES	22,005	73,623	113,443
Major	21,556	73,216	113,028
GLOBAL COMBAT SUPPORT SYSTEM - ARMY	21,556	73,216	113,028
Development Modernization	21,200	67,116	102,001
O&M, Army	17,276	39,468	0
Oth Proc, Army	3,924	27,567	29,963
RDT&E, Army	0	0	71,955
Mil Pers, Army	0	81	83

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(Dollars in Thousands)

	(100	mais m inousui	ius)
	FY 1999	FY 2000	FY 2001
Current Services	356	6,100	11,027
O&M, Army	356	6,100	10,982
O&M, Army Res	0	0	0
O&M, Army NG	0	0	45
All Other	449	407	415
ALL OTHER (CCI) COMM. INFRASTRUCTURE	449	407	415
(REF. B2D)			
Current Services	449	407	415
O&M, Army	449	407	415
MAIN-FRAME PROCESSING	8,908	5,574	14,941
Non-Major	8,908	5,574	14,941
STAND-ALONE MAINFRAME COMPUTERS	8,908	5,574	14,941
OPERATING COSTS	ŕ		•
Current Services	8,908	5,574	14,941
O&M, Army	7,504	4,193	13,583
Missile Procurement, Army	91	92	92
DWCF Operations	1,313	1,289	1,266

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(Dollars in Thousands) FY 1999 FY 2000 FY 2001 MID TIER PROCESSING 362,169 381,678 346,855 Major 115,378 154,017 102,840 INSTALLATION INFORMATION INFRASTRUCTURE 154,017 102,840 115,378 **MODERNIZATION PROGRAM Development Modernization** 103,388 148,000 98,674 Oth Proc, Army 103,388 148,000 98,674 **Current Services** 11,990 4,166 6,017 11,990 6,017 4,166 O&M, Army 246,791 227,661 244,015 Non-Major DCSIM/DOIM STAFF OPERATIONS COSTS 226,119 242,235 223,561 Current Services 223,561 226,119 242,235 120,901 O&M, Army 131,321 121,228 21,469 28,349 32,947 O&M, Army Res O&M, Army NG 52,056 52,530 57,636 9,209 10,709 Mil Pers, Army 10,464 Res Pers, Army 1,355 1,179 1,318 **DWCF Operations** 12,840 13,031 13,373 **USAREUR COMMUNITY AUTOMATION SYSTEM** 23,230 1,542 1,780 **Development Modernization** 21,938 220 429

Oth Proc, Army

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429

220

21,938

(Dollars in Thousands)

	(20	iidis iii Tiiousui	ius)
	FY 1999	FY 2000	FY 2001
Current Services	1,292	1,322	1,351
O&M, Army	1,219	1,245	1,272
Mil Pers, Army	73	77	79
DEPLOYABLE/TACTICAL/SHIPBOARD COMPUTING	20,394	18,310	19,320
Non-Major	20,394	18,310	19,320
STAMIS TACTICAL COMPUTERS	14,810	13,462	14,333
Development Modernization	5,474	4,913	7,535
O&M, Army	4,434	3,813	0
Oth Proc, Army	680	708	3,651
RDT&E, Army	0	0	3,482
Mil Pers, Army	360	392	402
Current Services	9,336	8,549	6,798
O&M, Army	7,583	4,678	1,728
O&M, Army Res	0	2,152	1,916
O&M, Army NG	1,753	1,719	3,154
TACTICAL EQUIPMENT OPERATIONS	5,584	4,848	4,987
Current Services	5,584	4,848	4,987
O&M, Army	3,514	2,650	2,745
Mil Pers, Army	2,070	2,198	2,242
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(Dollars in Thousands)

	(Dollars in Thousands)		
	FY 1999	FY 2000	FY 2001
SUPER COMPUTING	6,102	13,178	7,322
Non-Major	6,102	13,178	7,322
SUPER COMPUTER	6,102	13,178	7,322
Development Modernization	370	400	431
Oth Proc, Army	370	400	431
Current Services	5,732	12,778	6,891
O&M, Army	5,732	12,778	0
RDT&E, Army	0	0	6,891
OTHER APPLICATIONS PROCESSING	181,211	169,728	221,246
Major	38,161	17,177	65,412
PENTAGON RENOVATION	38,161	17,177	65,412
Development Modernization	38,161	17,177	65,412
Oth Proc, Army	38,161	17,177	65,412
Non-Major	29,406	46,504	48,181
ADP SERVICES FROM DISA	29,406	46,504	48,181
Current Services	29,406	46,504	48,181
O&M, Army	19,195	36,122	37,567
DWCF Operations	10,211	10,382	10,614

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(Dollars in Thousands)

	FY 1999	FY 2000	FY 2001
All Other	113,644	106,047	107,653
ALL OTHER (CCI) COMP. INFRASTRUCTURE	113,644	106,047	107,653
(REF. B3D)			
Development Modernization	664	617	692
Oth Proc, Army	664	617	692
Current Services	112,980	105,430	106,961
O&M, Army	54,583	46,071	45,473
O&M, Army Res	464	469	439
O&M, Army NG	27,244	28,155	28,201
RDT&E, Army	1,675	1,698	1,713
Mil Pers, Army	1,590	681	699
DWCF Operations	27,424	28,356	30,436

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(Dollars in Thousands)

	(Donars in Thousands)				
	FY 1999	FY 2000	FY 2001		
OFFICE AUTOMATION ACTIVITIES	50,898	41,038	38,978		
Non-Major	50,898	41,038	38,978		
LIFECYCLE REPLACEMENT	50,898	41,038	38,978		
Current Services	50,898	41,038	38,978		
O&M, Army	26,813	20,651	19,791		
O&M, Army Res	1,992	3,963	3,901		
FH Ops, Army	35	0	0		
Missile Procurement, Army	50	351	0		
Oth Proc, Army	6,582	10,360	8,498		
RDT&E, Army	10,988	369	371		
DWCF Capital	856	1,976	3,324		
DWCF Operations	3,582	3,368	3,093		
ALL OTHER OFFICE AUTOMATION ACTIVITIES	183,398	172,902	163,490		
Non-Major	183,398	172,902	163,490		
OFFICE AUTOMATION (NON-SPECIFIC)	164,828	146,932	140,427		
Current Services	164,828	146,932	140,427		
O&M, Army	142,779	125,301	124,806		
O&M, Army Res	13,072	9,940	4,581		
O&M, Army NG	0	3,796	3,476		
FH Ops, Army	36	41	32		
RDT&E, Army	4,303	4,123	4,115		
DWCF Operations	4,638	3,731	3,417		

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(Dollars	in	Thousands)	١

	(Do	nds)	
	FY 1999	FY 2000	FY 2001
OFFICE AUTOMATION HARDWARE & SOFTWARE	18,570	25,970	23,063
<u>UPGRADES</u>			
Development Modernization	18,570	25,970	23,063
O&M, Army	7,675	7,787	7,618
O&M, Army Res	215	133	75
Missile Procurement, Army	162	202	70
Oth Proc, Army	8,713	15,513	13,970
RDT&E, Army	1,805	1,370	1,330
DWCF Capital	0	965	0
OTHER IA PURCHASE & INTEGRATION	113,317	143,362	151,867
Major	113,317	143,362	151,867
INFORMATION SYSTEM SECURITY PROGRAM	113,317	134,477	106,846
Current Services	113,317	134,477	106,846
O&M, Army	49,025	44,686	51,972
O&M, Army Res	772	1,555	1,664
O&M, Army NG	886	877	828
Oth Proc, Army	44,663	68,992	41,409
RDT&E, Army	14,650	15,247	8,140
Mil Pers, Army	3,321	3,120	2,833

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(Dollars in Thousands)

	FY 1999	FY 2000	FY 2001
PUBLIC KEY INFRASTRUCTURE	0	8,885	45,021
Development Modernization	0	0	24,821
Oth Proc, Army	0	0	24,821
Current Services	0	8,885	20,200
O&M, Army	0	8,885	20,200

(Dollars in Thousands)

(Donars in 1)			
FY 1999	FY 2000	FY 2001	
46,205	41,948	45,718	
7,223	5,833	7,356	
7,223	5,833	7,356	
7,223	5,833	7,356	
7,223	5,833	7,356	
7,223	5,833	7,356	
38,982	36,115	38,362	
38,982	36,115	38,362	
38,982	36,115	38,362	
18,897	21,546	21,164	
1,863	2,577	2,576	
17,034	18,969	18,588	
20,085	14,569	17,198	
20,085	14,569	17,198	
	FY 1999 46,205 7,223 7,223 7,223 7,223 7,223 38,982 38,982 38,982 18,897 1,863 17,034 20,085	46,205 41,948 7,223 5,833 7,223 5,833 7,223 5,833 7,223 5,833 7,223 5,833 38,982 36,115 38,982 36,115 38,982 36,115 18,897 21,546 1,863 2,577 17,034 18,969 20,085 14,569	

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DEPARTMENT OF DEFENSE

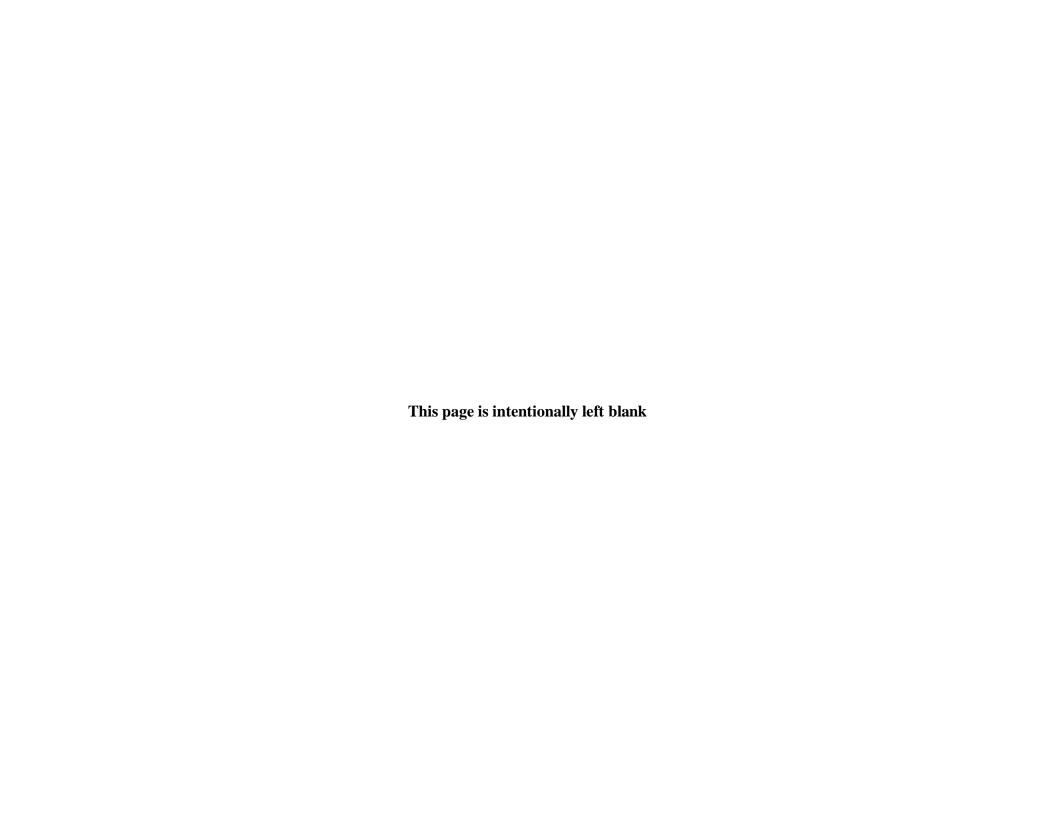
Department of the Army

Information Technology Resources Totals by Appropriation

FY 2001 Budget Estimates

(Dollars in Thousands)

	(1		·)
Appropriation	FY 1999	FY 2000	FY 2001
Total	3,679,262	3,889,963	3,951,541
O&M, Army	1,419,361	1,422,061	1,290,229
O&M, Army Res	96,786	113,152	109,838
O&M, Army NG	182,301	184,091	177,254
FH Ops, Army	3,556	3,198	3,176
Acft Proc, Army	9,013	13,267	45
Missile Procurement, Army	3,525	4,292	3,324
Oth Proc, Army	1,164,070	1,194,007	1,259,012
Proc, W&TCV, Army	45,134	63,672	5,704
RDT&E, Army	485,951	605,419	841,608
Mil Con, Army	7,600	0	0
Mil Pers, Army	95,589	102,477	82,352
Res Pers, Army	2,821	3,196	3,282
DWCF Capital	62,831	82,723	75,658
DWCF Operations	100,724	98,408	100,059



Description Information:

Initiative Name and Acronym: <u>The Army Distance Learning Program (TADLP)</u> Initiative Number: 0688
Project Activity/Mission Area: Communications and Computing Infrastructure/Distance Learning Systems
Date Project was initiated: 17 April 1991 as TRADOC Distributed Training Program (TDTP), re-authorized as Total Army Distance
Learning Program, 28 April 1997 (renamed The Army Distance Learning Program - December 1999).
Date of Last Acquisition Decision Memorandum (ADM): 8 Mar 1999
Project is in Milestone II, Approval Dated: 8 Mar 1999, Engineering and Manufacturing Development (EMD) as of current review.
Project Status: New Ongoing 🖂
Information Technology Project: Yes No
Is this project a financial management system? Yes \sum No \times
If yes, what percentage is financial%
Current Year 2000 Phase: Completed
Year 2000 System Status as of January 4, 2000 (non-compliant, compliant, funding available): compliant
Date for Completion: 3/29/1999 (completed)
Mission Critical Status: Yes
Standard System Status: Yes
Organizational Information/Program Manager: Kevin Dwyer, PEO STAMIS, (703) 806-3614, FAX (703) 806-4289, PM TADLP is
Gary Winkler (757) 728-5553, FAX (757) 728-5509, PEO STAMIS, ATTN: SFAE-PS-DL, Bldg 161, Rm. 114, Ft. Monroe, VA 23651

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: The Army Distance Learning Program (TADLP)

Project Activity/Mission Area: Communications and Computing Infrastructure/Distance Learning Systems

	Dollars in Millions						
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total
Planning							
Total Dev Mod							
Full Acquisition							
<u>OPA</u>	14.5	24.5	15.3	25.0	25.1	64.8	169.2
<u>OMA</u>	10.9	12.6	16.1	0.0	0.0	0.0	39.6
<u>RDTE</u>	0.0	0.0	0.0	4.9	4.3	14.7	23.9
Total Dev Mod	25.4	37.1	31.4	29.9	29.4	79.5	232.7
Current Services/Maintenance							
<u>OMA</u>	0.0	10.5	14.1	20.3	26.1	99.0	170.0
Total Current Service	0.0	10.5	14.1	20.3	26.1	99.0	170.0
Total Resources by FY	25.4	47.6	45.5	50.2	55.5	178.5	402.7

Part II. Justification:

Provide Requested Justification Materials

A. Description/Performance Characteristics:

TADLP will provide standard automation and supporting infrastructure to improve Army's ability to train service members and supporting civilian workforce in all Army components (Active, Guard, and Reserve). It is a critical component of Army Training Modernization, Army's objective training strategy. It will aid the Army to properly train all components to a single Army standard. TADLP supports readiness by enhancing institutional and individual training. Office of the Secretary of Defense (OSD) delegated Major Automated Information System Review Council review of TADLP to the Army in 2nd Quarter FY 1998. TADLP provides both near term and long term instruments to enhance training of all Army components, particularly in the areas of military occupational skill qualification (MOSQ) and reclassification. It also provides a highly effective means to deliver training and education to deployed forces. TADLP will leverage technology and learning theory to provide anytime training to each service member regardless of location. Potential TADLP tools include Computer Based Training (CBT), via Compact Disk-Read Only Memory (CD-ROM), Internet or Web based, prepackaged commercial software, custom software, artificial intelligence, and other forms of computer based instruction, Video Tele-Training (VTT), and other technologies as well as remote instructors, peer instruction/support, and on-line subject matter experts (SMEs). Future technologies such as simulation will be evaluated for cost effectiveness and maturity and will be incorporated into TADLP when appropriate.

TADLP will introduce proven distance learning (DL) enhancements validated by industry and academia into the Army training inventory. TADLP goals include:

- Reduced training delivery and training support costs. It will also reduce travel costs and other costs incurred when a service member must leave his existing station to obtain required training.
 - Improved service member morale by allowing members to obtain required training without leaving their home station.

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- Improved efficiency and effectiveness of Army instructors by allowing each instructor to train more students in a shorter period of time.
 - Improved unit readiness due to the reduction in personnel turbulence resulting from long term absence for resident training.
- TADLP acquisition strategy will emphasize extensive teaming between Army training experts and DL experts from industry and academia to design, develop, and implement a comprehensive and cost effective TADLP. TADLP acquisition will be accomplished through a multi-phase or block approach.

Initial efforts in FY 1998 and FY 1999 concentrated on deployment of modern Digital Training Facilities (DTF) incorporating automation and VTT products to all Army components. These facilities are designed to primarily support Army (TRADOC) updates to existing courses that emphasize synchronous (direct and immediate) instructor/student interaction using VTT. They also include student workstations equipped with modern Personal Computers (PC). These PCs can be used for CD-ROM based asynchronous training where available. This provides an immediate return on investment by allowing Army instructors to offer simultaneous training to both contiguous and remote students, increasing the class size that can be effectively supported by a single instructor. In addition, integrated teams of Army, academic, and industry personnel evaluated commercial and academic training methods for applicability to Army skills training. Evaluation included expanded asynchronous training methods using techniques such as CD-ROM or other computer based training or linking students, instructors, and SMEs through the Internet and/or other communications media to conduct collaborative training. These efforts are being used to help develop a comprehensive architecture on which to base future TADLP development.

In FY 2000 and FY 2001, Army is beginning full-scale implementation of technology enablers and asynchronous training methods evaluated in FY 1998 and FY 1999 for a major subset of existing Army courses. This will allow development of an initial suite of asynchronous training tools to augment and enhance existing Army training instruments. Efforts will support redesigned courses and training instruments that can leverage technological advances and the application of modern learning theory. This will maximize the utility of this training to each student while reducing the time required by the student to complete assigned blocks of training. Efforts

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will continue to deploy modern, user friendly learning environments to support all service members. Where applicable, facilities deployed in FY 1998 and FY 1999 will be upgraded to support the full range of learning instruments. Full implementation of this DL effort will be completed in FY 2002.

In FY 2003, the most ambitious TADLP effort will commence. Building on successes anticipated for the initial suite of modern tools, Army will redesign its training environment to support a cost-effective mix of synchronous and asynchronous learning tools incorporating lessons learned from industry and academia. Potential enhancements include incorporation of artificial intelligence and other techniques to support virtually instantaneous tailoring and customization of courses to facilitate individual learning styles and implementation of simulation and other automation intensive capabilities made affordable by technological advances.

TADLP will help Army meet the DoD mission need to provide a flexible, ready, and sustainable military force structure capable of conducting joint operations to execute the national military strategy. It will do this by establishing a comprehensive worldwide network of DTFs and training support facilities to provide mission critical training to all Army components. The system will facilitate mobilization training by allowing for just in time training for deploying military personnel. It will also improve overall military skill levels of Army personnel by making training more economical and improving training access. The system is being designed to comply with emerging Joint Technical Architecture (JTA) and Defense Information Infrastructure Common Operating Environment (DII COE) standards. The use of these standards also helps assure that TADLP system architecture is flexible and capable of accommodating additional system requirements, technological improvements, and new functionality.

TADLP is based on a TRADOC effort, the TRADOC Distributed Training Program (TDTP) that was initiated in 1989. TDTP began with numerous discussions with industry leaders such as IBM, Bell Laboratories, and General Motors as well as top leaders in academia including Carnegie Mellon University, University of Pennsylvania, and Virginia Polytechnic Institute. TDTP evolved into a five-year test pilot program in which both controlled and field experiments were conducted to determine the validity of a variety of DL media. These efforts resulted in a solid foundation of theoretical and practical applications upon which to base TADLP acquisition. Pre-Milestone I/II planning activities began with establishment of the Program Management Office (PMO) at Fort Monroe, Virginia in May 1997. The PMO, the Acquisition Executive Agent (Program Executive Officer, Standard Army Management Information Systems (PEO STAMIS)), the functional proponent (HQDA DCSOPS), and the Combat Developer

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(TRADOC) jointly developed an Operational Requirements Document (ORD), Mission Needs Statement (MNS) and Critical Operational Issues and Criteria (COICs). It was during this period that the block approach for implementing TADLP was conceptualized and outlined. The technical architecture (TA) engineering process was then implemented and Integrated Product Teams (IPTs) were established to develop the Test and Evaluation Master Plan (TEMP) and Economic Analysis (EA).

TADLP infrastructure acquisition efforts are based on the comprehensive Army Distance Learning Plan and are a major component of Army Training Modernization. TADLP supports the Army training community's efforts to redesign existing military training courses, incorporating DL techniques and capabilities. In February 1999, PM TADLP completed an EA for an Army Overarching Integrated Project Team (OIPT) Milestone I/II Review for Block 1 and 2. The EA estimates that full implementation of the proposed system will generate a Benefit/Investment Ration (BIR) of 4.3:1 and provide valuable intangible benefits. Based on this EA, the OIPT authorized deployment of 75 additional Block 1 DTFs and establishment of up to 30 Block 2 DTFs at 10 sites. Design and testing of TADLP Block 2 will be completed in 3rd Quarter FY 2000 and the Army OIPT will conduct a Milestone III Review of TADLP Blocks 1 and 2. The TADLP EA is being updated to support the Milestone III review.

Resources shown for TADLP also include TRADOC managed OPA resources for Other Training Modernization (SSN BE4172) efforts. Supported programs include Classroom XXI (CR XXI), the Army Doctrine and Training Digital Library (ADTDL), the Automated Instructional Management System - Redesign (AIMS-R), and the Army Systems Approach to Training (ASAT). Army is currently reviewing the relationship of these acquisitions to TADLP to determine if in future submissions, these efforts should continue to be incorporated in the TADLP 300b submission or reported separately.

B. Program Management/Management Oversight:

TADLP process owner is the Army training community represented by HQDA DCSOPS as TADLP functional proponent and U.S. Army TRADOC as TADLP Combat Developer and Army Executive Agent (AEA). The acquisition executive agent is PEO STAMIS. TADLP project manager is assigned to PEO STAMIS who reports directly to the Army Acquisition Executive (AAE). The current Contracting Office for TADLP Block 1 and 2 acquisition is the General Services Administration (GSA), Region 10, Bremerton, Washington.

TADLP uses an Integrated Project Teams (IPT) approach. The Army Overarching IPT (OIPT) conducted an In-Process Review (IPR) of TADLP in February 1998. Based on this IPR, PM TADLP was authorized to implement a 74-DTF TADLP Test Bed and to initiate design and evaluation efforts for the limited capability TADLP Block 1 effort. TADLP will be implemented in multiple phases or blocks. Block 1 consists of limited capability DL DTFs composed of commercial off-the-shelf (COTS) infrastructure (hardware and software) and leased VTT services. Block 2 builds on Block 1 capabilities and provides enhanced telecommunications capabilities to allow use of internet/intranet based training and will be integrated with/interface with existing Army training development and personnel training and management systems. High capacity, digital data links will connect TADLP DTFs and Army training centers and supporting training systems and resources. Where necessary, Blocks 2 capabilities will be enhanced in future blocks with technology insertion/upgrades as part of sustainment of deployed capabilities. The Army OIPT conducted a Milestone I/II Review of TADLP Block 1 and 2 in February 1999. As a result of this review, the OIPT authorized full-scale design and development of TADLP Blocks 1 and 2. It also authorized deployment of 75 additional Block 1 DTFs and incorporation of Block 2 capabilities at up to 30 Block 1 DTFs at ten sites. Block 1 provides a limited interim capability. Block 2 will upgrade the Block 1 capability to a more robust networked DTF architecture. In addition to the OIPT, PM TADLP has established Working IPTs for Testing, Cost Analysis and Evaluation, Functional Requirements/Architecture, and Communications.

The primary system cost drivers requiring intensive management are those associated with infrastructure design and deployment, management, and support of the deployed TADLP capability, and data transport. For TADLP Block 1, PM TADLP controlled these costs through aggressive use of appropriate IPTs to evaluate and select affordable solutions. The PM has since developed a formal performance monitoring system based on standard product management practices and Earned Value that is now used for TADLP Blocks 1 and 2.

C. Contract Information:

Major contract names; prime contractor. ACS Systems & Engineering, Inc. is providing integration and fielding services to support establishment of TADLP Block 1 DTFs. Commercial off the Shelf (COTS) Block 1 DTF components (computers, desks, DTF furnishings, etc.) are acquired from various vendors using existing IDIQ contracts and/or GSA schedule. The Army's Information

Systems and Engineering Command (ISEC) is assisting PM TADLP to manage the integration and fielding of Block 1 DTF components.

PM TADLP requested competitive bids for Block 2 design/prototype development in FY 1999. Five vendor teams submitted bids for this effort. ACS Systems & Engineering, Inc. was also selected for this effort based on government analysis that theirs was the responsive bid that provided "Best Value" for the work requested. Although the contract awarded to ACS allows the government to exercise options to have ACS perform future Block 2 tasks, the government may, at its discretion, assign these tasks to other vendors based on "Best Value" considerations. Army's Information Systems Engineering Command (ISEC) is assisting PM TADLP with management of Block 2 tasks performed by ACS and/or other commercial vendors.

D. Architecture and Infrastructure Standards:

OSD has issued a directive that all-new Command, Control, Communications, Computers, and Intelligence (C4I) systems and other systems that interface to C4I systems shall be in compliance with the JTA. The JTA in turn mandates use of the DII COE. Reference is specifically made to C4ISR Architecture Framework, Certified Information System Auditor (CISA)-0000-104-96, Version 1.0, 7 June 1996, C4I Surveillance and Reconnaissance (C4ISR) Integration Task Force (ITF) Integrated Architectures Panel. This document presents an innovative definition of levels of interoperability. The DII COE adopts these levels of interoperability and maps DII compliance to interoperability levels. The COE defines eight progressively deeper levels of integration for the Runtime Environment Category. These levels are directly tied to the degree of interoperability achieved. True integration begins at Level 4. TADLP is being designed to achieve Level 8 integration as platform-specific tools and test environments are put in place by the Defense Information Systems Agency (DISA).

Infrastructure Strategy:

- a. All TADLP hardware requirements are included in the funding.
- b. Transport: A combination of methods will be used to satisfy transport requirements. Intra-installation (on a post, base, or camp) transport requirements will be supported by a combination of dedicated system transport assets and existing installation level circuits. Inter-installation (between posts, bases, or camps) transport requirements will be supported by a combination of

leased circuits from commercial vendors and existing DoD/Military Service long haul communications assets (DISN). Dedicated assets and leased circuits will only be used when existing installation circuits and long haul communications assets cannot provide data transport levels required to properly support TADLP data transport requirements.

- c. TADLP DTFs will be located on active Army installations, and at U.S. Army Reserve (USAR) sites. TADLP will be responsible for DTF infrastructure and necessary automation/communications infrastructure installation/enhancements for USAR and OCONUS Army structures containing these DTFs. It will also provide for the necessary long haul communication capability required for data transport between DTFs (through leased lines or reimbursement to DISA and other Army/DoD/Government telecommunications providers). However, it will be dependent on existing and future base level telecommunications capabilities for data transfer between the DTF and long haul circuits.
 - d. TADLP Blocks 1 and 2 consist entirely of Commercial Off the Shelf (COTS) components.
- E. Program Highlights: TADLP has achieved a number of significant milestones during the past year.
- 1. To date, PM TADLP has acquired and deployed more than 105 DTFs incorporating TADLP Block 1 capabilities. These DTFs are fully operational and are being used to transmit training from live Army instructors to remote students via VTT and to provide training to Army users via CD-ROM based courseware. By the end of FY 1999, PM TADLP had acquired infrastructure to support deployment of 128 Block 1 DTFs and acquired the infrastructure to upgrade 30 of these DTFs to incorporate Block 2 capabilities.
- 2. The Army OIPT conducted a Milestone II/III review of TADLP Blocks 1 and 2 in February 1999. As a result of this review, MS III approval was granted for Block 1 and MS II approval was granted for Block 2 through 6. PM TADLP was authorized to begin full-scale design and development efforts for TADLP Blocks 1 and 2. PM TADLP was also authorized to acquire and deploy up to 75 additional DTFs with TADLP Block 1 capabilities and to establish up to 30 DTFs with both Block 1 and Block 2 capabilities at 10 sites.

- 3. PM TADLP has begun efforts to implement expanded TADLP Block 2 capabilities to support Army training requirements. A Source Selection Evaluation Board (SSEB) was conducted in March and April 1999. Based on the results of the SSEB, ACS Systems & Engineering, Inc. was selected to design and develop the Block 2 TADLP capability.
- 4. The Army training community has been closely tracking distance learning (DL) related efforts of both TADLP and the Army National Guard's Distributed Training Technology Project (DTTP). An initial outcome of this review has been establishment of a consolidated Department of the Army DL 1-N List that as of July 30, 1999, contained 841 prioritized DTFs. The 1-N List synchronizes TADLP and DTTP efforts to preclude DTF overlap. By leveraging synergies between TADLP and DTTP, Army is able to maximize the geographical coverage of DTFs deployed through the two acquisition efforts.

F. Financial Basis for Selecting the Project:

Although Army's Cost and Economic Analysis Center (CEAC) validated the initial TADLP Economic Analysis (EA) for Milestone (MS) I/II, Army plans to delay establishment of a formal TADLP Acquisition Program Baseline (APB) until completion of the more detailed MS III EA for TADLP Blocks 1 and 2. This EA will be presented to the Army OIPT in 3rd Quarter FY 2000.

	Dollars in Millions									
	Sunk Costs	FY00	Y00 FY01 FY02 FY03 FY				Total			
APB Total Resources by FY	71.0	47.8	50.7	56.1	51.8	129.4	406.8			
Rebaseline Total Resources by FY	71.7	44.2	50.2	55.5	51.2	127.3	400.1			

TADLP MS I/II EA was completed in February 1999. However, Army has deferred establishment of a formal TADLP APB until completion of TADLP EA for the Block 1/2 MS III Review. APB Total Resources by FY line reflects PEO STAMIS managed TADLP resources from FY1997-FY2005 plus TRADOC managed OPA resources from FY1999-FY2005 in the FY01 BES. Rebaseline Total Resources by FY line reflects PEO STAMIS managed TADLP resources from FY1997-FY2005 plus TRADOC

managed OPA resources for Other Training Modernization (SSN BE4172) from FY1999-FY2005 in the FY01 President's Budget. Army is currently reviewing the relationship of resources in SSN BE4172 to TADLP to determine if in future submissions, these resources should continue to be incorporated in the TADLP 300b submission or be reported separately.

- 1. Cost/benefit analysis: The MS I/II EA indicates a system BIR of 4.3:1. This BIR consists of replaced process savings, cost avoidance, and productivity enhancements. TADLP is also expected to increase Army mission capability in terms of higher readiness rates due to more fully trained soldiers.
- 2. Analysis of alternative options: Two alternatives, leasing and purchase of hardware, were considered. Both alternatives were addressed in the Economic Analysis. Based on relative cost data in the EA, the preferred alternative is hardware purchase.
- 3. Underlying assumptions: TADLP will operate under the following assumptions:
- a) Total life-cycle costs were calculated from FY 1995-FY 2013. This included sunk costs and costs for the operational life of the system. Any costs prior to October 1999 are considered sunk. Sunk costs are shown but not considered in the decision process.
- b) Funds will be available without delay for the continuation of development, production, fielding, and implementation of TADLP.
- 4. Estimate of Risks: Risks are managed through a program of risk mitigation. PM TADLP chairs a Risk Management Board. All risks, resolved and unresolved, are reviewed and documented in a Risk database. The Risk Management Board analyzes and determines a strategy to mitigate each risk.

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

Baseline Information:

TADLP began formal acquisition efforts in FY 1998. However, limited preparation and set up efforts were performed in FY 1997. \$0.8 million OMA was spent on TADLP in FY 1997. Army will establish a formal TADLP Acquisition Program Baseline (APB) upon completion of the EA for the Army OIPT MS III Review for TADLP Blocks 1 and 2. This review will be conducted in 3rd Quarter FY 2000.

	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total		
B. Previous Balance:									
Cost Goals (\$M)	25.4	41.1	39.3	68.4	65.1	212.9	452.2		
Schedule Goals (milestones)									
C. Baseline:									
Cost Goals (\$M)	25.4	45.6	47.8	50.7	56.1	181.2	406.8		
Schedule Goals (months)									
D. Current Estimate:									
Cost Goals (\$M)	25.4	46.3	44.2	50.2	55.5	178.5	400.1		
Schedule Goals (months)									
E. Variance from Baseline Goals:									
Cost Goals (\$M)	0	0.7	-3.6	-0.5	-0.6	-2.7	-6.7		
Schedule Goals (months)									

Rebasedlined since initial program establishment. Previous Balance data reflects PEO STAMIS managed TADLP resources from FY1997-FY2005 as shown in the FY00 President's Budget 300b. Baseline reflects PEO STAMIS managed TADLP resources from FY1997-FY2005 plus TRADOC managed OPA resources for Other Training Modernization (SSN BE4172) from FY1999-FY2005 in the FY2001 BES. Current Estimate reflects PEO STAMIS managed TADLP resources from FY1997-FY2005 plus TRADOC managed OPA resources for Other Training Modernization (SSN BE4172) from FY1999-FY2005 in the FY2001 President's Budget. Army is currently reviewing the relationship of resources in SSN BE4172 to TADLP to determine if in future submissions, these resources should continue to be incorporated in the TADLP 300b submission or be reported separately.

- Slippages since the FY2000 President's Budget. The Milestone III for Block 1 has been delayed and combined with the MS III for Block 2 to reduce program risks by deferring full fielding approval until availability of detail costing data for Block 2. However, this will have no impact on the overall TADLP schedule since Army granted interim fielding authority for additional Block 1 DTFs based on Army OIPT MS I/II Review in February 1999.
- Cost Goals of current approved milestone/phase: Not applicable, Cost Baseline still being established.

 Variance from FY2000 President's Budget: During the FY 2001-FY 2005 mini-POM, Army evaluated ongoing TADLP efforts and those of the Distributive Training Technology Project (DTTP), a complementary Army National Guard (ARNG) demonstration project. Based on this evaluation, Army has determined that functional requirements to be supported by 745 TADLP DTFs and 591 DTTP DTFs could be adequately supported by an 841 DTF combined TADLP/DTTP baseline. As a result of this decision, Army reallocated FY 2001-FY 2005 funds from TADLP to help support out-year ARNG DTTP requirements. Variance also reflects TRADOC resources in SSN BE4172 now being reported in the TADLP 300b. Army is currently reviewing the relationship of resources in SSN BE4172 to TADLP to determine if in future submissions, these resources should continue to be incorporated in the TADLP 300b submission or be reported separately.

TADLP Cost Baseline will be established based on the results of the EA now being prepared for TADLP Block 1 and 2 Milestone III review by the Army OIPT. This baseline will reflect changes in TADLP size and scope resulting from the Army decision in the FY 2001-FY 2005 mini-POM to establish an 841 DTF combined TADLP/DTTP DTF baseline. TADLP resource changes in FY 2001-FY 2005 are due to the Army mini-POM decision to establish the combined baseline.

• Year 2000 implementation has not impacted cost and schedule goals.

F. Corrective Actions:

Schedule Goals: Milestones

Baseline (Milestone) Schedule	Last President's Bu	idget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Army MAISRC IPR	2 nd Qtr FY98	2 nd Qtr FY98	
Army Milestone III (Block 1)	2 nd Qtr FY99		3 rd Qtr FY00
Army Milestone I/II (Block 2)	2 nd Qtr FY99	2 nd Qtr FY99	
Army Milestone III (Block 2)	2 nd Qtr FY00		3 rd Qtr FY00

- TADLP Block 1 MS III has been deferred/combined with MS III for Block 2. In February 1999, an interim fielding approval for an additional 75 Block 1 DTFs was granted by the Army OIPT at TADLP MS I/II Review. As a result, the MS III modification did not impact TADLP program schedule.
- Variance from schedule from FY2000 President's Budget: The Milestone III for Block 1 originally scheduled for 2nd Quarter FY 1999 has been delayed and combined with the already planned Milestone III for Block 2. The combined Milestone III has been slipped to 3rd Quarter FY 2000 to accommodate increased workload required to support the combined Milestone III review. However, the Army OIPT granted interim approval to deploy an additional 75 Block 1 DTFs and to establish up to 30 Block 2 DTFs at ten sites based on the Army OIPT Milestone I/II for TADLP in February 1999. As a result, there will be no impact to the schedule of TADLP DTF deployment.
- Corrective Actions: The Army OIPT granted limited deployment authority for TADLP Block 1 at the Milestone I/II review in February 1999. This will allow all required engineering, acquisition and deployment actions to be accomplished within established schedules despite the delays in formal Milestone III review.

Performance Goals:

TADLP Block 1 will implement TRADOC identified training infrastructure requirements and solutions in existing Army DTF facilities. Block 1 will optimize those facilities for distance learning (DL) with a standard design. There is no additional system development required for Block 1 implementation; therefore, the PM plans to establish the Block 1 sites using a services contract to conduct site surveys, rehabilitate the DTFs, and activate the DTFs for test and acceptance by the PMO. Student workstation equipment and software, primarily COTS, will be acquired through GSA schedule or existing government contracts. VTT equipment and associated connectivity/system management will be obtained through the newly established SPRINT TNET contract. The SPRINT TRADOC Training Network (TNET) contract provides the current VTT capability to TRADOC DTF facilities and will be used as the Block 1 solution to maintain compatibility with TRADOC VTT systems and avoid the additional contracting and management costs of introducing an alternative approach. The service contract(s) will be awarded through the use of existing sources (e.g. Omnibus Contracts and/or qualified GSA Government-Wide Contracts).

TADLP Block 1 and 2 is using ACS as a Primary Contractor to implement DL capability requirements. TADLP will use COTS software to run the network operating system, communication protocols, databases, and course administration.

The Block 2 system will be upgraded as necessary during TADLP life cycle. The level of enhancement required after Block 2 implementation will be based on functional user requirements for cost effective enhancements of TADLP capabilities. PM TADLP is working with the training community to determine the best approach to acquire enhancements after Block 2.

TADLP will provide required training infrastructure to support modernization of Army training methods. This will reduce training costs and improve training quality/unit readiness. By allowing training of Army personnel at remote sites, it will also reduce travel and housing costs incurred to provide training. By allowing more efficient use of training resources, TADLP will also allow Army to increase the amount of training provided each service member within a given level of resources, increasing overall readiness.

Goal accomplishments: The PMO, established in May 1997, is now staffed at near full strength. OSD delegated Milestone Decision Authority (MDA) to the Army in February 1998. A successful OIPT Review in February 1999 led to Army approval to establish a DL Test Bed that is not to exceed 75 DL DTFs. The full 75 DTF Test Bed has been deployed.

Block 1. This TADLP effort provides initial operating capability (IOC) TADLP DTFs at selected Army facilities. This infrastructure will support the delivery of primarily synchronous (real time) VTT based courses using live instructors and limited asynchronous Computer Based Training (CBT) delivered primarily via CD-ROM to remote sites. 138 Block 1 DTFs had been acquired by the end of FY1999.

Block 2. This effort will move the Army towards more advanced DL capabilities. Block 2 will build on Block 1 efforts to provide a more robust infrastructure to support delivery of both synchronous and asynchronous (non-real time) training from Army schools to remote students. Block 2 will support efforts to redesign Army training environments to optimize learning and information retention. The Block 2 focus will be on establishing an objective distance learning capability which includes course management, student registration and administration, and performance testing and feedback. Infrastructure to upgrade 30 Block 1 DTFs to Block 2 capabilities had been acquired by the end of FY1999.

Follow On TADLP Enhancements. Capabilities established in Blocks 1 and 2 will be enhanced to provide more ambitious, enriching, and realistic learning experiences when economically feasible. Potential future capabilities include realistic battle simulations making use of technological advances in areas such as artificial intelligence, virtual reality, and other advanced concepts. Current plans are to accomplish these efforts as enhancements to Block 2.

Upon implementation of TADLP Block 2, the system will provide:

(1) Capabilities:

- (a) Army installations and The Army School System (TASS) training battalions within Continental United States (CONUS) will have the capability to provide students course materials via distance-learning (DL) media and accomplish course requirements using training technologies.
- (b) Individual TADLP DTFs will accommodate 16 students at Active Army installations and 12 students at Reserve Component (RC) locations and mobile TADLP sites.
- (c) Instructors and students will have capabilities to hear, see, and communicate with each other at separate locations during the delivery of instructor-led, synchronous, DL training.
 - (d) Students will have the capability to work independently on DL course materials delivered for self-study.
 - (e) Students will have access to training materials required for self-paced, non-instructor led, asynchronous training.
- (f) Students enrolled in asynchronous courses will have the capability to communicate with SMEs at the proponent schools through electronic means.
- (g) Audio/video communications supporting synchronous data transmission will transmit visual course presentations that are legible and readable by students with normal vision seated at any designated student position at DL DTFs, and are audible to students with normal hearing.

(2) System Performance:

(a) TADLP modernized training system will be capable of being accessed at least 14 hours per day, 7 days a week with a 92% system availability rate for both synchronous and asynchronous training. The 92% availability rate is a threshold value.

- (b) The system will be a capable of increasing and sustaining accessibility to 24 hours per day with a 92% system availability rate for synchronous and asynchronous training (wartime surge).
- Accomplishments to date: Efforts to design and establish the 75 DTF TADLP test bed are complete. The Army OIPT performed a Milestone (MS) I/II review of TADLP Blocks 1 and 2 in February 1999. Based on this review, an Acquisition Decision Memorandum (ADM) was issued in March 1999 authorizing full design/development of TADLP Blocks 1 and 2. PM TADLP was also authorized to deploy an additional 75 Block 1 DTFs and incorporate Block 2 capabilities at up to 30 Block 1 DTFs at 10 sites. Infrastructure for 54 additional Block 1 DTFs had been acquired by the end of FY 1999. Infrastructure to upgrade 30 Block 1 DTFs to full Block 2 capabilities had also been acquired by the end of FY 1999. PM TADLP is updating and more fully defining TADLP costs and benefits from the Economic Analysis (EA) submitted for the Army OIPT MS II/III review to support a Block 1/2 MS III review in 3rd Quarter FY 2000.
- Variance from performance from FY2000 President's Budget: The MS III for Block 1 has been deferred and combined with the Block 2 Milestone III. However, the Army OIPT granted interim deployment authority for 75 additional Block 1 DTFs at the Milestone I/II review conducted in February 1999. As a result, the delay in the Block 1 Milestone III review will not impact any specific program efforts nor will it affect the overall program schedule. Performance goals are on track since last President's Budget/last milestone. There are no known barriers/risks to be accommodated.
- **Corrective actions:** No corrective actions are anticipated to be required. There are currently no known major barriers or risks to meeting schedule goals.

G. Year 2000 Special Information:

Y2K: Completed

	Previous President's Budget	Current Submission
Date of Accomplishment	4/15/99	3/31/99
Funding Estimate by Block		
Estimate time that for full Y2K Compliance	4/15/99	3/31/99

- Funding estimate by block: Not applicable. TADLP has been designed to be Y2K compliant from program inception in FY 97. Technical and engineering tests and analysis have incorporated verification of Y2K compliance as part of normal procedures. As such, there are no direct costs attributable to assurance of Y2K compliance.
- Y2K compliance has been accomplished within project funding. Program support costs related to Y2K have been estimated at \$400,000 and have been reimbursed by DoD.
- Opportunity costs in terms of cost, schedule and performance due to Y2K requirements have been estimated at \$400,000 and have been reimbursed. Y2K compliance has been integrated into TADLP program structure, which minimizes the direct cost of such compliance and directs it primarily to the area of certification, reporting and oversight required by higher authority and accomplished primarily by program support elements.

Description Information:

Initiative Name and Acronym: Army Enterprise Architecture (AEA)
Initiative Number: 2103 (The AEA is not a systems acquisition; therefore it will not follow life cycle acquisition milestones)
Project Activity/Mission Area: Related Technical Activities, Technical Activities
Date Project was initiated: FY 94
Date of Last Acquisition Decision Memorandum (ADM): N/A
Project is in N/A Milestone, Approval Dated: N/A, N/A Phase as of current review.
Project Status: New \(\subseteq \text{Ongoing } \subseteq \)
Information Technology Project: Yes No
Is this project a financial management system? Yes ☐No ☒
If yes, what percentage is financial%
Current Year 2000 Phase: N/A
Year 2000 System Status as of January 20, 1999 (non-compliant, compliant, funding available): N/A
Projected Date for Completion: N/A
Mission Critical Status: N/A
Standard System Status: Yes
Organizational Information/Program Manager: Mr. John H. Shipp, III, Dep Dir of Architecture (703) 695-1671, FAX (703) 697-2177
Architecture Directorate (DISC4), ATTN: SAIS-PAA, Rm 1C670, 107 Army Pentagon, Washington, DC 20310-0107

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Army Enterprise Architecture (AEA)

Project Activity/Mission Area: Related Technical Activities, Technical Activities

		Dollars in Millions							
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total		
Planning									
Full Acquisition									
OPA	1.6	1.9	2.6	2.6	2.8	8.5	20.0		
RDT&E	3.2	17.0	19.0	18.6	18.5	49.8	126.1		
Total Dev Mod	4.8	18.9	21.6	21.2	21.3	58.3	146.1		
Current Services/Maintenance									
OMA	21.1	20.1	14.6	17.2	17.4	52.9	143.3		
Total Current Service	21.1	20.1	14.6	17.2	17.4	52.9	143.3		
Total Resources by FY	25.9	39.0	36.2	38.4	38.7	111.2	289.4		

AEA is not an acquisition system and therefore does not follow life cycle acquisition milestones.

Part II. Justification:

A. Description/Performance Characteristics:

The Army Enterprise Architecture (AEA) is a framework/decision tool used to guide information technology (IT) investments, acquisitions, and fielding of integrated systems-of-systems capabilities. The AEA links multiple systems capabilities to the warfighter's information requirements and budgeted/programmed resources needed to meet these requirements. The AEA establishes a comprehensive design framework for IT systems-of-systems that is traceable to operational needs and to Joint/DoD/Coalition IT requirements.

The AEA is not a systems acquisition. However, the AEA affects the development of all Army systems, including weapon systems, that use, produce, and exchange information electronically. The AEA affects all Army systems by mandating the standards and protocols all systems must use to operate together as a digitized force. The AEA also affects Army systems by identifying the interrelationship and technical parameters of the information requirements Army IT systems are designed to exchange. The AEA supports the modernization of Army Power Projection Platforms by identifying the requirements/funding for the IT infrastructure needed for split-based operations and reachback capabilities. The AEA will eliminate the expense and time drain of human intervention and 'black box' translators needed by systems that do not interoperate with each other. The AEA will identify technical, operational, systems shortfalls/omissions, prevent redundancies among systems and data, as well as reduce cost and time to develop and field comprehensive integrated IT capabilities.

B. Program Management/Management Oversight:

AEA is not an acquisition program and therefore, is not managed by a PM. The DISC4, as the Army CIO is responsible for developing, maintaining and facilitating the implementation of the AEA IAW the 1996 Clinger/Cohen Act, the Army Enterprise Strategy, and the DoD Command, Control, Communications, and Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Framework Document. The Army CIO manages the AEA as a decentralized multi-lateral program by providing oversight, strategy, funding, and policy guidance to the Army's Major Commands and Army agencies that execute the AEA program. The CIO provides this direction and control IAW with memoranda, the AEA Master Plan, AEA Guidance Document, AR 25-1 Information Management

policy and through the Enterprise General Officer Steering Committee oversight and approval. The Enterprise Council of Colonels, Enterprise General Officers Steering Committee (BG level), and the Enterprise Board of Directors (MG/LTG level) provide oversight and approval of the AEA strategy and AEA program/funding requirements. Members of these fora include the Army Staff, Secretariat, Major Commands, and relevant Program Executive Officers (PEO). The Army's Training and Doctrine Command (TRADOC), executes the funds for the operational architecture and the conceptual systems architecture portions of the AEA program. PEO Command, Control, and Communication Systems executes the funds for the detailed (systems engineering) systems architecture portions of the AEA program. The Army Materiel Command (AMC) executes the funds for standards development, interoperability test/certification, repository/tools, and the Installation Information Infrastructure Architecture (I3A) portions of the AEA Program.

C. Contract Information:

The Operation and Maintenance, Army (OMA) appropriation provides funding to HQDA, AMC, and TRADOC to: manage/synchronize the AEA; support Joint Technical Architecture-Army (JTA-A) development/maintenance; and support Army/International C2 Interoperability. OMA also supports the following:

- Defense Information Infrastructure Common Operating Environment (DII COE)
- Implementation of the Army Data Management Program
- Development, maintenance, modeling/simulation for operational and systems architectures (including the I3A) IAW the VCSA's digitization milestones, Army Modernization Plan; the Army Plan/POM Guidance, the Army Digitization Master Schedule, and the AEA Master Plan

Primary contractors are: MITRE, DESE Research, ACS Defense, Teledyne Brown Engineering, CUBIC International, Quantum Research International, and EER Systems)

The Other Procurement, Army (OPA) appropriation provides funding to the field for COTS hardware and software (including life cycle replacement) infrastructure necessary to build and maintain operational/systems architectures, implement Army DII COE strategy and sustain/modernize the Army Operational Data Repository and the C4 Requirements Definition Program database. (OPA

funds are disbursed by ODISC4 during year of execution to field organizations responsible for executing AEA program who use various vendors to purchase COTS HW/SW)

The Research, Development, Test and Evaluation (RDT&E) appropriation provides funds for the maintenance, development of the JTA-A, interoperability testing & certification, engineering analysis for JTA compliance, and system fielding technical support. Ensures advance C2 capabilities are incorporated into Army current and future Army weapons platforms. Primary contractors—are: MITRE, Computer Science Corp, BBN, Battelle, ARINC Inc, Telos Corporation and C3I, Inc.

D. Architecture and Infrastructure Standards:

The AEA is not a system but provides the IT standards by which systems must comply, e.g. JTA-A, DII COE, Core Architecture Data Model, C4 Intelligence Surveillance and Reconnaissance (C4ISR) Framework Document and AEA Guidance Document. The HW/SW procured in support of the AEA is Joint Technical Architecture compliant.

E. Program Highlights:

FY 99 Accomplishments:

- Released AEA Guidance Document Versions 1.0 and 1.1 (consistent with OSD architecture guidance) to expand on policy provided in Army Regulation 25-1 Information Resource Management and to provide the field with detailed procedures regarding development, management, and use of AEA models and products.
- Released AEA Master Plan Program Plan Version 1.0, used to identify AEA FY 01-05 Mini-POM requirements consistent with the Plan/POM Guidance, and Army Digitization Master Plan
- First AEA Development Plan (DP) drafted and instituted (AEADP methodology approved by EGOSC) to synchronize incremental and mutually supporting production of OA and SA the Joint Contingency Force Army Warfighter Experiment is the prototype.
- AEADPs drafted for III Corps, 3rdArmored Calvary Regiment (3 ACR), 82nd Airborne Corps (82nd AB). AEADPs designed to save costs and time in developing Army Modernization architectures.
- Developed SA-Detailed for 1st Digitized Force Systems Architecture (1DFSA)

- Expanded I3A across Army Installations IAW Installation information Infrastructure (I3) Master Plan (provides blueprint for digitizing Army post, camps and stations)
- Continued Modeling and Simulation (M&S) efforts to assess adequacy of Army Systems Architecture (battlefield digitization & installation modernization) to meet operational requirements.
- **F. Financial Basis for Selecting the Project:** AEA will enable non-black box joint interoperability solutions, orderly insertion of evolving IT into force structure, elimination of inappropriate redundant capability, and fielding of integrated system-of-systems capabilities needed to meet current & future operational requirements.

	Dollars in Millions									
	Sunk Costs	unk Costs FY00 FY01 FY02 FY03 FY04-N T								
Total Resources by FY*										
Total Resources by FY	64.9	36.2	38.4	38.7	38.8	72.4	289.4			

• This program does not follow the traditional acquisition process. Rebaseline reflects the changes to the funding line between BES and the President's Budget.

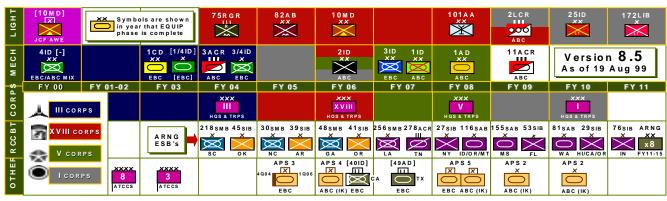
Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s): N/A

Baseline Information: AEA is not a systems acquisition and does not follow acquisition life cycle milestones. The AEA program's top priority as directed by the Enterprise General Officer's Steering Committee (EGOSC) is to develop architectures IAW the Army.

CURRENT ARMY DIGITIZATION MASTER SCHEDULE

Modernization drives AEA Product Schedule



DESCRIPTION

- Depicts when a unit will be digitally equipped, in most cases at the end of a 2-3 year fielding period.
- Mech Axis units will receive tracked combat vehicles with embedded (EBC) or appliqued (ABC) battle command.
- First Digitized Div (FDD) equipped in 00; Objective Digital Div in 03; First Digitized Corps (FDC) by end of 04.
- Four corps and supporting AC/RC structure are digitally equipped by end of FY11.
- All 15 ARNG Enhanced Separate Bdes (eSB's) also equipped by FY11; followed by ARNG Combat Divs FY11-15.

	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total	
B. Previous Balance: *								
Cost Goals (\$M)	25.9	39.0	36.2	38.4	38.7	111.2	289.4	
Schedule Goals (milestones)								
C. Baseline: *								
Cost Goals (\$M)	25.9	39.0	36.2	38.4	38.7	112.2	289.4	
Schedule Goals (months)								
D. Current Estimate:*								
Cost Goals (\$M)	25.9	39.0	36.2	38.4	38.7	112.2	289.4	
Schedule Goals (months)								
E. Variance from Baseline Goals:								
Cost Goals (\$M)								
Schedule Goals (months)								

^{*}Represents funding line.

F. Corrective Actions: N/A

Schedule Goals: The AEA is not a system acquisition; therefore, the AEA does not follow acquisition life cycle management milestones.

Milestones N/A

Baseline (Milestone) Schedule	Last President's Bu	udget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Milestone, phase; increment 1-N			

Program Recap

FY 98 Accomplishments

- Eliminated requirement for two Division Tactical Command Posts (DTACS) based on operational architecture (OA) analysis
- Updated 1st Digitized Force Systems Architecture (1DFSA) v2.0 for extension into installation and weapons domains
- Developed v1.0 for 2DFSA (1CD) and v0.8 for selected 1st Digitized Corps (III Corps Units), 1st Digitized Force Armored Cavalry Regiment (3 ACR)
- Implemented Army DII COE strategy
- Continued Division OA Initiated Echelons Above Corps OA
- Began development of draft AEA policy AR 25-1 & AEA Guidance Document
- Released AEAMP Strategy –identifies AEA strategic goals and objectives
- Draft Program Plan in coordination used to determine AEA FY 00-05 POM requirements.
- Documented existing and overlay communications infrastructure for all Army CONUS installations under I3A
- Began development of a System Architecture (SA) for an Army lead Joint Task Force (XVIII Airborne Corps) in the '00 time frame based on current and emerging Joint Doctrine. This effort will complement and provide the initial foundation for the Joint Contingency Force (JCF) Advanced Warfighting Experiment (AWE) SA efforts.
- Began efforts to conceptualize the SA for the Army After Next (AAN) in 2010.

FY 99 Accomplishments:

- Released AEA Guidance Document Versions 1.0 and 1.1 to expand on policy provided in AR 25-1 and to provide detailed procedures regarding development, management, and use of AEA models and products to the field.
- Released AEAMP Program Plan Version 1.0, used to impact FY 01-05 Mini-POM
- First AEA Development Plan (DP) drafted and instituted to synchronize incremental and mutually supporting production of OA and SA the JCF AWE is the prototype. AEADP methodology approved by EGOSC. Expanded I3A across Army installations
- Continued M&S efforts to assess adequacy of Army Systems Architecture to meet battlefield and power projection platform operational requirements.
- Continued development of Combat Service Support (CSS) OA, Corps OA and OA data modeling activities. Complete Brigade/Division Node level OAs.
- Continued implementing DII COE strategy across Army domains
- Link AEA process with key Army institutional processes e.g.: Requirements Determination, PPBES, & Acquisition reduced time and costs for architectural development related to force management

FY 00 Goals

- Complete AEA Master Plan Strategy and Program Plan version 2.0 to support AEA FY02-07 POM submission identifying requirements for architectures that need to be developed and maintained in the FY02-07 timeframe.
- Complete JTA-A version 6.0 to support the development of the 1st Digitized Corps (III Corps) architectures.
- Begin development of synchronized OAs and SAs IAW Army priorities under the AEADP effort AEADP methodology approved by the EGOSC will result in decreased time/cost to develop Army Mod architectures
- Continue expansion of I3A across Army OCONUS installations.
- Continued M&S efforts to assess adequacy of Army Systems Architecture (ASA) to meet battlefield/sustaining base operational requirements.

• Begin architecture development of Transformation Brigade IAW CSA guidance

FY 01 Goals

- Continue operational/systems architecture development of Chief-of-Staff directed Transformation Brigades.
- Continue development and maintenance of Army Modernization architectures IAW Army Digitization Master Schedule i.e., 1st DFSA (Baseline Heavy Division), 1st Digitized Corps (III Corps), 1st CAV, 1st Digitized ACR (3ACR), and 82nd Airborne Div (1st Digitized Light Division).
- Continue I3A for OCONUS I3A provides standard IT template for information infrastructure, information assurance, business area requirements, and strategic reach-back requirements for OCONUS sustaining base.
- Publish version 6.5 maintenance version of the JTA-A and support updates to DoD JTA
- Continue program management, data management, M&S, testing and certification, standards development, technology insertion, and HW/SW development and maintenance in support of AEA development, management, and use.
- Use Army Modernization architectures for Brigade Set Fielding.

Performance Goals:

- Integrated and synchronized architectural solutions that support warfighters' planning and operational needs.
- Concrete descriptions of IT requirements and capabilities, based on the joint and Army operational concept of information dominance.
- Traceability of operational information exchange requirements to systems-of-system functionality.
- Ability to seamlessly insert evolving IT capability into the force structure.
- Stronger Army, joint, and combined interoperability and flexibility.
- An IT investment strategy that leads to fielding integrated capabilities that support Army warfighting requirements.

G. Year 2000 Special Information: The AEA is not a systems acquisition; therefore, Y2K is not an issue. AEA required software/hardware is COTS Y2K compliant at time of purchase and there are no integration issues.

	Previous President's Budget	Current Submission
Date of Accomplishment		
Funding Estimate by Phase		
Estimate time that for full Y2K Compliance		

Description Information:

Initiative Name and Acronym: Army Recruiting Information Support System (ARISS)
Initiative Number: 6040
Project Activity/Mission Area: Functional Area applications Area/Military Personnel & Readiness
Date Project was initiated: JRISS was initiated 13 October 1994. OSD terminated JRISS and authorized Army to transition to an
Army specific ARISS acquisition, 12 February 1998
Date of Last Acquisition Decision Memorandum (ADM): 5 January 1999
Project is in I/II Milestone to design/develop Army specific ARISS functionality beyond Recruiter Workstation (RWS) Packet
Projection Increment and Milestone III for JRISS Increment Alpha hardware/Commercial Off the Shelf (COTS) software and ARISS
RWS Packet Projection Increment deployment
Project Status: New Ongoing 🖂
Information Technology Project: Yes No
Is this project a financial management system? Yes \overline{\text{No}} \overline{\text{No}}
If yes, what percentage is financial%
Current Year 2000 Phase: Implementation
Year 2000 System Status as of January 14, 2000 (non-compliant, compliant, funding available): compliant
Projected Date for Completion: Completed 30 September 1999
Mission Critical Status: No
Standard System Status: Yes
Organizational Information/Program Manager: Kevin Dwyer, PEO STAMIS, (703) 806-3614, FAX (703) 806-4289, PM ARISS: LTC
Harrison D. Fountain, (502) 626-1101, FAX (502) 626-0927, PEO STAMIS, ATTN: SFAE-PS-JR, 1307 3 rd Ave, Bldg 6580,
Eisenhower Ave., Ft. Knox, KY 40121-2726

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Army Recruiting Information Support System (ARISS)

Project Activity/Mission Area: Functional Area Applications Area/Military Personnel & Readiness Project

			Dol	Dollars in Millions								
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total					
Planning												
OMA	9.2	0.0	0.0	0.0	0.0	0.0	9.2					
Total Dev Mod	9.2	0.0	0.0	0.0	0.0	0.0	9.2					
Full Acquisition												
MPA	7.8	0.1	0.1	0.1	0.0	0.0	8.1					
OMA	27.1	4.4	10.3	0.0	0.0	0.0	41.8					
OPA	57.8	10.5	8.8	6.5	5.3	26.0	114.9					
RDTE	0.0	0.0	0.0	8.6	0.0	0.0	8.6					
Total Dev Mod	92.7	15.0	19.2	15.2	5.3	26.0	173.4					
Current Services/Maintenance												
OMA	5.8	2.0	3.7	4.8	4.7	14.6	35.6					
Total Current Service	5.8	2.0	3.7	4.8	4.7	14.6	35.6					
Total Resources by FY	107.7	17.0	22.9	20.0	10.0	40.6	218.2					

Part II. Justification: Provide Requested Justification Materials

A. Description/Performance Characteristics:

The Army Recruiting Information Support System (ARISS) is an Army specific continuation of the DoD wide Joint Recruiting Information Support System (JRISS). JRISS, an OSD MAISRC approved system, was terminated as a joint development effort in second quarter FY 1998 based on the department's lack of resources to fully fund the defined joint effort. Each service was authorized to reallocate funds originally designated for the JRISS effort to independently correct deficiencies in legacy systems. An OSD Acquisition Decision Memorandum (ADM) dated 12 February 1998, delegated management and oversight to the Army. Army has internally reallocated funds to acquire and deploy a robust integrated automation capability to enhance Army recruiting business processes. ARISS will enhance Army's ability to attract highly qualified, capable recruits while reducing individual recruiter workload. The Army Director of Information Systems for Command, Control, Communications, and Computers (DISC4)/Chief Information Officer (CIO) as Milestone Decision Authority (MDA) for ARISS, issued a MS I/II (ARISS Design/Development) and MS III (JRISS Alpha/ARISS Recruiter Workstation (RWS) Packet Projection Deployment) ADM on 5 January 1999.

Army is using the completed JRISS Alpha increment as a base upon which to build ARISS, a modern integrated Army specific recruiting automation system. Army completed the Recruiter Workstation (RWS) Packet Projection Increment, the first Army specific software increment in 1998 and received approval to incorporate this increment into the deployed baseline in January 1999. Additional planned enhancements will improve recruiting business processes to allow Army to meet new accession goals in an era of steadily dwindling resources and a shrinking pool of applicants for military service. Infrastructure supporting this system will be designed to allow core personnel data to be entered at the point of entry for recruits into the Army. The system will support establishment of standard personnel data elements in consonance with DoD Corporate Information Management (CIM)/Business Process Review (BPR) policies. Electronic interfaces are currently planned with the U.S. Military Entrance Processing Command (MEPCOM) Integrated Resource System (MIRS) and existing Army military personnel systems. Army will also work closely with the Navy as they develop the proposed Defense Integrated Military Human Resources System (DIMHRS) to assure that the necessary integration and/or interfaces are implemented to allow the ARISS to successfully interface/integrate with DIMHRS.

ARISS will provide critical software tools and associated automation infrastructure to support recruiters and the overall recruiting mission. It will provide each recruiter with a state-of-the-art portable, interactive, multimedia workstation both to support business process improvements and to serve as client infrastructure to interface with Army legacy recruiting systems until their functionality is subsumed by the modern system. The Army's acquisition strategy will maintain the same phased approach used in the joint program.

The revised Army-only acquisition strategy consists of the following five elements.

- JRISS Alpha increment. The Alpha increment installs the recruiter workstation (RWS) infrastructure for this and follow-on increments and provides the recruiter with a mobile multimedia sales presentation, electronic mail, automated aptitude test, and office automation. Through FY99, this increment had been deployed to more than 14,000 Army recruiters. Approximately 1,000 additional mobile workstations will be acquired/deployed in FY00 to support increased military recruiter authorizations and use of contractors to augment military recruiters. RWS life cycle replacement will begin in FY01.
- Recruiter Workstation (RWS) applications. Mission unique functional requirements at the recruiter level are addressed through the RWS applications. The first application, Packet Projection (P/P), was fielded in FY99 and is in operational use. P/P provides the recruiter with the capability of producing an automated enlistment packet using single-source, one time data entry. The enlistment data is electronically projected to the Military Entrance Processing Stations (MEPS) and will be available to the USAREC Headquarters Support System (HSS) via a standardized relational database. P/P functionality on the mobile RWS allows the individual recruiter to spend more time in the market and less time in the station doing administrative processing. A second RWS application, Leads/Reports, will support leads distribution, system generated management reports and automated waiver approval process. This application is currently being developed and will be deployed in FY 00.
- USAREC Headquarters Support System (HSS). The HSS provides decision support tools to USAREC and consists of two major components an operational support system to effectively manage human and resource materials and an analytical

data repository. The HSS operational support system will consist of the following six modules: Force Structure; Address and Zip Code Realignment (FAZR); Personnel (PER); Mission, Production, and Awards (MPA); and Recruiting Improprieties (RI). The HSS decisions support data repository supports the following areas: Management Accounting System (MAS) and Market Share System (MSS). The HSS decisions support data repository also allows tracking of data on accessions and other pertinent recruiting functional areas required for recruiting management and historical analysis. The HSS will interface with other Army and DoD recruiting and personnel information systems. HSS applications will be integrated into the recruiting functional architecture and phased into HQ mission areas as they become necessary to support RWS applications and C2 requirements.

- Guidance Counselor Applications and Standard Database. This increment will support business process improvements in the final stages of processing applicant/enlistment data. It will support recruiting personnel and Army Guidance Counselors (GC) located at Military Entrance Processing Stations (MEPS). It will facilitate collection of medical and aptitude testing data, assist the counselors in providing military career information, assist GC in providing military career information, and provide interfaces with other personnel systems. Thus increment will be designed to be consistent with other ARISS applications and the ARISS database. Development of these capabilities will commence in FY 00 with deployment in FY 01.
- Legacy Infrastructure Replacement. Infrastructure supporting existing legacy systems is well past its economical service life. The legacy systems are being ported to new modern infrastructure which will be reused to support ARISS applications, once developed. This approach reduces near term legacy system infrastructure maintenance costs while improving reliability and data processing capabilities. Any savings generated will be applied to help offset portions of the sustainment cost for fielded ARISS applications. Infrastructure being acquired consists of application processors, network servers and communications hardware. To date, obsolete minicomputers have been replaced with new servers at the 65 MEPS and approximately 500 guidance counselor workstations have been replaced with modern multimedia desktop PCs. This effort will conclude with replacement of obsolete infrastructure at regional data centers and Headquarters, USAREC in FY00-FY01.

ARISS will help the Army meet the DoD mission need to recruit and retain well qualified military personnel by replacing outmoded legacy recruiting automated systems with a robust modular automated system based on improved recruiting business processes. The system will facilitate standardized recruiting business processes across all Army components and provide a means to generate standard military personnel data at applicant entry into the Army. (It will improve military personnel management and minimize the need for manual data input.) It will also provide valuable prospecting and sales tools to the individual recruiter to aid in attracting highly qualified applicants for military service. The system is being designed to comply with emerging Joint Technical Architecture (JTA) and Defense Information Infrastructure Common Operating Environment (DII COE) standards. The JRISS effort was closely coordinated with the Defense Information Systems Agency (DISA) to assure that the JRISS data structure would be compliant with the standardized DoD data structure. ARISS is based on the same data structure. This will simplify transfer of data collected by Army recruiters to and use of Army recruiting data by other systems requiring accurate military personnel data. The use of these standards also helps assure that the system architecture is flexible and capable of accommodating additional system requirements, technological improvements, and new functionality. It also allows ARISS to serve as a conduit to provide standard military personnel data at applicant entry into the Army. Data standards on which the system is based will support improved military personnel management.

Under the provisions of the Defense Management Review (DMR), and the 1989 Corporate Information Management (CIM) initiative, a business process re-engineering (BPR) initiative was established by the Secretary of Defense. In support of this direction, in FY 1992 the Under Secretary of Defense (Personnel and Readiness) QUSD(P&R)), as principal Staff Assistant (PSA) for Human Resource Management directed a full review of BPR needs for Military Personnel. This was a comprehensive examination of Military Personnel and its associated activities including the military personnel management system. An integral part of the personnel system is the Military Enlisted Recruiting program managed by the individual service components. As a part of this focus on enlisted recruiting, over the next two years, a series of work groups took place to examine activities associated with each service's recruiting process to identify differences, commonalties, redundancies, and BPR opportunities. Integrated Definition Activity Modeling (IDEF0) was used to define activities that made up the recruiting functional baseline. A Node Tree, Context and Decomposition Diagrams were developed which reflected the total breath, depth and details of the recruiting process of each individual service component, as well as the recruiting process for the entire department. In FY 1997, during the design phase of the JRISS effort that resulted from the above activities, the Military Services reviewed progress to date and evaluated outyear costs to complete the joint

acquisition. This review resulted in a decision that the JRISS effort could not be completed with resources available from the Military Services. As a result of this decision, the ASD(C3I) issued a JRISS ADM terminating the joint acquisition and authorizing Army to proceed with an Army specific ARISS acquisition based on the same parameters that were to be used to acquire the JRISS capability.

For the joint program, DoD evaluated various options for establishing a common automated system to support Military Service recruiting business processes. The comparative costs of modifying legacy systems to comply with JTA/DII COE standards and support standardized military recruiting business processes and development of a new system (JRISS) with the same objectives, resulted in the decision to develop JRISS. A Preliminary Functional Economic Analysis (FEA) for Military Enlisted Recruiting was completed in 1994 and was the basis for the OSD MAISRC Milestone 0 Decision to initiate JRISS. Based on positive results from testing of the existing JRISS capability, the OSD MAISRC granted deployment authority in July 1997. JRISS was terminated due to affordability issues. Further expansion of joint recruiting functions will be deferred pending the initiation of the DIMHRS acquisition effort in order to leverage anticipated DIMHRS standards and capabilities. Efforts have commenced on the Army specific ARISS implementation. The Army Cost Position (ACP) for ARISS indicated that full implementation of ARISS will generate a Return on Investment (ROI) of more than 11 to 1 and also provide valuable intangible benefits to the Army.

B. Program Management/Management Oversight:

The ARISS Process owner is the Military Personnel Recruiting community as represented by the HQDA DCSPER as ARISS functional proponent and the U.S. Army Recruiting Command as ARISS combat developer. The acquisition executive agent is the Program Executive Officer for Standard Army Management Information Systems (PEO STAMIS). The product manager for ARISS is assigned to PEO STAMIS who reports directly to the Army Acquisition Executive (AAE). The Contracting Office for the ARISS acquisition is the General Services Administration, Huntsville, Alabama.

ARISS uses Integrated Project Teams (IPTs) to develop/coordinate major program areas. IPTs established include Product Development Team, Testing, Functional Requirement, Architecture/Integration, Security, Software Quality Assurance and Risk Management.

The primary system cost drivers requiring intensive management are those associated with system design and development. PM ARISS has implemented extensive management controls to assure that goals in this area are met. The primary implementation vehicle has been aggressive teaming with EDS (the prime development contractor) to establish/follow "Software Best Practices" methodologies for each major development task. Each methodology outlines the task process and supporting products and establishes evaluation criteria for each product. Each task process is managed using a master schedule. As subtasks supporting each process are initiated, products comprising each subtask are placed under configuration management and earned value goals are established. The developer is credited with earned value for each subtask when the products comprising the subtask deliverables meet the evaluation criteria and are delivered to the government.

Processes have also been established to assure that the acquisition effort truly meets the end user requirement. Periodic user reviews are conducted to assure continual dialogue and feedback on progress in the acquisition and to assure that system products adequately meet user needs. The final integrated product will be maintained by the United States Army Recruiting Command. An initial Army specific software increment (RWS Packet Projection) has been deployed. Remaining system requirements will be fulfilled through follow on product line increments. Use of ICASE tools during ARISS/JRISS development has significantly reduced time and effort required for system development. Key Program/Software Development Measures are detailed below:

Schedule and Progress - The ARISS PMO is managing progress using a Master Work Breakdown Schedule. The five major acquisition tasks are continued Alpha deployment, development of USAREC Headquarters applications, development of the recruiter workstation applications, redesign of the Guidance Counselor application, and early replacement of legacy system hardware. The project is managed by reviewing the master WBS weekly, assessing performance and progress, and adjusting resources as necessary

Growth and Stability - The ARISS PMO has completed detailed configuration management procedures and is using a knowledge management configuration management product during application development. The PMO/contractor team is using well-defined methodologies that clearly outline processes across the software best practices, define the expected product and establish evaluation criteria. Adherence to these procedures and strict CM is the PMO plan to control growth and manage change. The Alpha and RWS Packet Projection increments were well controlled using the above process and have entered CM.

Funding and Personnel Resources - The FY 2000 – 2005 POM fully funded the ARISS requirement for the POM period. Army increased FY 1999 OMA funding in the FY 1999 funding letter to allow deployment of the full functionality ARISS baseline by the end of FY 2001. There were only minimal changes to ARISS funding in the FY 2001 – 2005 mini-POM.

Product Quality - The ARISS PMO and Integration Contractor have instituted and are operating IAW all necessary development methodologies required to deliver a quality product.

Software Development Performance - The ARISS PMO and the System Integrator, EDS, have formed a sound government/contractor team. The contractor is conducting peer reviews of the applications presently in development. User reviews are conducted frequently. Individual ARISS increments are in various stages of design and development. The Recruiter Workstation (RWS) Packet Projection increment was completed, received a favorable system assessment from Army's Operational Test and Evaluation Command (OPTEC) and was fielded in FY 1999.

Technical Adequacy – IBM Thinkpad laptop computers were selected for deployment to the final two Recruiting Brigades and states/territories and have performed very well in an operational environment.

C. Contract Information:

Major contract names; prime contractor. Software development support for ARISS is being provided by Electronic Data Services (EDS), Fairfax, Virginia (GSA BPA Number GS04K98DEA0001 established against GSA Schedule Contract Number GS-35F-3109D).

Type of contract. ARISS infrastructure (Commercial Off the Shelf (COTS) hardware and software) is being acquired from multiple vendors through use of existing Indefinite Delivery/Indefinite Quantity (IDIQ) contracts and GSA acquisition vehicles. Custom software development is being accomplished through a time and materials contract with EDS. The terms of the task order are based on the terms and conditions of the GSA Schedule Contract, the GSA BPA and the ARISS Statement of Work (SOW). The support is provided in a level of effort format by changing actual hours worked against negotiated rates established in the GSA BPA.

D. Architecture and Infrastructure Standards:

ARISS meets current Government wide, DoD and Army interoperability requirements. OSD has issued a directive that all-new C4I systems and other systems that interface to C4I systems shall be in compliance with the Joint Technical Architecture (JTA). The JTA in turn mandates use of the Defense Information Infrastructure Common Operating Environment (DII COE). Reference is specifically made to C4 Intelligence Surveillance, and Reconnaissance (C4ISR) Architecture Framework, CISA-0000-104-96, Version 1.0, 7 June 1996, C4ISR Integration Task Force (ITF) Integrated Architectures Panel. This document presents an innovative definition of levels of interoperability. The DII COE adopts these levels of interoperability and maps DII compliance to interoperability levels. The COE defines eight progressively deeper levels of integration for the Runtime Environment Category. These levels are directly tied to the degree of interoperability achieved. True integration begins at Level 4. ARISS is being designed to be no less than JTA/COE Level 6 compliant.

Infrastructure Strategy:

- a. HW requirements included in this funding. All ARISS hardware requirements are included in this funding.
- b. Transport. A combination of methods will be used to satisfy transport requirements. Intra-installation (on a post, base, or camp) transport requirements will be supported by dedicated system transport assets. Inter-installation (between posts, bases, or camps) transport requirements will be supported by a combination of new system specific circuits and existing DoD/Military Service long haul communications assets. Telecommunications requirements for end user recruiters not located at a military installation will be supported through use of some form of dial up telecommunications capability. Objective procedures for dial up communications are still being finalized to provide a solution that will maintain acceptable levels of security at a reasonable cost.
- c. The interdependencies with other acquisitions. Other than required interfaces with Joint and Army specific personnel and recruiting process support systems, ARISS has minimal interdependencies with other systems.
- d. ARISS is a mix of COTS software, custom applications developed using COTS CASE tools, and software provided as Government Furnished Equipment (GFE). Office Automation, report generating software, and multimedia capabilities are examples

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of COTS products integrated in the total ARISS capability. Custom software applications are produced using Powerbuilder COTS products. Multimedia videos and aptitude testing software are provided as Government Furnished Equipment (GFE) by the ARISS customer. ARISS has limited development of custom components to only those recruiting business processes which are not readily supportable by COTS products. Even in instances where custom components are necessary, costs are being controlled by use of Powerbuilder COTS design tools. This has helped assure that the ARISS technical solution adequately supports the redesigned military recruiting business processes needed to both reduce recruiting costs and improve the effectiveness of individual recruiters in a cost effective and economical manner.

E. Program Highlights

The Acquisition Decision Memorandum authorizing deployment of the Recruiter Workstation (RWS) Packet Projection Module to all Army recruiters was signed in January 1999. Since that time, Army has deployed the RWS Packet Projection Module to all Army recruiters.

Army continues development of the RWS Leads/Reports module and the ARISS Headquarters Support System (HSS) and Guidance Counselor capabilities.

F. Financial Basis for Selecting the Project:

			Γ	Oollars in Milli	ons		
	Sunk Costs	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004-N	Total
APB Total Resources by FY	127.8	23.1	20.7	9.6	14.4	29.3	224.9
Rebaseline Total Resources by FY	128.6	22.9	20.0	10.0	13.7	26.9	222.2

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An ARISS Cost/Benefit Analysis and corresponding APB have been completed and the resulting Army Cost Position (ACP) has been approved by the ASA (FM&C). Based on approved estimates from the ACP, the ARISS ROI calculated from net future benefits (over the full ARISS life cycle) divided by investment costs will exceed 11 to 1. The ARISS Acquisition Program Baseline (APB) based on the ACP was approved by all signatories on 21 December 1998.

Note: APB Total Resources by FY and Rebaseline Total Resources by FY reflect only ARISS resources through FY 2005 controlled and/or managed by PEO STAMIS/PM ARISS. Signed APB also includes outyear resources and resources in FY 2002 through FY 2005 currently budgeted for legacy systems that will be moved to ARISS upon transition from legacy baseline to ARISS baseline.

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

Baseline Information:

The JRISS project commenced in FY 1994. JRISS approved costs and benefits were based on the Preliminary Functional Economic Analysis (FEA) for Military Enlisted Recruiting completed in 1994. Benefits and Return on Investment (ROI) were based strictly on tangible savings anticipated from JRISS implementation. An updated Economic Analysis (EA) was developed for the final OSD MAISRC review of JRISS. Updated data in the unvalidated EA indicated a positive ROI for full JRISS implementation. However, due to limited availability of investment resources, JRISS was deemed unaffordable and the joint effort was terminated in 2nd Quarter FY 1998. Efforts have been completed to determine the overall costs and benefits of ARISS and the associated ROI. CEAC has completed the Army Cost Position (ACP) and the ACP has been approved by the ASA (FM&C). Based on successful independent testing of the Packet Projection increment and an ROI of more than 11 to 1 projected to result from ARISS deployment, Army issued an Acquisition Decision Memorandum (ADM) authorizing full deployment of the ARISS Packet Projection Recruiter Workstation (RWS) increment and full design/development of remaining ARISS Increments.

	Cum total FY 1998 and prior	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total
B. Previous Balance:							
Cost Goals (\$M)	107.7	20.1	23.1	20.7	9.6	43.7	224.9
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals (\$M)	107.7	20.1	23.1	20.7	9.6	43.7	224.9
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals (\$M)	107.7	20.9	23.0	20.0	10.0	40.6	222.2
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals (\$M)	0	0.8	-0.1	-0.7	0.4	-3.1	-2.7
Schedule Goals (months)	0	0	0	0	0	0	0

Note: Previous Balance, Baseline, and Current Estimate reflect only ARISS resources controlled and/or managed by PEO STAMIS/PM ARISS. The Signed APB also includes resources in FY02 through FY05 currently budgeted for legacy systems that will be used to support ARISS upon transition from legacy baseline to ARISS baseline.

• Baseline of APB - An ARISS Cost/Benefit Analysis and corresponding APB were completed in FY 1998. These products received final HQDA validation which resulted in the ASA (FM&C) approving the ARISS Army Cost Position (ACP) in December 1998 on which the current APB is based. The ARISS ROI calculated from net future benefits divided by future investment costs incurred through Full Operating Capability (FOC) is projected to exceed 11 to 1.

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- Slippages: ARISS is behind schedule on the FY00 Product Line and the PM and customer is assessing the impact on the FY01 Product Line. The delays are due primarily to significant requirement changes as the Army institutes business process improvements to respond to the current dynamic and challenging period for recruiting.
- Cost Goals of current approved milestone/phase: There have been minor changes to program costs and corresponding funding for ARISS since the FY 2000 President's Budget. These primarily reflect increases in FY 1999 to provide increased near term operational support to ARISS users and outyear increases to accommodate requirement changes and scope changes.
- Basis of the dollar change and impact the milestone/phase/increment objectives: There have been minor reductions since the FY 2000 President's Budget. These changes are being evaluated to determine impacts on ARISS program schedule.
- Variance from FY 2000 President's Budget: Program cost changes since the FY 2000 President's Budget have been minimal, totaling less than 10% in any fiscal year.
- Justify the variance: There has been minimal program variance in any fiscal year. Variance through FY 2001 will not impact scheduled Full Operating Capability scheduled to be achieved at the end of FY 2001. Variance beyond FY 2001 could potentially impact ARISS system sustainment. However, the PM ARISS and the functional user community have committed to taking all steps necessary to properly sustain the modernized baseline once deployed to preclude any serious impact resulting from changes to date.
- Cost variance: ARISS Cost variance has not exceeded 10% in any fiscal year.

F. Corrective Actions:

• PM ARISS has instituted aggressive cost control procedures. Based on current FYDP resource levels, the ARISS program is not fully executable.

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- Effect the actions will have on cost, schedule and performance. Requirement changes and scope changes are occurring within budget or execution year and availability of funding is dependent on Army's allocation of funds to address UFRs.
- Barriers or risks to meeting funding/cost goals and methods to reduce risk. Current ARISS funding is not adequate to support critical user desired ARISS functionality. The ARISS PMO has worked closely with his Army functional customer to perform the necessary cost and funding tradeoffs required to achieve an executable Army specific program. An updated Economic Analysis will be derived from this effort. To assure that the ARISS acquisition effort would result in a fieldable capability, the PM and the functional community also derived an evolutionary and incremental acquisition strategy. This strategy called for ARISS to be acquired in four discrete increments. The first increment (Alpha) was completed through joint program and was fielded to Army and selected USMC recruiters. PM ARISS completed fielding Increment Alpha to Army recruiters and is enhancing the Alpha capability incrementally with Army specific capabilities. PM ARISS has fielded the Alpha capability along with the first Army specific enhancement (RWS Packet Projection increment) to all Army recruiters.

Schedule Goals:

Milestones

Baseline (Milestone) Schedule	Last President's B	udget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Army Milestone 0	4QFY94	Completed	
OSD Milestone 0	4QFY94	Completed	
Army In Process Review	2QFY95	Completed	
OSD In Process Review	2QFY95	Completed	
Working Level IPT (Army)	4QFY96	Completed	
Working level IPT (OSD)	4QFY96	Completed	
Working Level IPT(Army/OSD)	2QFY97	Completed	
Working Level IPT (Army/OSD)	3QFY97	Completed	
Termination of JRISS and delegation of	12 Feb 98	Completed	
ARISS to Army			
Army Milestone III (Infrastructure)	3QFY98	Completed	
Army Milestone I/II (Remaining	3QFY98	Completed	
Development)			
Army Milestone III (Packet Projection)	2QFY99	Completed	
Army Milestone III (Manage			4QFY00
Leads/Reports)			
Army Milestone III (Total ARISS			3QFY01
Integration)			

- Change to the estimate (reason and impact). No change to estimates reported in the FY 2000 President's Budget.
- Justify variance from schedule from FY00 President's Budget.No variance from schedule.

• Corrective Actions, barriers or risks to meeting schedule goals and methods to reduce risks. The program has an adequate program to identify and document risks but must improve on executing mitigation plans to facilitate schedule completion. The PM had an independent assessment of the schedule development process and risk management and some areas were identified that, while not major, could improve the management of the project. The PM is in the process of instituting the internal changes and working with the contracting office on areas related to the contract vehicle and metric reporting.

Performance Goals:

The ARISS acquisition has two major goals. The first is to support improved recruiting business processes which will allow Army recruiters to compete effectively for a dwindling pool of potential recruits for military service. ARISS does this by providing each recruiter with enhanced sales and marketing tools and enhanced administrative and clerical support tools to reduce the time recruiters must spend on administrative and clerical tasks (leaving more time for actual recruiting). ARISS will also provide recruiting commanders with improved communications and management capabilities (to better track recruiter effectiveness and provide necessary support/training when necessary to assure acceptable levels of recruiter performance).

The current strategy is to replace all legacy systems and achieve ARISS Full Operational Capability (FOC) by the end of FY 2001.

- a. Provide all the functionality contained in the current legacy systems.
- b. Provide system security to protect the confidentiality of sensitive information.
- c. The system data will comply with DoD standards.
- d. Enable recruiters to enter data for the prospect or applicant only once during the entire accession process.
- e. Electronically exchange information with external agencies.
- f. Improve the quality of life for recruiters to enhance job performance, improve morale, and reduce turnover. Provide a fully portable system that will equip the recruiter with a portable recruiter workstation (RWS) (such as laptop computer, printer, and

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internal facsimile/data modem, dial-up access). This will enhance the recruiter's ability to conduct business away from the recruiting station, producing facility savings and affording the recruiter greater visibility and responsiveness.

- g. The system must be Year 2000 compliant.
- h. Automate recruiting documentation processing, leads management, and management reports. Provide full prospecting capabilities to include market information, automated update and distribution of leads.
- i. Automate recruit management reporting, including report production and transmission, historical report access, to save recruiters time and enable managers to stay better informed about recruiter schedules, performance, and expenditures.
- j. Provide office automation, electronic mail capability, and limited Internet access.
- k. Provide a data repository to share accession and other recruiting data required for recruiting management, ad hoc query, market analysis, personnel assignment, mission assessment, and historical analysis.
- 1. Provide a built-in data backup capability.
- m. Transmit applicant projection and testing data to the Military Entrance Processing Stations for processing and ultimate entry into personnel and training systems.
- n. Provide multimedia sales presentations at the point of sale, to include home, school, place of business.
- Accomplishments to date; mission and system performance goals against the milestone schedule: In FY 1997, PM JRISS completed evaluation of the JRISS Alpha increment consisting of multi-media laptop computers, Commercial Off the Shelf (COTS) Software, and Government Furnished Equipment (GFE) (aptitude testing software and multimedia videos). The JRISS Alpha increment was subsequently deployed to Army, Navy, and Marine Corps recruiters. In

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FY 1998, PM ARISS completed the RWS Packet Projection increment. This increment has been integrated with the existing Alpha increment and has been deployed to all Army recruiters.

In FY 1998, OSD and the services finalized the decision to terminate the joint effort based on affordability issues. Army continued with deployment of the completed JRISS Alpha increment to additional Army recruiters and implemented a rescoped Army specific effort. As part of this effort, development was completed on the laptop based automated enlistment packet. Testing of this initial RWS application was completed in 1998 and was deployed to all Army recruiters. The current RWS increment (Leads/Reports) is being developed and is currently projected to be completed in FY00. The FY00 product line will also include two HSS products (FAZR, MPA) and complete fielding of the hardware infrastructure to replace the legacy system.

Development efforts for the final RWS application (Guidance Counselor Redesign) will be completed in FY 2001. It will be deployed as an enhancement to existing capabilities (Leads/Reports). The FY01 product line will also include two HSS modules (PER, RI) and the data repository.

In FY 2002, USAREC will assume PDSS responsibilities for the fielded ARISS products. Sustainment efforts for completed applications and deployed ARISS infrastructure will continue through the ARISS life cycle.

- Variance from performance from FY00 President's Budget: No variance.
- Corrective actions, barriers or risks to meeting schedule goals and methods to reduce risk: The ARISS schedule is ambitious. Changing requirements and processes in the Recruiting Command, module complexity and integration could result in cost increases and/or delays in system completion. In such an event, either additional funds will have to be allocated to the ARISS effort or ARISS capabilities will have to be reduced using CAIV. Budgeted ARISS infrastructure costs are based on significant cost savings due to technological advances. If such cost savings do not occur or costs do not fall as rapidly as projected, it will be necessary to either increase funds for infrastructure or reduce the population supported.

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Goal accomplishments.

The ARISS functionality that is fielded to Army Recruiters should generate efficiencies in performing recruiting operations and management should realize savings from performance monitoring and reporting procedures. The recruiter should be able to reinvest saved time to dedicate to prospecting and leads development.

Description Information:

Initiative Name and Acronym: Close Combat Tactical Trainer (CCTT) Initiative Number: 5053
Project Activity/Mission Area: Science and Technology
Date Project was initiated: Apr 91
Date of Last Acquisition Decision Memorandum (ADM): 14 Dec 98
Project is in III Milestone, Approval Dated: 14 Dec 1998, Production Phase as of current review.
Project Status: New Ongoing O
Information Technology Project: Yes No
Is this project a financial management system? Yes \overline{\text{No}} \overline{\text{No}}
If yes, what percentage is financial%
Current Year 2000 Phase: Completed
Year 2000 System Status as of January 20, 1999 (non-compliant, compliant, funding available): Compliant
Projected Date for Completion: Completed
Mission Critical Status: Yes
Standard System Status: Yes
Organizational Information/Program Manager: Leeza Torres, DSN: 970-3607, FAX DSN: 970-3611, STRICOM, ATTN: AMSTI-
PMCATT, 12350 Research Parkway, Orlando, FL 32826-3276

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Close Combat Tactical Trainer (CCTT)

Project Activity/Mission Area: Functional Area Applications Area/Science and Technology

	Dollars in Millions						
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total
Planning							
Total Dev Mod	201.3	0.0	0.0	0.0	0.0	0.0	201.3
Full Acquisition							
<u>OPA</u>	121.1	87.9	64.7	81.2	35.0	7.7	397.6
<u>MCA</u>	32.6	7.6	0.0	0.0	0.0	0.0	40.2
RDT&E	14.9	9.2	13.1	7.7	5.0	15.1	65.0
Total Dev Mod	369.9	104.7	77.8	88.9	40.0	22.8	704.1
Current Services/Maintenance							
<u>OMA</u>	14.9	15.9	18.0	23.0	26.3	112.7	210.8
Total Current Service	14.9	15.9	18.0	23.0	26.3	112.7	210.8
Total Resources by FY	586.1	120.6	95.8	111.9	66.3	135.5	11,162.0

Part II. Justification: Provide Requested Justification Materials

A. Description/Performance Characteristics: Close Combat Tactical Trainer (CCTT) will be a networked system of manned simulators (Tank, Bradley, FIST-V, HMMWV, M113A3) supported by emulators and semi-automated forces that provide combat support, combat service support, and both friendly and opposing forces. It will train crew through battalion level combat elements of close combat units of both the Reserve Component (RC) and Active Component (AC) in their collective tasks as defined in the Mission Training Plan (MTP) for those units. The Army will field simulator modules to 10 fixed company-level production sites and 12 mobile platoon-level sites. Each fixed system will contain a maximum of 40 simulator modules, which is based on the locations of AC division and regiments, and will service both AC and RC units. The CCTT fixed site facility contains: a simulation bay sized to accommodate from 27 to 40 manned modules; Observer Control (OC) and a Tactical Operations Center (TOC); five After Action Review (AAR) Rooms; two Semi-Automated Force (SAF) Rooms (Blue and Red) each containing five SAF workstations; Maintenance Control Console (MCC) Room; and a Master Console (MC). The mobile platoon systems contain 4 simulators in the tank platoon version and 5/7 simulator modules in the infantry/cavalry platoon version. Dedicated to the RC, these mobile systems will be based out of AC installation Training Support Centers (TSC) but will travel to RC unit armories for training at home station.

CCTT is being developed to meet a HQDA-approved Training Device Requirement, dated 14 June 1991, Catalog of Approved Requirements Documents (CARDS) Number: 0222R.

This program will develop a networked system of interactive computer driven simulators, emulators, and semi-automated forces that replicate combat vehicles and weapon systems to create a fully integrated real-time collective task training environment. This trainer will allow soldiers to repetitively practice techniques too hazardous, time-consuming and expensive, if performed on real equipment. These trainers enhance realism and allow soldiers and units to learn tactical combat lessons on maneuver, command and control and improved teamwork for increased survivability.

CCTT is a training system designed to support training of collective, combined arms tasks for Armor and Mechanized Infantry units from Platoon through Battalion Task Force level (both active and reserve). CCTT development and fielding is in response to a HQDA-approved Training Device Requirement (TDR).

B. Program Management/Management Oversight: CCTT is managed by the Program Manager for Combined Arms Tactical Trainer (PM-CATT); US Army Simulation Training and Instrumentation Command (STRICOM); US Army Materiel Command (AMC).

This project uses Integrated Project Teams approach. CCTT was developed using an IPT approach. A spiral development was performed with the Materiel Developer, User, Testers, Contractor, and Sub-Contractors working as an Integrated Development Team in Orlando, FL. Several IPTs were formed to address specific development aspects of the project as well as IPT/Concurrent Engineering Teams to manage cross-IPT issues and processes. Development testing was accomplished with the same IPT approach.

CCTT used Earned Value Management (EVM) throughout the development. The Contractor submitted Cost Performance Reports identifying Budgeted Cost of Work Scheduled (BCWS), Budgeted Cost of Work Performed (BCWP), Actual Cost of Work Performed (ACWP), variances and explanation of variances. The PM met frequently with the contractor to address cost issues throughout the development phase. The Firm Fixed Price (FFP) contract for full rate production will not require EVM reporting; however, the Prime Contractor will be using EVM internally.

C. Contract Information: Naval Air Warfare Center – Training Systems Division Contract Office, Orlando, FL 32826.

Contract Name: Close Combat Tactical Trainer (CCTT)

Contract Number: N61339-93-C-0004 (Signed: 30 November 1992) Prime Contractor: Lockheed Martin Information System Division

City/State: Orlando, Florida

Type of contract: The development phase of the CCTT system utilized a Cost Plus Award Fee (CPAF) contract structure. Low Rate Initial Production is a Fixed Price Incentive Fee (FPIF) contract with EVM reporting requirements. Full Rate Production (FRP) is a Firm Fixed Price (FFP) contract.

The contract for development and production is a hybrid of Cost Plus Award Fee (CPAF), Cost Plus Incentive Fee (CPIF), and Time and Materials (T&M) clauses. PM CATT selected a CPAF contract for the development phase based on the risks associated with the development and testing of the complex software that is the heart of CCTT.

Development and QUICKSTART production were not performance-based contracts. LRIP is performance-based contract but uses a Prime Item Development Specification based on waiver. FRP contract will be full performance based contract. In the current LRIP contract the contractor shall provide the necessary resources, equipment and facilities to modify, fabricate, verify, deliver and install CCTT systems that meet the performance criteria specified in the 116865 Prime Item Development Specification (PIDS).

- **D.** Architecture and Infrastructure Standards: CCTT is a Distributed Interactive Simulation (DIS) based system which uses standard DIS Protocol Data Units (PDU) for communication in accordance with Institute of Electrical and Electronic Engineers (IEEE) Standard 1278. CCTT will migrate to High Level Architecture (HLA) Compliance. As such, CCTT will comply with the Modeling and Simulation requirements of the JTA. CCTT is an open, ADA based Virtual Simulation system. It utilized the principles of COE, but is not based on reuse of COE components. The CCTT is a complex simulation of equipment, behaviors, and environments not currently addressed as components of the DII COE. Hardware requirements are included in this funding. Information/data transport, to meet system requirements and equipment transportation, are being met by the Prime contractor. CCTT has no direct dependencies. It uses COTS and custom items. The contractor developed make/buy analyses for the system components and utilized COTS to the maximum extent possible. Items such as the fiberglass mockup of a weapon system are not available as COTS.
- **E. Program Highlights:** Research and Development Engineering and Manufacturing Development phase of the program is concluding. Low Rate Initial Production (LRIP) is on schedule and under target cost. Full Rate Production (FRP) is on schedule.

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F. Financial Basis for Selecting the Project:

				Dollars in M	Iillions		
	Sunk Costs	FY00	FY01	FY02	FY03	FY04-N	Total
APB Total Resources by FY							
Total Resources by FY							

The program is reflected in a revised APB that was approved on 13 Dec 1998. It is based on the Army Cost Position established at the Milestone III ASARC approval in Nov 98. The revised APB reflects the following:

Base Year \$ (FY92)	<u>Objective</u>	<u>Threshold</u>	Objective - Then Year \$
Total RDTE	\$265.3M	\$270.4M	\$289.3M
Total Procurement	\$523.9M	\$541.9M	\$641.9M
Total Milcon	\$45.9M	\$52.8M	\$52.1M
Total O&M	\$812.7M	\$894.0M	\$1188.3M

- 1. Cost/benefit. A Cost and Training Effectiveness Analysis (CTEA) was prepared in May 91 as part of the MS I/II decision.
- 2. Analysis of alternative options. Alternative options compared in the CTEA were the current training strategy, improvements to SIMNET-T, fielding a degraded version of CCTT, incorporating embedded training devices and fielding fully capable CCTT.
- 3. Underlying assumptions. A T1/T2 readiness level was programmed for the battalions utilizing CCTT. This equates to 800 OPTEMPO miles per tank per year for the AC and 288 OPTEMPO miles per tank per year for the RC in FY99.

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4. Estimate of Risks. Currently CCTT is a low risk system.

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

Baseline Information: Funding established in FY91

	Cum total FY 1998 and Prior	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total
B. Previous Balance:			<u>.</u>	<u>.</u>		•	
Cost Goals (\$M)							
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals (\$M)	384.8	124.1	110.2	117.9	65.9	153.2	956.1
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals (\$M)	384.8	124.7	95.7	111.9	66.3	135.5	918.9
Schedule Goals (months)	0	.6	-14.5	-6.0	4	-17.7	-37.2
Fixed Sites							
Ft. Hood #1	Aug 98						
Ft. Knox	Feb 99						
Ft. Benning	Jul 99						
Ft. Stewart		Mar 00					
Ft. Hood #2		May 00					
Ft. Carson			Jan 01				
Ft. Riley			Jul 01				
USAREUR				Feb 02			
Ft. Lewis				Mar 03			
Korea				Jun 02		·	
Mobile Sites scheduled (12) A	Aug 98/ Jul 99	Jul 00	Jul 01	May 02	Sep 02		

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E. Variance from Baseline Goals:							
Cost Goals (\$M)	0	6	6.7	11.1	12.3	-11.1	18.4
Schedule Goals (months)							

Cost Goals – Current APB provides the CCTT Baseline at the total Program funding level.

- •: CCTT was rebaselined (APB change) in early years to return \$18M OPA to Army based on Image Generator quantity discount savings in the program. Current revision to baseline program is based on MS III ASARC decision and approved Army Cost Position.
- Congressional decrement in FY98 was replaced by the Army in FY00 and FY01. In addition, the Army increased the quantity of required simulators by 28 and provided the additional funding in FY02. Congressional decrement then occurred in FY99 causing a replan of deliveries. New simulator/digitization requirements extended the program through FY03.
- The revised APB is based on the approved Army Cost Position and includes visual system and processor upgrades after ten years of operation.
- Variance was briefed through the Training Mission Area reviews , which includes the TRADOC and FORSCOM users, Army Materiel Command and Department of the Army.

F. Corrective Actions:

Schedule Goals:

Milestones

Baseline (Milestone) Schedule	Last President's B	udget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Milestone I/II		Oct 91	
Technical Test (Fixed)		Dec 97	
Technical Test (Mobile)		May 97	
IOT&E (Fixed)		May 98	
IOT&E (Mobile)		May 98	
LRIP Award		Jan 98	
Milestone III		Nov 98	
First Unit Equipped	Feb 99/May 99	Feb 99/May 99	
Initial Operation Capability	Apr 99/Jul 99	Apr 99/Jul 99	

Army's desire to increase the quantity of simulators has extended the delivery schedule while the FY99 Congressional reduction has reduced the quantity procured in FY99.

CCTT is on schedule to the revised, approved Acquisition Strategy. No barriers to successful execution have been identified. The CCTT program uses an IPT process and has initiated a Partnering Relationship with the Contractor using the AMC Partnering Model. Issues are identified and resolved at the lowest level or raised to the next level for resolution in accordance with a Conflict Resolution procedure. The PM identifies program status and issues in a Monthly Army Acquisition Program Execution Report (AAPERS). Breach of APB thresholds is briefed to the AAE through the ASARC Management channels.

Performance Goals:

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Performance Goal Summary (Primary Performance Criteria from Revised APB):

System Open Architecture Simulated Weapons Replicate Actual

Popped Hatch Simulate Visual Aspects
Module Compartment +/- 2.5 Inches of Actual
Replicated Components +/- 0.25 Inches of Actual

Simulated Terrain 100 x 150 KM

Atmosphere Clouds, Rain, Fog, Haze, Clear Day

Dismounted Infantry
Semi- Automated Force
Capabilities
Scout Section, Infantry Squad, Platoon HQ
Individual Platform to Battalion Size Units
Both Friendly and Threat Tactical Doctrines

Availability 90%

Currently meeting goals.

CCTT has completed Hardware Design, Software Development and Integration. Technical Testing of the system is complete. Formal IOT&E ended on 15-May 98. LRIP has been approved and awarded and delivered ahead of schedule. Production efforts are on schedule.

The CCTT baseline is the APB for Cost, Schedule, and Performance. The only significant performance variance from the original APB is in Mean Time Between Failure (MTBF). The user has reassessed the required MTBF with HQDA assistance. A formal requirement change has been approved. The new requirement specifies a 90% availability requirement versus the reliability component availability as this better reflects the users need given the use and support structure for CCTT. The latest APB revision contains this baseline change. CCTT is meeting the availability requirement, in an operational environment (3 Fixed Sites and 4 Mobile configurations.

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There are no identified barriers to meeting CCTT performance requirements. Where applicable, the PM and TRADOC Systems Manager address requirements versus technology and funding. Where applicable a CAIV is used to determine the course of action. There are no outstanding performance issues or deviations from the baseline other than the requirement change from MTBF to Availability.

G. Year 2000 Special Information:

Y2K Phase – Completed

	Previous President's Budget	Current Submission
Date of Accomplishment		09/10/98
Funding Estimate by Phase		
Estimate time that for full Y2K Compliance		09/10/98

Description Information:

Initiative Name and Acronym: <u>Global Combat Support System-Army (GCSS-Army)</u> Initiative Number: 5070
Project Activity/Mission Area: Other Communication Infrastructure Activities
Date Project was initiated: MS 0/I/II 28 May 97 as Integrated Combat Service Support System (ICS3).
General Officer Working Group (GOWG) changed name to GCSS-Army December 1997
Date of Last Acquisition Decision Memorandum (ADM): MS O/I/II 28 May 97
Project is in Milestone II (Tier I), Approval Dated: 28 May 97, Design & Engineering & Development Phase as of current review.
Project Status: New Ongoing Ongoing
Information Technology Project: Yes No
Is this project a financial management system? Yes \sum No \times
If yes, what percentage is financial%
Current Year 2000 Phase: Validation (New Development)
Year 2000 System Status as of January 20, 1999 (non-compliant, compliant, funding available): Compliant; New development, post
2000. Being designed and developed Y2K compliant.
Projected Date for Completion: 10/31/2003
Mission Critical Status: Yes
Standard System Status: Yes
Organizational Information/Program Manager: COL Stephen Broughall, PM GCSS-Army, (804) 734-7665, FAX (804) 734-7140,
ATTN: SFAE-PS-RS, 800 Lee Ave, Ft. Lee, VA 23801-1718
Organizational Point of Contact: Maureen Jones, PEO STAMIS, (703) 806-3615, FAX (703) 806-4289

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Global Combat Support System-Army (GCSS-Army)

Project Activity/Mission Area: Functional Area Applications Area/Logistics

	Dollars in Millions						
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total
<u>Planning</u>							
Total Dev Mod							
Full Acquisition							
OP	A 1.0	4.0	27.6	30.0	52.1	149.1	263.8
OM	A 19.7	17.3	39.5	0.0	0.0	0.0	76.5
RDTI	0.0	0.0	0.0	72.0	92.5	199.4	363.9
MPA	0.0	0.0	0.1	0.1	0.1	0.3	0.6
Total Dev Mod	20.7	21.3	67.2	102.1	144.7	348.8	704.8
Current Services/Maintenance							
OM	A 0.1	0.3	6.1	10.9	16.9	47.6	81.9
OMA	R 0.0	0.0	0.0	0.0	.9	2.2	3.1
OMN	G 0.0	0.0	0.0	0.0	.6	1.6	2.2
Total Current Service	0.1	0.3	6.1	10.9	18.4	51.4	87.2
Total Resources by FY	20.8	21.6	73.3	113.0	163.1	400.2	792.0

*FY98-99 GCSS-Army Tier I is funded from dollars in the existing legacy STAMIS. Dollars were realigned to GCSS-Army in the

POM from the existing legacy STAMIS beginning in FY00.

Part II. Justification:

Provide Requested Justification Materials

A. Description/Performance Characteristics:

Global Combat Support System-Army (GCSS-Army), formerly called Integrated Combat Service Support System (ICS3), is the business/tactical automation enabler for the total Army Combat Service Support (CSS) mission area and constitutes the Army portion of the Global Combat Support System. GCSS-Army supports the CSS functions of manning, arming, fixing, fueling, moving and sustaining soldiers and their systems. Development and fielding will follow an incremental acquisition strategy combining development with incremental fielding of capability packages. GCSS-Army will integrate CSS functionality to support the Revolution in Military Logistics in support of Joint Vision (JV) 2010 and Army 2010 and beyond. GCSS-Army will consist of six major modules – Supply/Property, Maintenance, Ammunition Supply, Supply Support, Integrated Materiel Management (IMM) and Management. GCSS-Army will be implemented in 3 tiers, formerly called phases. Tier I will include functionality of existing retail logistics STAMIS. Tier II will integrate the wholesale and retail levels of CSS. Tier III will implement all required interfaces with AIS of the Joint community, national sustaining base and applicable allied systems.

The requirement for GCSS-Army Tier I is a seamless, integrated and interactive family of modules. These modules will provide the Army with a state-of-the-art automation and communication capability. They will be compliant with the Joint Technical Architecture-Army (JTA-A) requirements and will run on Commercial-off-the-Shelf (COTS) hardware. They will use a relational database management system to insure that users may create their own Ad Hoc management reports when required.

These GCSS-Army modules will include a "common look and feel," Graphical User Interface (GUI) to minimize the time and costs required for training. They will also use common software components where possible to minimize software maintenance costs and

time required for implementation of subsequent software releases. Maximum flexibility and ease of use will be included in terms of data transfer/communications capabilities. This will include the ability to send data via communications networks as well as via modem or floppy disk transfer.

GCSS-Army is based on an Operation Desert Shield/Storm Finding. It was Issue Number 5.0 in the 27 May 1992 Total Distribution Action Plan. The issue was "lack of a multifunctional STAMIS using a common shared relation database". The objective fix is to "develop and field a multifunctional STAMIS using a Shared Relational Database that provides shared access for all functional CSS systems". The Mission Needs Statement, approved 23 May 1995, established a need for single, integrated and interactive CSS automated and communication system. The Operational Requirements Document, approved 5 February 1997, states GCSS-Army will be the Army's seamless, integrated modular and interactive CSS information management and operations system at all force support levels.

GCSS-Army is the Army's solution to logistics STAMIS software modernization through the use of Rapid Application Development, Business Process Reengineering, integration and data modeling. GCSS-Army will provide near "real time" integrated CSS information on a single platform and feature horizontal/vertical integration of data across CSS domains. Upon completion of fielding in FY03, GCSS-Army Tier I will replace thirteen (13) legacy system baselines: Standard Army Maintenance System (SAMS), Standard Army Ammunition System (SAAS), Standard Army Retail Supply System (SARSS) and Unit Level Logistics System/Standard Property Book System-Redesign (ULLS/SPBS-R) and Integrated Logistics Analysis Program (ILAP). Until that time, these legacy systems will continue to be maintained at minimally accepted levels.

The Information System Cost and Economic Analysis (ISCEA) for Milestone 0/I/II included a cost benefit analysis. While there were numerous productivity improvement benefits noted, the cost analysis did not identify hard dollar or manpower savings. The ISCEA, including the benefits, will be updated prior to Milestone III. This is discussed further in Section F.

B. Program Management/Management Oversight:

The process owner is Deputy Chief of Staff for Logistics (DCSLOG). GCSS-Army is managed by Project Manager, Global Combat Support System – Army (GCSS-Army). PM, GCSS-Army is assigned to the Program Executive Officer (PEO), Standard Army 5070/ GLOBAL COMBAT SUPPORT SYSTEM - ARMY– IT Capital Investment Exhibit (IT-300b) Page 4 of 12

Management Information Systems (STAMIS) who reports directly to the Army Acquisition Executive (AAE). The contracting office for the GCSS-Army acquisition is the Veterans Administration.

Integrated Process Teams were used to formally manage the acquisition process and continue to be used for requirements definition through the Joint Application Development (JAD). The software developers hold numerous JAD meetings bringing the users to a central location, discuss user needs and develop system requirements.

The Army Corporate Information Officer (CIO) has oversight of the GCSS-Army project. The acquisition Program Baseline (APB) documents all cost, schedule, and technical performance criteria. Performance goals are defined as task performance of Mission Essential Tasks (METs) and non-METs. Controls are in place to monitor the technical performance of matrix support organizations, including periodic reviews at all management levels. Reports are used to monitor program cost and schedules. Development, system qualification, and operational and evaluation testing is conducted. The Test and Evaluation Master Plan (TEMP) established management oversight over the testing program.

GCSS-Army has developed a Risk Management Plan that identifies risk descriptions, their initiating events and appropriate mitigation/contingency strategies. The risks are ranked using the probability of occurrence, impact and timeframe. Reviews are conducted regularly to review, add or close risks.

C. Contract Information:

For software development the Government Research Corporation, Inc. (GRCI), McLean, Virginia is the prime contractor for GCSS-Army. Hardware and Commercial Off the Shelf (COTS) software will be purchased from the STAMIS Computer Contract II (SCC II) with Government Technology Services, Inc. (GTSI), Chantilly, Virginia.

The SCC II contract is a competitive Indefinite Delivery Indefinite Quantity (IDIQ) contract and will be the primary acquisition vehicle. PM GCSS-Army evaluated multiple vendors based on their proposed strategies to develop an automated system to achieve the GCSS-Army objectives. The technical merits of several proposed vendor solutions coupled with the demonstrated past

performance of each vendor on projects of comparable size and complexity to the GCSS-Army effort were also evaluated. Based on this evaluation, GRCI was selected as the prime integrator whose proposed solution provided the best value to the government in terms of net projected cost of their proposal, its conformance to DoD and industry technical standards and its ability to meet the defined GCSS-Army functional requirements.

Since all Non-Developmental Item (NDI) hardware and COTS software is JTA compliant, performance-based contracting does not apply for the SCC II contract. The GRCI contract is performance-based and the performance goals include:

- Support life cycle processes from initial acquisition through logistic support to deactivation.
- Modernize processes for the capture, management, interchange and processing of acquisition and logistic technical information.

D. Architecture and Infrastructure Standards:

OSD has issued a directive that all new C4I systems and other systems that interface to C4I systems shall be in compliance with the Joint Technical Architecture (JTA). The JTA in turn mandates use of the Defense Information Infrastructure Common Operating Environment (DII COE). Reference is specifically made to C4ISR Architecture framework, CISA-000-104-96, Version 1.0, 7 June 1996, C4ISR Integration Task Force (ITF) Integrated Architectures Panel. This document presents an innovative definition of levels of interoperability. The DII COE adopts these levels of interoperability and maps DII compliance to interoperability level. The COE defines eight progressively deeper levels of integration for the runtime Environment Category. These levels are directly tied to the degree of interoperability achieved. True integration begins at Level 4. GCSS-Army is being designed to be initially compliant to achieve Level 6 integration as platform-specific tools and test environments are put in place by DISA.

All hardware requirements are included in funding.

GCSS-Army satisfies transport requirements by utilizing existing Army infrastructure.

Compliant as designed or currently operating. GCSS-Army will be compliant with mandates of the Joint and Army Technical Architecture (JTA/ATA) and the Defense Information Infrastructure (DII) Common Operating Environment (COE). GCSS-Army will be initially compliant with Level 6.

GCSS-Army will be a mix of COTS, GOTS and custom. The custom components are required to implement Army specific business rules and training requirements.

E. Program Highlights:

The GCSS-Army Fort Hood Test Facility opened in May 99 and provides testing in "Army Warfighting Experiment (AWE) like" environment.

Software Requirements Review (SRR) was held for the Integrated Materiel Management Module (IMM) and Management Module in June 1999.

GCSS-Army is currently completing the detailed requirements analysis for the SPR and Maintenance modules. More than 1600 requirements have been decomposed to the elementary business function. Portions of the item accountability requirements are in the early stages of design and build.

GCSS-Army completed a successful OTRR for the SPR release.

F. Financial Basis for Selecting the Project:

Dollars in Millions

	Sunk Costs	FY00	FY01	FY02	FY03	FY04 - N	Total
APB Total Resources by FY	42.4	74.1	78.2	114.8	114.0	1403.4	1827.0
Rebaseline Total Resources by FY	NA						

Total life-cycle cost is based on 7 Sep 1997 Information System Cost and Economic Analysis (ISCEA).

New ISCEA is scheduled for completion June 2000 in conjunction with Milestone III.

The ISCEA for a Milestone O/I/II included a cost benefit analysis; however, this cost benefit analysis did not identify tangible hard dollar or manpower savings, but there were numerous intangible economic benefits.

The ISCEA for Milestone 0/I/II considered three alternatives – 1) Basecase - maintaining current baseline (\$578M FY97 dollars); 2) upgrade existing systems (\$2354.8 current dollars); and 3) GCSS-Army (then called ICS3) (\$1827.2 current dollars). Over the life cycle, the implementation of Alternative 3, GCSS-Army, is less expensive than Alternative 2. It comes closest to solving the problems of the CSS community in that it is being designed to be a seamless, integrated, modular and interactive system. The ISCEA Conclusion stated the benefits analysis could not identify any "hard-dollar" savings with either Alternative 2 or Alternative 3 when compared to the Basecase alternative. In addition, there were no manpower savings that could be attributed to either Alternative 2 or Alternative 3. Both alternatives achieve Army Technical Architecture (ATA) compliance. In terms of "Other Economic Benefits", Alternative 3, GCSS-Army, is more in line with the existing and future Doctrine, Training, Leader Development, Organization and Materiel Changes (DTLOM).

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

Baseline Information:

Army Major Automated Information Systems Review Council (MAISRC) approved GCSS-Army Milestone 0/I/II for Tier I and Milestone 0 for Tiers II and III by Acquisition Decision Memorandum 28 May 1997.

FY98-99 GCSS-Army, Tier I, is funded from dollars in the existing legacy STAMIS. Dollars were realigned in the FY00-05 POM from the existing legacy STAMIS beginning in FY00 for GCSS-Army.

	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total
B. Previous Balance:	·						
Cost Goals (\$M)	20.8	21.6	74.0	80.4	114.2	309.7	620.7
Schedule Goals (milestones)							
C. Baseline:	·						
Cost Goals (\$M)	20.8	21.6	74.0	80.4	114.2	309.7	620.7
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals (\$M)	20.8	21.6	73.2	113.0	163.1	401.3	793.2
Schedule Goals (months)							
E. Variance from Baseline Goals	:						
Cost Goals (\$M)	0.0	0.0	-0.8	32.6	48.9	91.6	172.5
Schedule Goals (months)							

Variance from FY01 Budget Estimate Submit: The FY 2000 funding decreases reflect year of execution funding adjustments. The FY2001-2005 increases represent additional funding to support the New Army Vision/Transformation.

F. Corrective Actions:

Schedule Goals:

Milestones

Baseline (Milestone) Schedule	Last President's Bu	udget (Month Year)	Current Submission (Month Year)		
	Approved	Achieved	Approved/Estimated		
Army Milestone O/I/II Tier I	3 rd Qtr FY97	3 rd Qtr FY97			
Army Milestone O Tiers II/III	3 rd Qtr FY97	3 rd Qtr FY97			
Army Milestone I Tier II	2 nd Qtr FY99		TBD		
Army Milestone III Tier I (SPR Module)			4th Qtr FY00		
Army Milestone I Tier III	2 nd Qtr FY00		TBD		

Performance Goals:

The Acquisition Baseline states functional requirements for GCSS-Army Tier I:

- Fully mission-capable 90 percent of the time. Ninety percent is a key performance parameter (KPP) threshold value minimum.
- Provide a windows-like graphical user interface (GUI) environment allowing execution of multiple functional module tasks at a single screen display.
- Allow tailoring of the system with different functional modules to accommodate operational needs of the user.
- Allow no more than 10 degradation in the end user workstation response time while operating in a multitasking environment.
- Process data and perform calculations with 100% accuracy.
- Survivability withstand enemy combat activity.

- Transfer data from within a functional application window without user intervention. Data transmitted will be 100% accurate. Transmission and receipt of data will be completed 95% of the time.
- Interfaces system will be designed to operate with existing and emerging COE.
- Transmit backup data files from user sites to a supporting data storage site. Allow designated storage sites to transmit user data files needed to restore the system.
- Provide software that will allow for installation, operation and fault diagnosis by trained users.
- Permit unit personnel to set up, configure and reconfigure hardware and software and make the communications interfaces for the system.
- Wartime system will meet all functional management requirements for performance in the theater of operations.
- Security system information processing will meet the requirements of the Privacy Act of 1974 and the security requirements established in AR 380-19.
- Data standardization system will meet the data standardization requirements as prescribed in AR 25-9 to the maximum extent possible.

Risks: The Information Technology sector is highly volatile for employee turnover.

Risk Mitigation: The PM constantly assesses personnel to assure continuity of services.

G. Year 2000 Special Information:

Y2K Phase: Validation/New Development Post 2000

	Previous President's Budget	Current Submission
Date of Accomplishment	02/28/2000	10/31/2000
Funding Estimate by Phase		
Estimate time that for full Y2K Compliance	02/28/2000	10/31/2000

Y2K compliance has been accomplished within project funding.

There have been no known opportunity costs in terms of cost, schedule and performance due to Y2K requirements. Y2K compliance has between integrated into the GCSS-Army program structure, which minimizes the direct cost of such compliance.

Description Information:

Initiative Name and Acronym: Global Command and Control System – Army (GCCS-A)
Initiative Number: 0881
Project Activity/Mission Area: Functional Area Applications Area/Command and Control
Date Project was initiated: Jul 95
Date of Last Acquisition Decision Memorandum (ADM): 6 Dec 94
Project is in III Milestone, Approval Dated: 2 Dec 1994, Production and Deployment Phase as of current review.
Project Status: New Ongoing X
Information Technology Project: Yes No
Is this project a financial management system? Yes \sum No \subseteq
If yes, what percentage is financial%
Current Year 2000 Phase: Completed/Renovation
Year 2000 System Status as of August, 1999 (non-compliant, compliant, funding available): compliant
Mission Critical Status: Yes
Standard System Status: Yes
Organizational Information/Program Manager: Organizational POC: Annmarie Bell, Program Analyst, GCCS-A, DSN 987-2082, Comm (732) 427-2082, FAX DSN 987-2031; Product Manager: William Smith, Product Manager, GCCS-A, DSN 654-2867, Comm (703) 704-2867; Project Manager: COL Stephen C. Horner, Project Manager, Army Tactical Command and Control Systems (PM ATCCS), DSN 992-4041, Comm (732) 532-4041, PM ATCCS, ATTN: SFAE-C3S-AT, Bldg. 455, Fort Monmouth, NJ 07703-5405.

Part I. Summary of Spending for Project Stages:

Project Activity/Mission Area: Functional Area applications Area/Command and Control Project Name and Acronym: Global Command and Control System - Army (GCCS-A)

	Dollars in Millions						
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total
Planning							
Total Dev Mod	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Full Acquisition							
OPA	64.1	20.4	12.9	10.3	7.7	24.8	140.2
RDT&E	66.1	17.5	11.5	14.2	14.1	26.4	149.8
MPA	1.7	.3	.4	.4	.5	1.2	4.5
Total Dev Mod	131.9	38.2	24.8	24.9	22.3	52.4	294.5
Current Services/Maintenance							
OMA	215.0	44.6	42.2	35.1	35.0	108.4	480.3
MPA	2.7	1.6	1.3	1.4	1.4	4.6	13.0
Total Current Service	217.7	46.2	43.5	36.5	36.4	113.0	493.3
Total Resources by FY	349.6	84.4	68.3	61.4	58.7	165.4	787.8

Part II. Justification Provide Requested Justification Materials:

A. Justification:

The mission of the Global Command and Control System-Army (GCCS-A) is to provide automated command and control tools for Army Strategic and Theater Commanders to enhance warfighter capabilities throughout the spectrum of conflict during joint and combined operations in support of the National Command Authorities. GCCS-A provides the Army's interface to Joint Staff Global Command and Control System (GCCS) program. GCCS-A is the Army's Strategic and Theater Command and Control (C2) System, primarily providing readiness information, planning, mobilization and deployment capability for the strategic commanders; and providing force employment (receipt of forces, intra-theater planning, readiness, force tracking and other theater level mission applications) for the theater commanders.

GCCS-A is being implemented in accordance with the GCCS concept of Defense Information Infrastructure Common Operating Environment (DII COE) and the Army Battle Command System (ABCS) Operational Requirements Document (ORD). The GCCS-A is the integration of software, hardware and communication architecture supporting strategic and tactical environments. The software development requirements for GCCS-A will be satisfied through a single systems engineering and integration contract which was awarded in December 1994. The intent is to field an integrated command and control (C2) system that provides standard, modular, system support and application software support capable of providing a "tailored" set of functional applications and compatible, integrated exchange of data both horizontally and vertically throughout the Army hierarchy. This will accommodate a flexible, interoperable C2 system that can be tailored for various levels of command and will ensure connectivity. GCCS-A will support operations during peace as well as war including contingency and natural disaster operations. Hardware fielding efforts through FY 00 will focus on equipping all Army-managed worldwide C2 sites. Beginning in FY 01, emphasis will be on upgrading previously fielded hardware to ensure consistency and compatibility with current technologies.

GCCS-A was the result of a Migration Plan that was selected as the most cost-effective solution to evolve, replace and/or migrate the AWIS and STACCS systems as well as implement evolving ORD requirements.

The requirement was expanded to include the migration of USFKs TACCIMS functionality.

GCCS-A evolved from the Army World Wide Military Command and Control System (WWMCCS) Information System (AWIS) and is driven by the Joint Staff Global Command and Control System (GCCS) initiative. The Army followed the Joint Staff directive to implement a common GCCS. GCCS-A develops additional Army required functionality that is DII COE compliant.

GCCS-A is the Army's vehicle for implementing GCCS at Army managed sites. This program funds for the operations and maintenance of GCCS joint applications and hardware at Army locations to include FORSCOM, USAREUR, USARPAC, USFK, MTMC, ARCENT, the Army Operations Center (AOC) at HQDA, and two CINCs, EUCOM and SOUTHCOM. This program also provides GCCS capabilities at the four Army Corps. Support includes software licensing, hardware maintenance, training, and C2 infrastructure as well as all related OMA C2 support.

In addition, GCCS-A satisfies Army required C2 functionality that is DII COE compliant and is interoperable with GCCS. COTS are used to the maximum extent possible and reuse candidates are evaluated and adapted wherever possible prior to new development.

The work processes have been redesigned to reduce cost and improve effectiveness.

B. Program Management:

Army Acquisition Executive: Paul J. Hoeper

Program Executive Office Command, Control and Communications Systems (PEO C3S): BG Boutelle

Project Manager, Army Tactical Command and Control Systems (PM ATCCS)

Product Manager, Global Command and Control System - Army (GCCS-A)

Contracting Office, CECOM Acquisition Center, Washington Operations Office (CACWOO)

Management Approach, Integrated Product Team (IPT)

Earned value is used to monitor the achievement or deviation from goals during the life cycle of the project.

C. Contract Strategy:

The prime contractor is Lockheed-Martin Corporation, Springfield, Virginia, Contract No. DAHC-95-D-004, Hybrid - CPAF, FFP and IDIQ.

A hybrid contract (Cost-Plus-Award Fee, Firm Fixed Price and Indefinite Delivery/Indefinite Quantity was awarded on a competitive basis, judged to provide the best value to the Government.

- Technical Management
 - Support of Integrated Product Team (IPT)
 - Contractor's support of the Contract Execution IPT in maintaining Delivery integrity. Contractor's candid/open
 assessment of progress, issues and recommendations for project improvements to support an informed IPT decision
 process.
 - Y2K Compliance
 - All new and updated software is developed Y2K compliant. All existing software has been Y2K tested and certified compliant by the PEO C3S. All fielded baselines have successfully undergone operational evaluations. All specified contract requirements are in place and contingency plans have been validated and approved.
 - GCCS-A and Army Battle Command System (ABCS) Deliveries
 - Contractor's ability to prepare for and conduct Integrated Process Reviews (IPRs), design, and program reviews.
 - Integrated Logistics Support
 - MANPRINT
 - Deliverables specified in the contract CDRLs, such as the System MANPRINT Management Plan, and the
 necessary coordination and representation required to complete and to update these deliverables and to resolve
 emerging system MANPRINT issues.
 - Training

- Deliverables specified in the contract CDRLs, such as the Training Course Control Document, Lesson Plans,
 Trainee Guides, and the new Equipment Training Plan and the necessary coordination and representation required to complete and update these deliverables and resolve emerging training issues.
- ILS Baseline Activities
 - Contractor's ability to integrate ILS disciplines into product development and delivery processes to produce supportable products with few or no ILS-related end user complaints.
- Maintenance
 - Maintenance software that produces no new Priority 1 or Priority 2 Software Change Request (SCRs).
- Computer Software Configuration Item (CSCI) and System Testing
- Contractor's ability to plan and schedule test activities.
- CWO 28
 - Contractor's ability to plan, schedule for, and perform fielding and installation of GCCS-A hardware/software to
 include planning for and conducting site surveys prior to system fielding; and support for demonstration and exercise
 events sponsored/directed by HQDA, PEO C3S, STCCS or GCCS-A.

Cost

- Contractor's ability to establish discipline with all personnel in recording their charges for work completed to include travel charges.
- Contractor's ability to be responsive and innovative in avoiding and minimizing support costs so that the Government realizes the best value for the dollar.
- Contractor's ability to apply earned value management in providing a measure of progress against their plan of work.
- Contractor's ability to resolve cost variances as reported in the Cost Performance Report (CPR).

• Contractor's ability to instill discipline in developing timely and accurate estimates to complete as reported in the Cost Performance Report.

Schedule

- All schedule variances reflected in the CPR will be assessed on the contractor's ability to quickly pursue corrective actions and plans for recovery.
- Contractor's ability to instill discipline in statusing program schedules and providing timely integration into the cost management system.

The contract is performance based. The system successfully underwent a Post System Acceptance Review (PSAR) and an Integrated Baseline Review (IBR). Performance goals are centered around deliveries of software packages.

D. Architecture and Infrastructure Standards:

- ✓ The contract IPT manages interoperability requirements by approving all procurement and delivery of hardware and software.
- ✓ The system is currently DII COE Level 5 compliant and taking steps to achieve Level 6 compliance by FY02 and Level 8 by FY04.
- ✓ The system will comply with Joint Technical Architecture (JTA) and JTA-Army.
- ✓ The application is riding the SIPRNET.
- ✓ The program uses the SIPERNET and associated infrastructure, which is augmented by hardware purchases. This program to provide needed robustness to meet program requirements.
- ✓ Hardware requirements are included in the funding.
- ✓ Custom components are only utilized when COTS or GOTS is not available.

E. Program Highlights:

- ✓ Successful transition of Army WWMCCS Information System (AWIS) in 1996.
- ✓ First Army program to achieve COE compliance.

- ✓ Successful transition of USAREUR Standard Theater Automated Command and Control System (STACCS) to GCCS-A in 1998. System operationally in use in support of Balkan missions.
- ✓ Successful transition of USFK Theater Automated Command and Control Information Management System (TACCIMS) to GCCS-A in 1999.
- ✓ GCCS-A currently installed in 11 commands with a network that supports over 2000 workstations and over 3000 users. GCCS-A will be fielded to two Army Corps in FY01.

F. Financial Basis for Selecting the Project:

No APB exists for GCCS-A. This was an HQDA directed program. The Defense plan, Command, Control, Communications, Computers, and Intelligence (C4I) identified the need for the service components to continue to develop a family of strategic C4I systems, based on an open architecture design, to support strategic and theater forces. The Global Command and Control System - Army (GCCS-A) is the Army's implementation of GCCS to meet the Defense plans. GCCS-A provides Global Command and Control System (GCCS) capabilities and required Army unique functionality to Army elements at the theater and strategic levels. GCCS-A consolidates the capabilities and application programs developed for the Army World Wide Military Command and Control System (WWMCCS) Information System (AWIS), the Standard theater Army Command and Control System (STACCS), the Theater Army Command and Control Information System (TACCIMS), and the Echelons Above Corps (EAC) portions of the Combat Service Support Control System (CSSCS) on a single platform. DCSOPS (DAMO-FDC Memo, dated 22 Jul 94) directed the consolidation of the existing systems of AWIS, STACCS and CSSCS (EAC) into the GCCS-A, which will also be the strategic piece of the Army Battle Command System (ABCS). The GCCS-A program represents the implementation of that direction.

Funding also includes operations and maintenance of GCCS and Command and Control (C2) activities at key Army locations to include two CINCS (EUCOM and SOUTHCOM), and four Army Corps worldwide.

Dollars in Millions

	Sunk Costs	FY00	FY01	FY02	FY03	FY04-N	Total
Total Resources by FY*	418.9	69.4	61.8	59.2	60.5	525.7	1,195.0
Total Resources by FY	418.9	69.4	61.8	59.2	60.5	525.7	1,195.0

^{*}Not an actual APB, but reflects total Life Cycle Costs associated with GCCS-A to date.

Part III. Cost, Schedule, and Performance Goals.

A. Description of Performance based system(s):

GCCS-A implemented the Cost, Schedule and Performance System criteria to monitor any achievement, deviation and goals during the planning, acquisition and use of the product. The contractor was subjected to a Post Acceptance System Review (PSAR) and the results were favorable and the review was successfully closed. An Integrated Baseline Review (IBR) was successfully conducted ascertaining that processes were in place to ensure that the earned valued system of performance management was adequately implemented to ensure that controls over program execution produced useable and timely data pertaining to GCCS-A development.

Baseline Information: The project was established in FY95.

Management Oversight: Program management utilizes a combination of joint contractor/government IPT to ensure program priorities are in line with contract funding. The IPT is supported by detailed monthly Cost Performance Reports (CPR) and Contract Funds Status Reports (CFSR). Variance explanations are provided as requested by government program Business Management Division.

PMO	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total
B. Previous Balance (01 BES):							
Cost Goals (\$M)	219.5	82.4	69.8	61.8	59.2	170.9	663.6
Schedule Goals (milestones)							
C. Baseline (00 PB Position):							
Cost Goals (\$M)	211.8	88.8	68.7	57.9	55.8	153.2	636.2
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals (\$M)	219.5	84.4	68.4	61.5	58.8	165.6	658.2
Schedule Goals (months)							
E. Variance from Baseline Goals	:						
Cost Goals (\$M)	7.7	-4.4	-0.3	3.6	3.0	12.4	22.0
Schedule Goals (months)							

F. Corrective Actions: Not Applicable

Schedule Goals: Milestones

Baseline (Milestone) Schedule	FY00 President's Bu	dget (January 1999)	FY01 Budget Estimate Submission (August 1999)
	Approved	Achieved	Approved/Estimated
Release Contract RFP	Apr 94	Apr 94	
GCCS-A MAISRC IPR	Oct 94	Oct 94	
GCCS-A Contract Award	Dec 94	Dec 94	
CP1 Initial Operational Capability (IOC)	Aug 96	Aug 96	
GCCS-A IPT/IPR	Oct 97	Oct 97	
Delivery 2 Complete	May 99	May 99	
Delivery 2 System of Record (SOR)	Sep 99	Sep 99	
Delivery 3 Complete			Mar 00/Mar 00
ABCS 6.1 Interoperability			Jun 00/Jun 00
First Digitized Division (FDD)			Nov 00/Nov 00
Interoperability			
Release Contract RFP			Nov 00/Nov 00
Award New GCCS-A Contract			Mar 01/Mar 01
Delivery 4 Complete			Jun 02/Jun 02

Performance Goals:

CP1 delivered on time and achieved Initial Operational Capability (IOC) in 4QFY96 (August)

Del 1 delivered on time in 1QFY98 (November) and achieved IOC in 3QFY98 (May)

Del 2 completed 3QFY99 (May)

Del 3 System of Record 2QFY00 (March)

G. Year 2000 Special Information:

Y2K Phase

	Previous President's Budget	Current Submission
Capability Package 1 (CP1)	Implementation	Complete
Date of Accomplishment		18 Dec 98
Funding Estimate by Phase		154
Estimate time that for full Y2K Compliance		18 Dec 98

GCCS-A CP1 completed the Implementation Phase on 18 Dec 98.

Y2K Phase

	Previous President's Budget	Current Submission
Delivery 1 (D1)	Implementation	Complete
Date of Accomplishment		10 May 99
Funding Estimate by Phase		35
Estimate time that for full Y2K Compliance		10 May 99

GCCS-A Delivery 1 (D1) completed the Implementation Phase on 10 May 99.

Y2K Phase

	Previous President's Budget	Current Submission
Delivery 2 (D2)	Implementation	Complete
Date of Accomplishment		5 May 99
Funding Estimate by Phase		35

Estimate time that for full Y2K Compliance	5 May 99
1	

GCCS-A Delivery 2 (D2) completed the Implementation Phase on 5 May 99.

Y2K Phase

	Previous President's Budget	Current Submission
Delivery 3 (D3)	Renovation	Renovation
Date of Accomplishment		31 March 2000
Funding Estimate by Phase		0
Estimate time that for full Y2K Compliance		31 March 2000

GCCS-A Delivery 3 (D3) is in the Renovation Phase (Development is Y2K compliant) with planned completion of 30 June 00. Implementation for the First Digitized Division at Fort Hood is scheduled for completion in Nov 00 after Validation in Oct 00. D3 is scheduled for fielding after 1 Jan 00. That plan remains in place. No early deployment planned.

Description Information:

Initiative Name and Acronym: Information Systems Security Program (ISSP)
Initiative Number: 0967
Project Activity/Mission Area: Related Technical Activities/Technical Activities
Date Project was initiated: Nov 1991
Date of Last Acquisition Decision Memorandum (ADM): N/A
Project is in N/A Milestone, Approval Dated: N/A, N/A Phase as of current review.
Project Status: New Ongoing 🖂
Information Technology Project: Yes No 🗌
Is this project a financial management system? Yes \sum No \times
If yes, what percentage is financial%
Current Year 2000 Phase: N/A
Year 2000 System Status as of January 20, 1999 (non-compliant, compliant, funding available): N/A
Projected Date for Completion: N/A
Mission Critical Status: N/A
Standard System Status: Yes
Organizational Information/Program Manager: Melody O'Brien, (703) 604-7578, Fax (703) 601-0742, HQDA, ATTN: SAIS-IAS,
2511 Jefferson Davis Highway, Arlington Va. 22202

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Information Systems Security Program (ISSP)
Project Activity/Mission Area: Related Technical Activities/Technical Activities

		Dollars in Millions						
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total	
Planning						F 1 2005		
Full Acquisition								
Current Services/Maintenance								
OMA	25.6	49.0	44.7	52.0	36.8	106.6	314.7	
OPA	27.3	44.7	69.0	41.4	39.2	87.2	308.8	
OMAR	.2	.8	1.6	1.7	2.1	7.5	13.9	
OMNG	0.0	.9	.9	.8	.6	1.5	4.7	
MPA	3.2	3.3	3.1	2.8	2.9	9.4	24.7	
RDT&E	11.4	14.7	15.2	8.1	8.8	29.2	87.4	
Total Current Service	67.7	113.4	134.5	106.8	90.4	241.4	754.2	
Total Resources by FY	67.7	113.4	134.5	106.8	90.4	241.4	754.2	

Part II. Justification:

A. Description/Performance Characteristics:

The Army's Information Systems Security Program (ISSP) has two major goals:

- Secure the Army portion of the Defense Information Infrastructure, and
- Secure the Digitized Force.

ISSP develops, procures and sustains Information Systems Security (ISS) hardware, software and techniques needed to ensure the protection of information and communication during all phases of military operations in all environments.

This program includes the VCSA directed Network Security Improvement Initiative, which integrates commercially available security technologies at all military communications gateways (in compliance with the Army CIO plan) to enhance network security Forcewide.

This initiative provides the capability of detecting system intrusions, alteration, and reacting to information warfare attacks in a measured and coordinated manner.

The ISSP automates key generation and distribution while supporting joint interoperability (Army Key Management System (AKMS)/Electronic Key Management System Tier 1).

Moreover, the ISSP provides System Administrator/Network Administrator training to assess and counter computer hacker attacks and training for Information Systems Security Managers/Officers to assist them in understanding their Information Systems Security responsibilities.

Program defends major Army Automated Systems both at the perimeter and in depth, to protect them from disruption caused by attacks originating at multiple entry points.

Operational support of this mission is provided by the Army Computer Emergency Team (ACERT), at Fort Belvoir, VA; with Regional Computer Emergency Response Teams (RCERT) being developed at Hawaii, Fort Huachuca, AZ, Korea, and 5th Signal Command in Europe.

- Public Key Infrastructure (PKI) is essential in order to achieve interoperability and standardized digital signatures and integrity checks.
- Mission to secure the Digitized Force consists of ensuring that vulnerabilities to Information Operations and Computer Network attacks within the Digitized Force are addressed and protected to the greatest extent possible.

ISSP provides the Warfighter, to the greatest extent possible, secure communications from the foxhole to the sustaining base. The capability of commanders to prepare, send, store, retransmit and acknowledge communications is a cornerstone of combat from ancient times to the present. The commander's capability to send timely and secure messages, to collect intelligence and reset the status of his forces (numbers, locations, dispositions) to garner facts about the adversary and to order engagements are all exploitable in the modern electronic battlefield. The ISSP addresses vulnerabilities and seeks to stay ahead of emerging technologies that could be used against our forces. The capability to provide voice/data confidentiality, data integrity, authentication, access control and non-repudiation are accepted security requirements addressed in ISSP.

B. Program Management:

There is no formal Program Manager (PM) or Executive Agent for ISSP. HQDA (ODISC4) manages the Army ISSP. NSA is the National Manager for INFOSEC. The Army Key Management System (AKMS) and Digitized Force project manager is PM Warfighter Information Network-Terrestrial (PM WIN-T) at Fort Monmouth, NJ. AKMS initiative uses Integrated Project Teams. The CECOM INFOSEC Branch does the INFOSEC R&D project management.

C. Contract Strategy:

INFOSEC products are primarily contracted through the National Security Agency (NSA). The contract offices for INFOSEC RDT&E and Network Security tools are Space and Systems Division and Special Projects Office respectively, Space and Terrestrial Communications Directorate, CECOM, Ft Monmouth, NJ. USACECOM, Ft Monmouth, New Jersey is the contract office for INFOSEC Key Management software development.

All INFOSEC RDT&E initiatives under this effort are either exploratory, advanced or under engineering development with full development authority in CECOM; project reviews are made with the appropriate requiring activity (Signal Center (TRADOC), testing officials (OPTEC),) during development. When a project achieves the production phase, the work is either under the guidance of CECOM Production or CECOM Communications Security Logistics Activity (CCSLA) with CECOM providing engineering guidance and monitoring testing and evaluation during the production.

The Joint Service C2 Protect Working Group, the Army C2 Protect Working Group or the Council of Colonels C2 Protect Working Group periodically reviews C2 Protect Tools projects. These groups also participate in planning of future efforts.

Army coordinated all initiatives with NSA.

D. Architecture and Infrastructure Standards:

These initiatives protect and defend the Army's critical information infrastructure and support an aggressive strategy to implement procedures to secure the Army's portion of the Defense Information Infrastructure. The goal is to have Information Assurance capability in place to ensure the availability, integrity, and confidentiality of information for mission-critical and information operations that can be sustained throughout an information warfare attack.

E. Program Highlights:

• The Army Key Management System's Local COMSEC Management Software (LCMS) milestone Ill decision for Type Classification and material release was approved in June 1999.

- Biometrics Authentication Project: Initiative provides a means to securely authenticate to a host computer or system.
- Gigabit Ethernet/ATM Security: Initiative provides a means for security to keep pace with the ever-increasing speed of network infrastructures.

F. Financial Basis for Selecting the Project:

DOD's growing reliance on advanced information technologies, smart weapon systems and sensors, networked data processing and global exchange of mission essential information, mandates implementation of a comprehensive and integrated effort to achieve positive control and protection of Army systems.

Army has funded the procurement and installation of firewalls and Intrusion Detection Systems to support security for the IT strategic plan and to protect the Army's portion of the DII in accordance with PDM II. Additionally, Army has accelerated the implementation of the Network Security Improvement Initiative and the Protection Plan for Army XXI Information Systems to increase and to enhance support to the Warfighter and the Digitized Force.

The current Defense Plan directs the implementation of a Public Key Infrastructure (PKI).

		Dollars in Millions								
	Sunk Costs	nk Costs FY00 FY01 FY02 FY03 FY04-N Tot								
APB Total Resources by FY N/A										
Total Resources by FY										

^{*}This program does not follow the traditional acquisition process.

Part III. Cost, Schedule, and Performance Goals:

The Army Key Management System (AKMS) Initial Operational Test and Evaluation (IOT&E) occurred during August-September FY97. Full Operational Test & Evaluation (FOT&E) is scheduled for 3rd Qtr FY2000.

Secure Terminal Equipment (STE) will provide the solution to the issue of secure interface among strategic, tactical and commercial communications systems as identified by the Joint Staff and Multi-Service Communications Electronics Board (MCEB). All Systems Administrators responsible for unclassified systems will be Information Assurance certified by Dec 00.

All computer operators/users will be IA certified by Dec 00.

Secure Gateway study is scheduled for 4th Qtr FY2000 and prototype development initiation by 4th Qtr FY2001.

Secure digitized systems to support Army initiative to support First Digitized Division (FDD) by FY2000 and First Digitized Corp (FDC) by FY2004.

A. Description of Performance based system(s): N/A

Baseline Information: N/A

	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total		
B. Previous Balance:	·					·			
Cost Goals (\$M)									
Schedule Goals (milestones)									
C. Baseline:									
Cost Goals (\$M)	67.9	108.4	101.0	108.1	91.6	247.7	723.1		
Schedule Goals (months)									
D. Current Estimate:									
Cost Goals (\$M)	67.9	113.4	134.5	107.0	90.5	241.4	754.7		
Schedule Goals (months)									
E. Variance from Baseline Goals	E. Variance from Baseline Goals:								
Cost Goals (\$M)	0	5.0	33.5	-1.1	-1.1	-6.3	31.6		
Schedule Goals (months)									

F. Corrective Actions: N/A

Schedule Goals:

Milestones

Baseline (Milestone) Schedule	Last President's Bu	udget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Milestone, phase; increment 1-N			

Performance Goals:

G. Year 2000 Special Information: N/A

Y2K Phase

	Previous President's Budget	Current Submission
Date of Accomplishment		
Funding Estimate by Phase		
Estimate time that for full Y2K Compliance		

Description Information:

Initiative Name and Acronym: <u>Installation Information Infrastructure Modernization Program (I3MP)</u> (previously known as Power
Projection, Command, Control, Communications and Computer Infrastructure (PPC4I))
Initiative Number: 2180
Project Activity/Mission Area: Communications and Computing Infrastructure/Mid Tier Processing
Date Project was initiated: June 86
Date of Last Acquisition Decision Memorandum (ADM): N/A
Project is in N/A Milestone, Approval Dated: N/A, N/A Phase as of current review.
The I3MP programs are not subject to Milestone reviews. The program is in a commercial environment and does not fall under the purview of a traditional acquisition development cycle.
Project Status: New Ongoing Ongoing
Information Technology Project: Yes No
Is this project a financial management system? Yes \sum No \times
If yes, what percentage is financial%
Current Year 2000 Phase: N/A
Year 2000 System Status as of January 20, 1999 (non-compliant, compliant, funding available): N/A
Projected Date for Completion: N/A
Mission Critical Status: N/A
Standard System Status: Yes
Organizational Information/Program Manager: Ms. Mancini, Phone (DSN 987-6988), USACECOM, SMC, ATTN: AMSEL-DSA-
SW, Bldg. 283, Ft. Monmouth, NJ 07703 / Ms. Betty Brock, Phone (DSN 992-7955), USACECOM, SMC, ATTN: AMSEL-DSA-
FM, Bldg. 283, Ft. Monmouth, NJ 07703

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Installation Information Infrastructure Modernization Program (I3MP) Project Activity/Mission Area: Communications and Computing Infrastructure/Mid Tier Processing

			Dol	lars in Milli	ons		
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total
Planning							
Total Dev Mod							
Full Acquisition							
OPA	68.8	103.4	148.0	98.7	160.0	594.1	1173.0
Total Dev Mod	68.8	103.4	148.0	98.7	160.0	594.1	1173.0
Current Services/Maintenance							
OMA	28.3	12.0	6.0	4.2	4.2	12.7	67.4
Total Current Service	28.3	12.0	6.0	4.2	4.2	12.7	67.4
Total Resources by FY	97.1	115.4	154.0	102.9	164.2	606.8	1240.4

Part II. Justification:

Provide Requested Justification Materials

A. Description/Performance Characteristics:

Investment Description. The I3MP is a synchronized effort involving four components for modernization of the outside cable and telephone switch, Campus area network and longhaul gateway. The mission and purpose of I3MP is to synchronize the upgrade of the telecommunications/information infrastructure on Army installations. Synchronization achieves funding efficiencies by reducing duplication, minimizing impact on receiving installation and by engineering a total site solution.

As installations digitize for Army XXI and beyond, information management must provide more coherent oversight, integrate power projection / power support and installation management and prepare the installation for changes in technology, threats and opportunities. Initiatives to implement new business practices and efforts to gain economies will place significant demands on the installation information infrastructure. This infrastructure must be adequate to support Defense Reform Initiatives (Paperless Contracting, Electronic Travel Management, Internet Base Publishing, Electronic Commerce, Distance Learning and Revolution In Logistics). The infrastructure is critical to reach back and power projection of the digital division and employment of advanced technology for an agile combat force.

The I3MP programs are not subject to milestone reviews or activities.

Business Process Reengineering will be used to provide effective Army programs through continuous process evolution and improvement, resulting in maximizing efficiencies toward the goal of information dominance.

B. Program Management/Management Oversight:

Business process owner or functional proponent is the Director of Information Systems for Command, Control, Communications & Computers. The executive agent or program manager is the Project Manager, Defense Communications and Army Switched Systems.

2180/ INSTALLATION INFORMATION INFRASTRUCTURE MODERNIZATION PROGRAM - IT Capital Investment Exhibit (IT-300b)
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All efforts are heavily dependent on exploitation of the Integrated Project Team concept. IPT's are on going in the areas of architecture development, configuration control, total systems design and all levels of project implementation and contract management. Each individual site also has an IPT Leader, responsible for overall systems site solution. The IPT maintains total management of site implementations by employing empowerment, cross-functional talents and expertise and the involvement of contractors and site customers as equal team members.

C. Contract Information:

Contract names; prime contractor. CECOM Acquisition Center, Strategic Communications & Security Assistance Branch, is the servicing contracting activity. The major prime contractors are Harris Corp., GTE Government Systems, OAO, CISCO, Microstar, EDS, Lockheed Martin, Lucent Technologies and Bell Atlantic.

Contracts for the Digital Switched Systems Modernization Program (DSSMP) and Outside Cable Rehabilitation (OSCAR) program are the results of competitively awarded acquisitions. Delivery orders for Common Use Installation Transport Network (CUITN) utilize existing IDIQ contracts, and other existing competitively awarded open-use vehicles. Secondary competition among IDIQ contract holders further forces the prices downward, using the "competition after award" concept.

D. Architecture and Infrastructure Standards:

All installed infrastructure complies fully with the JTA-A.

Infrastructure Strategy: HW requirements are included in this funding.

Transport: Existing long haul/DISN networks.

I3MP is the base level information infrastructure program. Successful implementation of infrastructure modernization is dependent on accurate requirements from the applications programs which the infrastructure supports (i.e. Standard Army Management Information Systems (STAMIS), telemedicine and base-level environmental and property management applications).

2180/ INSTALLATION INFORMATION INFRASTRUCTURE MODERNIZATION PROGRAM - IT Capital Investment Exhibit (IT-300b)

All implementations utilize Commercial Off-The-Shelf (COTS), Nondevelopmental Item (NDI) equipment and services.

E. Program Highlights:

CUITN work is currently ongoing at Ft Carson, CO. The outside cable work is near completion and is scheduled to be completed at the end of Jan 00. The low level of program activity during this time period is attributed to the program decrements during FY 98 and FY 99 for Y2K on the telephone modernization program. PM DSSMP completed upgrading / modernizing the Army's inventory of digital switched systems to Y2K compliance on 23 Sep 99. PM DSSMP has recently initiated acquisition, engineering and program planning activity at USARSO (Puerto Rico), and Ft Bragg, NC. In addition to FT Bragg, and USARSO, the FY 00 program will concentrate on modernization efforts at the following Installation Sequence List (ISL) sites: Ft Bragg, Ft Campbell, Aberdeen Proving Ground, Ft Dix, Ft Monroe, Ft Gordon, Ft Benning, Rock Island Arsenal, Army Cold Region and Pine Bluff Arsenal. PM OSCAR released a Solicitation for Proposals for the Installation Information Infrastructure Modernization Program (I3MP) implementation at Fort Riley under the DSSMP contract and completed the engineering package for Fort Polk, LA.

F. Financial Basis for Selecting the Project:

12/21/99

	Dollars in Millions									
	Sunk Costs	Sunk Costs FY00 FY01 FY02 FY03 FY04-N To								
Total Resources by FY *	290.0	154.0	102.8	164.2	194.3	412.5	1317.8			
Total Resources by FY										

^{*}This program does not follow the traditional acquisition process; however, the numbers reflect life cycle cost of program to date.

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

Performance goals are dependent upon individual site or installation mission requirements.

Baseline Information:

This is not a traditional developmental acquisition program. Cost goals have not been established. The program is executed based on the funds made available through the PPBS process, in conjunction with the standard I3 architecture. Due to the nature of the program there are no overarching schedule goals. Installations are modernized based on the priority reflected in the Army Installation Sequence List and the available funding for the year of execution, mission need, and degree of existing infrastructure.

	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total
B. Previous Balance:							
Cost Goals (\$M)	205.4	104.6	153.8	145.6	219.8	673.0	1502.2
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals (\$M)	329.4	91.7	129.8	98.3	160.3	597.2	1406.7
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals (\$M)	329.4	103.4	148.0	98.7	160.0	594.1	1,433.6
Schedule Goals (months)							
E. Variance from Baseline Goals	:					·	
Cost Goals (\$M)	0	11.7	18.2	.4	-0.3	-3.1	26.9
Schedule Goals (months)					·		

The variances in FY2000 and the cum total FY2003 – FY2005 is a result of 41M National Guard program and a 16M reprogram of OMA to OPA funds.

F. Corrective Actions:

Schedule Goals: Milestones: N/A

Baseline (Milestone) Schedule	Last President's Bu	idget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Milestone, phase; increment 1-N			

Performance Goals: The I3MP programs are not subject to Milestone reviews. The program is in a commercial environment and does not fall under the purview of a traditional acquisition development cycle.

G. Year 2000 Special Information:

Y2K Phase: N/A

	Previous President's Budget	Current Submission
Date of Accomplishment		
Funding Estimate by Phase		
Estimate time that for full Y2K Compliance		

Requested funds have been appropriated and released for this program by virtue of program funding redirection. Installation campus area network and switching modernization for a least two installations has been postponed in order to fund the Y2K requirements. The installation infrastructure modernization initiative was delayed the last two years.

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Description Information:

Initiative Name and Acronym: Joint Computer-aided Acquisition and Logistic Support (JCALS)
Initiative Number: 1039
Project Activity/Mission Area: Functional Area Applications Area/Logistics
Date Project was initiated: Joint Technical Manual Effort initiated in Jun 92
Date of Last Acquisition Decision Memorandum (ADM): 7 Dec 99
Project is in II Milestone, Approval Dated: Oct 1993, Development Phase as of current review. Deployment being implemented
through incremental deployments. ADM issued 5 August 1998 authorizing deployment of the Software Package (SWP) capability to
Army, Navy and Marine Corps. ADM issued 7 December 1999 authorizing deployment of the SWP 2 capability to Air Force.
Project Status: New Ongoing 🖂
Information Technology Project: Yes No
Is this project a financial management system? Yes No
If yes, what percentage is financial %
Current Year 2000 Phase: Completed
Year 2000 System Status as of January 14, 2000 (non-compliant, compliant, funding available): compliant
Projected Date for Completion: Completed 3/29/99
Mission Critical Status: No
Standard System Status: Yes
Organizational Information/Program Manager: Organizational POC is Kevin Dwyer, PEO STAMIS, (703) 806-3614, fax: (703) 806-
4289; PM JCALS is Ms. Joanne Powell, (732) 532-0400, FAX (732) 532-0403, PM, Joint Computer-aided Acquisition and Logistic
Support (JCALS), ATTN:SFAE-PS-CAL, Ft. Monmouth, NJ 07703-5626
Support (JCALS), AT TN.STAE-TS-CAL, Pt. Wollinoutil, NJ 07703-3020

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Joint Computer-aided Acquisition and Logistic Support (JCALS)

Project Activity/Mission Area: Functional Area Applications Area/Logistics

	Dollars in Millions							
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total	
<u>Planning</u>								
OMA	23.7	0	0	0	0	0	23.7	
Total Dev Mod	23.7	0	0	0	0	0	23.7	
Full Acquisition								
DBOF Capital Budget	143.7	0	0	0	0	0	143.7	
MPA		0.1	0.1	0.1	0.1	0.3	0.7	
OMA	288.8	82.7	42.1	0	0	0	413.6	
OPA	109.4	28.8	32.2	58.8	90.7	250.9	570.8	
RDTE		0	0	42.2	16.8	68.8	127.8	
Total Dev Mod	565.6	111.6	74.4	101.1	107.6	320.0	1280.3	
Current Services/Maintenance								
OMA	9.8	12.0	14.7	24.6	24.9	106.5	192.5	
Total Current Service	9.8	12.0	14.7	24.6	24.9	106.5	192.5	
Total Resources by FY	575.4	123.6	89.1	125.7	132.5	426.5	1472.8	

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Part II. Justification:

A. Description/Performance Characteristics:

JCALS will provide all military services with automated tools to support improved business processes associated with managing, acquiring, improving, publishing, stocking and distributing technical manuals (TM). In addition, JCALS provides a communications and automation infrastructure suite capable of integrating digitized technical data that supports a weapon system's acquisition and logistics life cycle. JCALS is data-driven and based on a robust information system architecture that can support additional capabilities beyond TMs with little if any additional common user infrastructure.

JCALS infrastructure supporting TM functions includes automated tools to support Workflow and Work Folder Management business processes. JCALS also includes a Global Data Management System (GDMS) in a distributed environment. In addition, the JCALS infrastructure provides an automated Reference Library and Generic Authoring, PC Client and Electronic Signature tools. Although the JCALS Infrastructure is designed to support improved business processes associated with development, distribution and use of Technical Manuals, it can also be easily adapted and expanded to support other weapon system acquisition and logistics management processes. The JCALS TM capability and supporting infrastructure will be deployed to 440 sites based on functional user defined priorities. These sites will be integrated into a comprehensive JCALS network.

The JCALS TM capability provides automated tools to support improved methods of managing, acquiring, improving/updating, publishing, stocking and distributing technical manuals. This system will also be capable of supporting similar requirements for administrative publications and will ultimately be capable of storing and processing secret data. JCALS infrastructure is designed to be a distributed, open systems environment that makes extensive use of both industry and Government standards. These standards include the use of a POSIX-compliant operating system, Open Systems Interconnection (OSI) Networking Model and Transmission Control Protocol/Internet Protocol (TCP/IP) for communications protocols, Windows-based user interfaces, and Ada, C, C++ and JAVA for developed software. The JCALS technical architecture is designed for flexibility and growth, and can accommodate additional system requirements, technological improvements, and new functionality. JCALS is a designated target system.

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JCALS implementation will support improved methods of managing, distributing, and using technical manuals (TMs). JCALS automated tools supporting improved TM functionality will also provide the Department of Defense with an integrated capability to accept digitized weapon system logistic technical data from industry and to efficiently store, access, and process this data. Potential benefits to be derived include:

- Automated tools to support improved/reengineered business processes.
- A more timely and efficient flow of logistic and acquisition data between Government and industry.
- A reduction in the time required to develop and deploy weapon systems through use of the automated Workflow Manager.
- A reduction in use of bulky paper, to include reduced storage requirements.
- A reduction in Operation and Support costs through interfaces to and replacement of existing legacy systems.

These long-term benefits will provide enhanced information technology capabilities to the DoD resulting in increased war fighting capabilities. JCALS will help maintain US qualitative superiority in support of national defense in key war fighting capabilities (e.g. information warfare, logistics).

As a result of the initial deployment of the JCALS infrastructure to Defense Information Infrastructure (DII) Pilot Projects, the Services, DLA and OSD have realized that substantial and immediate benefits will be gained through deployment of the JCALS infrastructure. OSD determined that JCALS infrastructure offers a valuable support vehicle to help correct many current logistics shortfalls throughout the Services and DLA. While the JCALS program currently supports only TM functions, OSD felt it prudent to authorize evaluation and use of JCALS infrastructure to support additional acquisition and logistics functions where economically feasible. As a result of this decision, an Acquisition Decision Memorandum was issued on 21 Aug 96 that authorized implementation of JCALS infrastructure on a reimbursable basis to sites and users outside the TM community that will benefit from underlying JCALS automated capabilities. This included those sites where Depot Maintenance and Materiel Management applications will be

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deployed. To date, more than 26,000 DoD users have received JCALS Infrastructure to support logistics, acquisition and TM functions. This infrastructure has been well received by the Services and DLA. All infrastructure specific (non-TM) deployments are performed on a reimbursable basis with user provided funds. No JCALS funds are being expended in support of these efforts.

JCALS rapidly increases capabilities to receive, distribute, and use logistic technical information in digital form. In establishing the CALS Program initiative in his memo dated 24 September 1985, the Deputy Secretary of Defense directed that DOD give high priority to the planning, management, standardization, technology and data system modernization efforts needed to help achieve the objective of digitized logistic technical information. This need was reaffirmed by the Deputy Secretary of Defense in his memo dated 5 Aug 88, which directed all new weapon system developers, effective immediately, to plan for the utilization of CALS within their prime development programs beginning in Oct 88.

JCALS is a designated target system. PM JCALS has established an Integrated Product Team (IPT), which deals with the transition of existing systems to JCALS. The Services and PM JCALS are involved in resolving all transition issues. A Transition and Cutover Plan documents all agreements. Significant cost savings to DoD and the Services will result as existing Service stovepipe Automated Information Systems (AIS) migrate to JCALS.

Two cost alternatives have been developed and validated as the basis for selecting the JCALS Technical Manual (TM) Program alternative. The first alternative is to continue using manual, paper-based methods. The second alternative is to automate/re-engineer the six TM business processes to provide a modernized TM environment for users, with a fully distributed open system architecture, including the hardware, software, communications and support capability required to support reengineered TM business processes.

JCALS will initially support the management of technical manuals (TM). The JCALS infrastructure deployed in support of TM can also support business process improvements for other acquisition and logistics functions at little or no additional cost. These business process improvements allow inherently government functions to be performed more efficiently. JCALS-provided automation capabilities allow for a new way of doing business within DoD and take DoD from the paper to the digital world.

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B. Program Management/Management Oversight:

The process owner is the DoD Acquisition and Logistics Community represented by the Deputy Under Secretary of Defense for Logistics (DUSD(L)) as the JCALS functional proponent. Army's Logistics Integration Agency (LIA) is the functional Executive Agent for JCALS. The acquisition executive agent is the Program Executive Officer for Standard Army Management Information Systems (PEO STAMIS). The Project Manager for JCALS is assigned to PEO STAMIS who reports directly to the Army Acquisition Executive (AAE). The contracting office for the JCALS acquisition is the US Army Communications Electronics Command (CECOM) Acquisition Center - Washington.

JCALS uses an Integrated Product Team (IPT) approach to properly manage the JCALS effort. An Overarching IPT provides oversight of the total program. PM JCALS has also established Working Level IPTs to help manage various facets of JCALS. These IPTs include: Integrating, Supportability, Training, Deployment, Cost Benefit Analysis (CBA), Telecommunications, Security, Configuration Management, Transition/Cutover and Data Loading, Testing, and Functional Requirements Clarification. The prime contractor submits Earned Value Reports to the PM JCALS on a monthly basis. The JCALS Technical Manual Program is being implemented in blocks of functionality. These blocks are called Software Packages (SWPs). Earned Value is reported by SWP. Following contract award, the contractor has 55 days to establish an Earned Value baseline. Schedule and cost performance are then measured against that baseline.

In addition, PM JCALS requires the contractor to report Earned Value data by delivery order for the deployment phase of the program. This data is structured by delivery order and by site location. This data is used to validate that Cost Plus efforts for each deployment equal levels negotiated in the contract and to provide a monthly status of each JCALS deployment.

C. Contract Information:

Computer Sciences Corporation, 304 West Route 38, Post Office Box 1038 Moorestown, New Jersey 08057-0902.

The JCALS procurement is based upon an OMB A-109 acquisition strategy. During Phases I and II, a Source Selection Evaluation Board (SSEB) evaluated solutions of various contractors and down selected at the end of each phase. On 19 December 1991, CSC was 1039 JOINT COMPUTER AIDED ACQUISITION AND LOGISTICS SUPPORT—IT Capital Investment Exhibit (IT-300b) Page 6 of 20

selected as the contractor to complete JCALS design, development, test and deployment. This selection was based on the demonstrated best value of the CSC design solution. Design, development, and testing tasks performed through the CSC contract are paid through a mix of Cost Plus Award Fee, Firm Fixed Price and Time and Materials based on the task performed. CSC is paid for deployment tasks through a combination of Cost Plus Award Fee, Cost Plus Fixed Fee, Firm Fixed Price and Time and Materials.

The JCALS contract was awarded in August 1989, prior to the requirement to implement performance based contracts. Although implemented prior to the performance based contracting initiative, the overall approach for implementing JCALS is based upon many of the performance based contracting precepts. JCALS was developed based upon an OMB A-109 acquisition strategy. The contractors were given the requirement and each contractor was required to provide a written description of their solution as well as a demonstration of their solution. A top-level summary of the performance goals is as follows:

- Support weapon system life cycle processes from initial acquisition through logistic support to deactivation.
- Modernize Service and DLA processes for the capture, management, interchange, and processing of acquisition and logistic technical information.
- Automate the basic DoD CALS technical manual (TM) information infrastructure supporting processes of manage, acquire, improve, publish, stock, and distribute technical manuals.
- Provide an integrated support environment through an Integrated Weapon System database (IWSDB) in which the user can perform all required functions from a single workstation.
- Develop a basic infrastructure to provide interconnectivity and distributed data management.

New contracting initiatives are being implemented using performance based contracting.

D. Architecture and Infrastructure Standards:

OSD has directed that new C4I systems and systems that interface to C4I systems be in compliance with the Joint Technical Architecture (JTA). The JTA in turn mandates use of the Defense Information Infrastructure Common Operating Environment (DII COE). Reference is specifically made to C4ISR Architecture Framework, CISA-0000-104-96, Version 1.0, 7 June 1996, C4ISR 1039 JOINT COMPUTER AIDED ACQUISITION AND LOGISTICS SUPPORT—IT Capital Investment Exhibit (IT-300b) Page 7 of 20

Integration Task Force (ITF) Integrated Architectures Panel. This document presents an innovative definition of levels of interoperability. The DII COE adopts these levels of interoperability and maps DII compliance to interoperability levels. The COE defines eight progressively deeper levels of integration for the Runtime Environment Category. These levels are directly tied to the degree of interoperability achieved. True integration begins at Level 4. JCALS has been certified at Level 5 by the Defense Information Systems Agency (DISA). A migration strategy is in place to achieve Level 8 integration as DISA puts platform-specific tools and test environments in place.

Infrastructure Strategy:

- JCALS funding supports only the Technical Manual (TM) Program. Any infrastructure purchased from the JCALS contract to support requirements other than TM is funded with non-JCALS funds by the activity requiring the infrastructure.
- Transport: The JCALS system will use the Defense Information Systems Network (DISN) as the primary means to route traffic among JCALS sites. Asynchronous Transfer Mode (ATM) or Fiber-optic Distributed Data Interface (FDDI) are the high-speed backbone network protocols employed in the JCALS architecture. ATM or FDDI will be utilized at each JCALS node to interconnect the processors at those sites that are required to handle a high volume of intra-site data traffic. The JCALS acquisition strategy mandates the reuse of existing assets where feasible.
- JCALS utilizes existing infrastructure assets at sites that receive the JCALS capability. Where infrastructure needed to support JCALS is not available, PM JCALS provides this infrastructure during the JCALS deployment.
- The JCALS system consists of approximately 94% COTS products and 6% custom components (developed software). When COTS products are not available to satisfy functional requirements, custom components are developed. PM JCALS and the prime contractor are constantly evaluating new COTS products to determine if these products can satisfy JCALS technical manual functional requirements and replace existing custom components. This helps assure that COTS products are used to the maximum extent possible in the development of JCALS.

E. Program Highlights:

- 1. In FY00, PM JCALS will deploy the Technical Manuals (TM) capability to 32 new sites.
- 2. On 5 Nov 99, representatives from the Air Force, OPTEC, AFOTEC, OSD/DOT&E, and various Air Force users met to review the results of the Air Force SWP2 tests. The users and test community have declared JCALS SWP 2 suitable and effective with certain limitations. These limitations are currently being addressed by the JCALS program office.
- 3. Based on the test results, the Office of the Assistant Secretary of Defense (ASD), Command, Control, Communications, and Intelligence (C3I) signed an Acquisition Decision Memorandum (ADM) on 7 December 1999 to authorize operational deployment of JCALS SWP 2 to Air Force sites. The ADM was issued as a result of successful follow-on evaluation of the modified SWP 2.
- 4. As of 19 August 1999, the Air Force turned off the G022 system and began using JCALS to manage TMs.
- 5. Difficulties in resolving Air Force specific SWP 2 issues have forced PM JCALS to reallocate resources originally intended to support SWP 3 to SWP 2. This has significantly delayed completion of the full SWP 3 capability. PM JCALS has worked with the JCALS functional community to modify the SWP 3 acquisition strategy to mitigate impact of these delays. The revised SWP 3 acquisition strategy calls for implementation of SWP 3 in three sub-blocks. This will allow replacement of service specific legacy systems in a timely fashion, reducing the impact on individual services of delays in completion of SWP 3.

F. Financial Basis for Selecting the Project:

The life cycle cost for the JCALS program, based upon the Cost Benefit Analysis (CBA) cost excursion, dated June 1999, is \$3,208.9M in current year dollars. PM JCALS updated the CBA in June 1998 in preparation for Milestone III. The CBA has been concurred upon by the Cost Integrated Product Team (IPT). CEAC has completed the Component Cost Analysis (CCA). A Joint

Service Cost Position (JSCP) meeting was held on 15 March 1999. PM JCALS has prepared a cost excursion to reflect the results of the JSCP. The cost excursion was reviewed by the Cost IPT and was used in updating the Acquisition Program Baseline (APB). The APB is currently being staffed for approval.

	Dollars in Millions									
	Sunk Costs	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004-N	Total			
APB Total Resources by FY	697.0	132.5	143.6	146.2	150.0	300.7	1570.0			
Rebaseline Total Resources by FY	699.0	89.1	125.7	132.5	137.5	289.0	1472.8			

Note: APB Total Resources by FY and Re-baseline Total Resources by FY reflect JCALS resources controlled and/or managed by PEO STAMIS/PM JCALS and JCALS Data Loading and Conversion resources managed by Army's Logistics Integration Agency (LIA). Army's LIA manages DII resources as JCALS Functional Executive Agent. Rebaseline Total Resources also reflects realignment of FY00 through FY05 funds out of JCALS to Joint Total Asset Visibility (JTAV) and Joint Logistics Warfighting Initiative (JLWI).

The benefits associated with the JCALS TM Program are classified into quantifiable and non-quantifiable benefits. Quantifiable benefits include increased management productivity; reduced storage, printing, and mailing costs; and lower costs for TM change and review processes. The CBA estimated that TM quantifiable benefits would total \$1,801M (FY98 constant dollars). Benefits were categorized as savings, productivity enhancements and cost avoidance. Projected savings resulting from JCALS supported improvements to technical manual business processes have already been harvested from individual military service budgets.

The JCALS TM Program provides a benefit-investment ratio or Return on Investment (ROI) of 1.6 to 1 in constant FY98 dollars (CBA). The entire cost of JCALS Infrastructure was included when calculating the TM ROI. The ROI is estimated to be 4.1 to 1.0

for the TM application only. As additional functionality is incorporated into JCALS, benefits should increase significantly with only moderate increases in costs, resulting in a significantly higher ROI.

The cost and benefit data discussed above was taken from the approved June 1998 CBA.

Two cost alternatives were developed and validated to evaluate potential JCALS TM economic benefits. The first alternative is to continue the same manual, paper-based business process used today. The second alternative is to automate and re-engineer the six TM business processes to provide an enhanced TM environment for users, with a fully distributed open system architecture, including required hardware, software, communications and support capabilities.

The following are the assumptions from the June 1999 cost excursion:

- The JCALS TM program will be deployed to 440 sites and 31,834 users
- Full Operating Capability (FOC) is in FY 2004
- Life cycle is FY 1999 to FY 2014

A description of the top five program risks are provided as follows:

- SWP 3 is being developed in three increments. Delays of any SWP 3 increment could impact final Milestone III approval of the full JCALS program.
- Funding reductions or funding transfers to support initiatives outside the validated Joint Technical Manual (JTM) program will detract from JCALS capability to develop, deploy and sustain the JTM capability.
- If JCALS does not remain a viable Integrated Data Environment (IDE) solution for DoD, the DoD will lose its Return on Investment (ROI) from JCALS implementation.

- Number of JCALS users/sites continues to increase beyond levels validated in the JCALS Cost/Benefit Analysis (CBA). If PM and users do not continue efforts to control this, program costs would increase. This will cause JCALS schedule slips. The ability to sustain JCALS would be impacted.
- The current labor intensive configuration and operation of the System Operational and Support Capability (SOSC) could cause unacceptable increases in OMA funded sustainment costs as the JCALS user base grows.

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

The JCALS program was established as a joint DoD program in 1992. PM JCALS developed an initial APB when AIS programs transitioned to the DoD 5000 series of regulations.

The system has not been baselined. The initial APB was approved by the Services but the Milestone Decision Authority requested that the document be updated with the latest schedule information before final approval. These changes have been made and the Acquisition Program Baseline is currently being staffed and coordinated for approval.

Full JCALS Milestone III (based on completion of all SWP 3 capabilities) is scheduled for June 2001. An initial JCALS capability (SWPs 1 and 2) has been completed. OSD issued an Acquisition Decision Memorandum (ADM) on August 5, 1998 granting authority to field SWP 2 to Army, Navy, and Marine Corps sites. A separate ADM was issued on 7 Dec 99 to authorize deployment of SWP 2 to Air Force sites. The Air Force G022 Technical Order system was turned-off on 19 July 1999 and the Air Force began operational use of JCALS on 19 August 1999. Air Force is now using JCALS to manage all Technical Orders (Technical Manuals).

The date for the full JCALS Milestone III decision review has been adjusted to June 2001 to provide adequate time to properly cut over Service legacy systems. A lesson learned during the Air Force cut over from G022 was that both PM JCALS and the customer

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underestimated the level of effort needed to properly cut over TM functions from service specific legacy systems to JCALS. Given this, additional time has been allocated to move supported Army, Navy, and Marine Corps business processes from service specific legacy systems.

Variance from FY00 President's Budget:

- OMA funding reductions from FY 2001 through FY 2005 reflect movement of funds supporting DII Pilot Projects and JCALS Data Loading and Conversion (DC&L) out of JCALS in the FY01-FY05 mini-POM. Army moved FY 1999 and FY 2000 funds for these projects out of JCALS during year of execution.
- As a result, program reviews realigned FY 2001 FY 2005 OMA resources formerly used in support of JCALS acquisition tasks to OPA and RDT&E appropriations to address Congressional concerns as to the use of the OMA appropriation to support acquisition related tasks.
- As a result, program reviews realigned \$73.8M of JCALS FY 2000 FY2005 funding to other high priority DoD initiatives (Joint Total Asset Visibility (JTAV) and Joint Logistics Warfighting Initiative (JLWI)). PM JCALS is evaluating options to adjust the scope and duration of the JCALS acquisition effort to mitigate the impact of this realignment.
- Year 2000 implementation has not impacted cost and schedule goals.

	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total
B. Previous Balance:	•						
Cost Goals (\$M)	575.4	121.6	132.5	143.6	146.2	450.7	1570.0
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals (\$M)	575.4	121.6	132.5	143.6	146.2	450.7	1570.0
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals (\$M)	575.4	123.6	89.1	125.7	132.5	426.5	1472.8
Schedule Goals (months)							
E. Variance from Baseline Goals	•						
Cost Goals (\$M)	0	2.0	-43.4	-17.9	-13.7	-24.2	-97.2
Schedule Goals (months)							

Note: Previous Balance, Baseline, and Current Estimate reflect JCALS resources controlled and/or managed by PEO STAMIS/PM JCALS and JCALS Data Conversion and Loading (DC&L) managed by Army's Logistics Integration Agency (LIA). Army's LIA manages DII resources as JCALS Functional Executive Agent. Current Estimate also reflects the realignment of funds from JCALS to other high priority DoD initiatives (JTAV and JLWI).

The JCALS Test and Evaluation Master Plan (TEMP) and Acquisition Program Baseline (APB) are two of the primary documents that describe the performance goals for JCALS. Those goals are:

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- Achieve input/output processes 95% of the time to support Service efforts to manage, acquire, improve, publish, stock and distribute Technical Manuals.
- System is available to allow Services to capture, store, and distribute a variety of data types in standard format and perform related global data management; workflow management and integrated weapon system database (IWSDB) tasks at least 95% of the time.
- TM management and content data shall be stored to or retrieved from local IWSDB, <=60 seconds 95% of time and from remote IWSDB <=60 minutes 95% of time.
- Capability to exchange information with identified interfaces 100% of the time
- JCALS hardware and software must satisfy mission demand at any one site 97.9% of the time.
- Provide an implementation that will accommodate the processing of up to SECRET data
- Meet security requirements per ISO/IEC 15408 and AR 380-19 and achieve successful certification and accreditation.
- Evolve the JCALS infrastructure to comply with full COE Compliance Level (5, or higher) of the GCSS COE-based system.

The requirement to implement the program through performance specifications was mandated by OSD following the implementation of the JCALS program.

F. Corrective Actions:

Following completion of the JCALS SWP 2 test effort for the Air Force, the users and test community have declared JCALS SWP 2 Suitable and Effective with certain limitations. There will have to be continuous system monitoring to ensure system use and acceptance. Software problems still exist but are being worked for resolution in future maintenance drops. An assessment of the need for additional training will have to be conducted by the Air Force and the Program Manager. Some data issues remain, but are targeted for quick resolution. PM JCALS is awaiting the official test report, but the successful test results are being coordinated with the ASD/C3I.

As a result of delays in implementing SWP 2, the SWP 3 schedule has been impacted. To mitigate the schedule slip, PM JCALS has developed a new SWP 3 JCALS implementation strategy. Rather than deploy all desired SWP 3 capabilities following Milestone III

(the "big bang" approach), the functional community has reprioritized their requirements to allow SWP 3 to be developed, tested and deployed in three discrete increments. An ADM authorizing incremental deployment will be issued following successful operational testing of each increment. By using this approach, critical functional requirements can be satisfied incrementally prior to a final Milestone III decision. This strategy will expedite the shut down of legacy systems and cut-over of supported business processes to JCALS beginning in FY 2001. This incremental implementation will also reduce program risk.

A SWP 3 Software Review Board (SRB) process has been established to mitigate risk and to insure that all functional requirements are complete prior to test. Due to the volume of functional requirements in SWP 3, the SRB process will be used to monitor the progress/earned value of the SWP 3 functional requirements as these requirements move from design to development to test.

Schedule Goals:

Milestones

Variance from schedule from FY00 President's Budget.

Baseline (Milestone) Schedule	Last President's B	udget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Milestone I OSD		Jan 91	
Milestone II (Seg 1) OSD		Nov 93	
Milestone I (Seg 2) OSD		Nov 93	
Milestone II (Seg 2) OSD		Aug 94	
Fielding Decision-DII Products		Aug 95	
Award Initial Delivery Order		Sep 95	
ADM Limited Fielding-SWP1/2		Aug 96	
Milestone III-SWP2	Sep 97(1)		
OIPT Review-Army, Navy, MC		Aug 98(2)	
OIPT Review-Air Force	Mar 99(3)	Dec 99	
Milestone III – JCALS	Dec 99		Jun 01(4)
SWP4 Implementation	FY07		FY07
FOC	Sep 05		TBD – program review impact still being assessed

Status/Corrective Actions:

- (1) Milestone III was originally scheduled for September 1997 following completion of SWP 2. A decision was made to provide for SWP 2 fielding authority through OIPT reviews/ADMs and to conduct a Milestone III review following the completion of SWP 3.
- (2) The OSD Milestone Decision Authority signed an ADM on 5 August 1998 that approved deployment of the SWP 2 capability to the Army, Navy and Marine Corps.
- (3) An ADM approving deployment of the SWP 2 capability to the Air Force was signed in December 1999.

(4) Milestone III for SWP 3 has slipped to Jun 01. The date for the Milestone III decision has been adjusted to June 01 to account for the time required to successfully complete legacy system shut down and cut over of supported business processes to JCALS for each Service. A lesson learned during the Air Force cut over from G022 was that both PM JCALS and the customer underestimated the level of effort needed to properly cut over TM functions from service specific legacy systems to JCALS. Given this, additional time has been allocated to move supported Army, Navy, and Marine Corps business processes from service specific legacy systems.

Performance Goals:

The JCALS Test and Evaluation Master Plan (TEMP) and Acquisition Program Baseline (APB) are two of the primary documents that describe the performance goals for JCALS. Those goals are:

- Achieve input/output processes 95% of the time to support Service efforts to manage, acquire, improve, publish, stock and distribute Technical Manuals.
- System is available to allow Services to capture, store, and distribute a variety of data types in standard format and perform related global data management; workflow management and integrated weapon system database (IWSDB) tasks at least 95% of the time.
- TM management and content data shall be stored to or retrieved from local IWSDB, <=60 seconds 95% of time and from remote IWSDB <=60 minutes 95% of time.
- Capability to exchange information with identified interfaces 100% of the time
- JCALS hardware and software must satisfy mission demand at any one site 97.9% of the time.
- Provide an implementation that will accommodate the processing of up to SECRET data. Meet security requirements per ISO/IEC 15408 and AR 380-19. Achieve successful certification and accreditation.
- Evolve the JCALS infrastructure to comply with full COE Compliance Level (8) of the GCSS COE-based system.

Accomplishments to date: An Acquisition Decision Memorandum (ADM) was issued on 5 August 1998 authorizing deployment of the SWP 2 capability to the Army, Navy and Marine Corps. This decision was supported by OPTEC stating that the system was

"effective and suitable" for deployment to the Army, Navy and Marine Corps. Additional Air Force unique requirements have been incorporated into the SWP 2 capability. An ADM, to authorize SWP 2 deployment to the Air Force, was issued on 7 Dec 1999. Based upon guidance issued by the Air Force, the Air Force G022 Technical Order system was turned-off on 19 July 1999 and JCALS will become operational on 19 August 1999. The operational JCALS system will manage all Air Force Technical Orders (Technical Manuals). To date, JCALS has been deployed to approximately 26,000 users at 104 sites.

PM JCALS has developed a new SWP 3 JCALS implementation strategy. Rather than deploy all desired SWP 3 capabilities following Milestone III (the "big bang" approach), the functional community has reprioritized their requirements to allow SWP 3 to be developed, tested and deployed in three discrete increments. An ADM authorizing incremental deployment will be issued following successful operational testing of each increment. By using this approach, critical functional requirements can be satisfied incrementally prior to a final Milestone III decision. This strategy will expedite the shut down of legacy systems and cut-over of supported business processes to JCALS beginning in FY 2001. This incremental implementation will also reduce program risk.

Variance from performance from FY00 President's Budget: The performance goals are on track.

G. Year 2000 Special Information:

Y2K Phase: Completed

	Previous President's Budget	Current Submission
Date of Accomplishment		03/2999
Funding Estimate by Phase	AWARENESS = \$0	AWARENESS = \$0
	ASSESSMENT = \$100,000	ASSESSMENT = \$100,000
	RENOVATION = \$200,000	RENOVATION = \$200,000
	VALIDATION = \$200,000	VALIDATION = \$200,000
	IMPLEMENTATION = 0	IMPLEMENTATION = \$ 0
Estimate time that for full Y2K Compliance		Completed on 3/29/99

The PEO approved the test report on 26 March 1999 and the JCALS Functional Proponent, Logistics Integration Agency, approved the test report on 21 May 1999. PM JCALS has completed its Y2K certification process and has received a Level II certification from PEO STAMIS. The post certification process is currently in place.

PM JCALS is following the Army's five-phase approach to mitigate the Year 2000 problem:

The JCALS Y2K program has been implemented within project funding.

To date, Y2K requirements have not resulted in opportunity costs to the program.

Description Information:

Initiative Name and Acronym: <u>Information Management and Telecommunications</u> , <u>Pentagon Renovation</u> Initiative Number: 1499
Project Activity/Mission Area: Communications and Computing Infrastructure/Other Applications Processing
Date Project was initiated: January 1992
Date of Last Acquisition Decision Memorandum (ADM): N/A
Project is in N/A Milestone, Approval Dated: N/A, N/A Phase as of current review.
Project Status: New Ongoing
Information Technology Project: Yes No
Is this project a financial management system? Yes \overline{\overline{\text{Ves}}} No \overline{\text{No}}
If yes, what percentage is financial%
Current Year 2000 Phase: N/A
Year 2000 System Status as of January 20, 1999 (non-compliant, compliant, funding available): Compliant
Projected Date for Completion: N/A
Mission Critical Status: N/A
Standard System Status: Yes
Organizational Information/Program Manager: Ms. Angela Lewis, 703-693-8278, FAX 614-6329; Information Management and
Telecommunications, Pentagon Renovation, 100 Boundary Channel Dr., Arlington, VA 22202-3712

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Information Management and Telecommunications, Pentagon Renovation Project Activity/Mission Area: Communications and Computing Infrastructure/Computing Infrastructure

	Dollars in Millions							
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total	
Planning								
APPN or Fund 1 ton- Dev Mod								
Total Dev Mod								
Full Acquisition								
OPA 1 to - n Dev Mod	72.5	38.2	17.2	65.4	33.5	44.3	271.1	
Total Dev Mod	72.5	38.2	17.2	65.4	33.5	44.3	271.1	
Current Services/Maintenance								
APPN or Fund 1 to n-Current								
Service								
Total Current Service								
Total Resources by FY	72.5	38.2	17.2	65.4	33.5	44.3	271.1	

Part II. Justification: Provide Requested Justification Materials

A. Description/Performance Characteristics:

The Pentagon Renovation, Information Management and Telecommunications Project has been designated as an Other Major Special Initiative.

The Washington Headquarters Services (WHS), assisted by the U.S. Army Corps of Engineers (USACE) and the U.S. Army Material Command's (USAMC) Project Manager, Information Management and Telecommunications (PM, IM&T) is tasked with executing a comprehensive renovation of the Pentagon to transform the building into a modern office environment. This renovation will also modernize the 50-year-old Pentagon infrastructure facility services: heating, ventilation, and air conditioning; usable floor space; electricity; water; sewage; and, information management, video and telecommunications. PM IM&T has been assigned the specific mission of managing the planning, programming, systems design/development, acquisition, installation, integration, and testing of all IM&T-related efforts involved with the Pentagon Renovation program. The objective is to provide cost-effective voice, data and video services/capabilities that will best serve the needs of the DoD senior leadership by leveraging technology advancements and designing/developing integrated systems, well into the 21st century.

B. Program Management/Management Oversight:

The three organizations responsible for renovating the Pentagon are Washington Headquarters Service's Pentagon Renovation Office, the U.S. Army Corps of Engineers Resident Program Manager, and PM IM&T. Each organization has specific assigned missions and functions for the Pentagon Renovation Program and work closely together to manage and implement Renovation requirements, using Integrated Product Teams to optimize coordination action. Early in the project, the importance of information management and telecommunication (IM&T) within the Pentagon was recognized and the U.S. Army was tasked with establishing a project office for IM&T renovation related tasks. The Pentagon IM&T project office was established in late 1991. The mission of the PM IM&T, working in concert with the Resident PM, USACE, is to provide oversight for all IM&T initiatives associated with the Pentagon Renovation Program. The PM IM&T has an established formal review process for all IM&T requirements and provides monthly

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status of projects to tenant organizations. The current formal Program Management structure was established for the consolidated Pentagon Renovation Program in December 1997 when Mr. Walker Lee Evey assumed duties as the Program Manager, Pentagon Renovation. Mr. Evey reports directly to the Deputy Secretary of Defense. Monthly reviews have been established to provide the Pentagon Renovation PM status and comprehensive insight into the numerous projects associated with the renovation program. The DISC4 has been designated as the MDA for the PM IM&T as an Other Major Special Interest Initiative reporting through CECOM to USAMC.

PM IM&T, COE and WHS use an integrated program schedule to monitor program cost and schedule. The three organizations work closely together to manage and implement the Renovation requirements, using Program Office Integrated Product Teams to optimize coordination of actions. Monthly program reviews have been established to provide the Pentagon Renovation PM status and comprehensive insight into the numerous projects associated with the renovation program.

C. Contract Information:

To date the only PM IM&T unique contract has been the open competition of the Above Ground Telecommunications Backbone (ATB) to purchase, install, integrate and implement the voice, data, and video communications infrastructure in the above ground Pentagon. The contract is a multi-year Hybrid Fixed Price Indefinite Delivery/Indefinite Quantity (IDIQ) Award Fee contract awarded in August 98 to GTE Government Systems Corporation, Needham Heights, MA. The potential exists for additional IM&T unique project contracts to support initiatives for Basement Segments 2 and 3, Total Switch Architecture, and the Radio Room/Alternate Technical Control Facility. PM IM&T will continue to make maximum use of existing competed contracts, small business, or 8(a) contracts to satisfy other telecommunications requirements for the Pentagon Basement, Mezzanine, and Swing Space; procurement of Commercial Off-The-Shelf (COTS) hardware; and, relocation of existing IT/IS assets into consolidated or colocated facilities. Follow-on maintenance of the installed Telecommunications Backbone Infrastructure will be performed by the Single Agency Manager (SAM). PM IM&T has been coordinating definition of the Maintenance Concept with the SAM.

D. Architecture and Infrastructure Standards:

Selected architectures have been developed and validated with extensive user participation. Secondly, IM&T has worked with ODISC4, the project proponent, to ensure all selected architectures are compliant with the DoD Joint Technical Architecture. Finally, all IM&T installations are being performed in accordance with commercial standards and practices.

Current IM&T requirements included in this funding include the design, procurement, and integration of the equipment necessary to provide an automated information and telecommunication backbone for the renovated Pentagon. This cost specifically includes the hardware, software, cabling and testing to ensure backbone services meet Pentagon requirements. Other hardware procurements include those items deemed necessary to provide facility and system security and safety requirements for the renovated areas.

The IM&T backbone will serve as the transport system for all information and telecommunication systems that currently operate within and require interoperability with existing Pentagon systems. This architecture has been designed to serve as the backbone for existing automated information and telecommunication systems, those systems currently under development, and Pentagon system requirements for well into the 21st century. Installation of the Pentagon IM&T backbone is dependent upon the COE construction schedule. To assist in program control, an integration program schedule has been developed to closely monitor cost and schedule.

The approved technical approach for the IM&T physical and electronic infrastructure is one, which maximizes the procurement and use of standards-based COTS hardware and software products. It is tailored to the extent feasible to employ commercial practices in the purchase of commercial products or other non-developmental items (NDI), and emphasizes the early identification of support and supportability requirements.

E. Program Highlights

PM, IM&T FY99 accomplishments follow:

• Completed initial installation and cut-over of Phases I and II of the Pentagon Consolidated Technical Control Facility (PCTCF) in Basement Segment 1.

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- Completed initial installation and cutover of Phase I of the Network and Systems Management Center (NSMC) in Basement Segment 1.
- Accepted the Above Ground Telecommunications Backbone Architecture deliverable and approved architecture and detail design for Wedge 1 and have begun procurement of materials for the telecommunications infrastructure.
- Completed installation and cut-over of the telecommunications infrastructure for the Basement Segment 2A2.
- Completed installation and cutover for the move of the Air Force Operations Group in Basement Segment 1.
- Completed installation and cutover for the DIA Forsman Conference Room and DIA/J2 tenant classified space in Basement Segment 1.
- Completed installation and cutover for the Business ADP Facility 1 in Basement Segment 1.
- Completed installation and cutover for the Command and Control ADP Center
- Completed installation and cutover of the initial portion of the integrated switching systems in the General Purpose Switch Room to support Pentagon subscribers in renovated areas.

F. Financial Basis for Selecting the Project:

	Dollars in Millions									
	Sunk Costs	Sunk Costs FY00 FY01 FY02 FY03 FY04-N Total								
Total Resources by FY										
Total Resources by FY*	111.5	17.2	65.4	33.5	14.5	229.7	471.8			

^{*}This program does not follow the traditional acquisition process but the numbers reflect life cycle costs of program to date.

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

Management oversight of the overall Pentagon Renovation Program is coordinated between the Program Manager, Pentagon Renovation Office, PM IM&T and COE and is based on schedule and performance metrics developed for the program office. Construction and installation project milestones and cost performance are tracked via an integrated schedule covering COE and PM IM&T activities as well as tenant relocation events. Interdependencies between COE construction contracts and PM IM&T hardware and installation contracts are closely monitored to ensure schedule relationships are maintained.

Baseline Information:

The PM IM&T project office was established in 1992. The project receives funds from the Pentagon Reservation Maintenance Revolving Fund to pay for relocation activities and from Other Procurement Army (OPA) to pay for modernization initiatives.

	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total	
B. Previous Balance:	•							
Cost Goals (\$M)	73.7	37.2	16.0	69.7	36.0	118.88	351.48	
Schedule Goals (milestones)								
C. Baseline:								
Cost Goals (\$M)	72.5	39.0	17.2	68.0	36.7	56.4	289.8	
Schedule Goals (months)								
D. Current Estimate:	•							
Cost Goals (\$M)	72.5	38.3	17.3	65.9	33.8	44.8	272.6	
Schedule Goals (months)								
E. Variance from Baseline Goals:								
Cost Goals (\$M)	0	7	.1	-2.1	-2.9	-11.6	-17.2	
Schedule Goals (months)								

• No formal program baseline is required. Previous program estimates were revised as a result of guidance in late 1995 when the DEPSECDEF stopped construction efforts. In December 1996, work was resumed with a construction start date for Wedge 1 in January 1998, a greatly modified approach to swing space, and a revised allocation of space internal to the Pentagon. If the current Pentagon Renovation Baseline schedule is maintained, funding is sufficient in the FY00, FY01, and FY02 timeframe. Requirements have been submitted for FY03 and out. The Pentagon Renovation Program is sensitive to OSD and Congressional guidance, which could alter funding requirements.

F. Corrective Actions:

Schedule Goals: Milestones: N/A

Baseline (Milestone) Schedule	Last President's B	udget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Milestone, phase; increment 1-N			

Performance Goals:

The current FY00 and FY01 goals are:

- Continue installation and cut-over for additional phases of the Pentagon Consolidated Technical Control Facility (PCTCF) and the Network and Systems Management Center (NSMC) in Basement Segment 1.
- Complete purchase, installation and cut-over of the Above Ground Telecommunications backbone in Wedge 1, which is currently under construction.
- Continue purchase, installation and cut-over of telecommunications backbone equipment in areas of Basement Segments 2 and 3 as renovation continues.
- Continue engineering installation plans and detail design for the relocation of the remaining Service Operations Centers and the National Military Command Center (NMCC)..

G. Year 2000 Special Information:

Y2K Phase

	Previous President's Budget	Current Submission
Date of Accomplishment	FY99	FY99
Funding Estimate by Phase	\$650K	\$0
Estimate time that for full Y2K Compliance	FY99	FY99

IM&T Above Ground Telecommunications Backbone has been designed to be Y2K compliant.

Description Information:

Initiative Name and Acronym: Reserve Component Automation System (RCAS) Initiative Number: 1640
Project Activity/Mission Area: Functional Area Applications Area/Reserve Affairs
Date Project was initiated: Restructured Jan 96
Date of Last Acquisition Decision Memorandum (ADM): 8 Jan 98
Project is in IIIb Milestone, Approval Dated: 8 Jan 1998, Production/Deployment Phase as of current review.
Project Status: New Ongoing O
Information Technology Project: Yes No
Information Technology Project: Is this project a financial management system? Yes No I Yes No I
If yes, what percentage is financial%
Current Year 2000 Phase: Completed
Year 2000 System Status (non-compliant, compliant, funding available): Compliant
Projected Date for Completion: N/A
Mission Critical Status: Yes
Standard System Status: Yes
Organizational Information/Program Manager: COL Dennis L. Patrick, PM RCAS, and (703) 601-2691, Fax (703) 601-2583
Reserve Component Automation System, Jefferson Plaza 1, 1411 Jefferson Davis Hwy, Arlington, VA 22202-3231

Part I. Summary of Spending for Project Stages:

Program Activity: Functional Area Applications Area/Reserve Affairs

Project Name and Acronym: Reserve Component Automation System (RCAS)

		Dollars in Millions								
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total			
Planning										
Total Dev Mod										
Full Acquisition										
OPA	257.3	82.3	58.8	67.9	65.1	7.6	539.0			
Total Dev Mod	257.3	82.3	58.8	67.9	65.1	7.6	539.0			
Current Services/Maintenance										
OMNG	68.7	18.9	11.3	12.0	13.4	57.6	181.9			
OMAR	43.1	11.1	6.9	6.6	8.8	48.7	125.2			
OPA	71.6	33.9	23.9	23.6	23.9	11.1	188.0			
RPA	.7	1.1	1.2	1.2	1.2	4.1	9.5			
Total Current Service	184.1	65.0	43.3	43.4	47.3	121.5	504.6			
Total Resources by FY	441.4	147.3	102.1	111.3	112.4	129.1	1043.6			

The project is currently under funded by \$9.5M as measured against the approved Acquisition Program Baseline. This shortfall resulted from the application of multiple Program Budget Decisions within the Army during FY97 and FY98. The shortfall was identified in both the FY00-05 POM and FY01-05 Mini-POM, but remains an unfunded requirement. The Project has deferred requirements and identified the shortfall in the current FY02-07 POM cycle.

Part II. Justification:

A. Description/Performance Characteristics:

The Reserve Component Automation System (RCAS) is an automated information management system that will provide the Army the capability to administer, manage, and more effectively mobilize Army National Guard (ARNG) and United States Army Reserve (USAR) forces, as described in the approved Mission Need Statement (MNS), revalidated 5 March 1996.

The RCAS will support daily operational, training, and administrative tasks at all Guard and Reserve echelons, and provide timely and more accurate information with which to plan and support mobilization. When fully deployed, RCAS will link over 10,500 Guard and Reserve units at over 4,000 sites located in all 50 states, the District of Columbia, Guam, Puerto Rico, the Virgin Islands, Europe, and the Pacific Rim. Project goals and functional requirements are described in the approved RCAS Operational Concept Description (OCD) dated April 1996.

The RCAS project was restructured in FY 1995 to constrain cost growth, establish a realistic requirements baseline, and leverage new information management technology. In January 1996, the RCAS prime contract was modified to incorporate a new technical design, implement a new engineering management approach to software development, and provide a contract with more flexibility and a lower cost.

The RCAS project exists to correct major deficiencies in the Army's Reserve Component (RC) functional systems which impact on the Army Mission as reported in General Accounting Office Report titled, "General Management Review of the Reserve Components," May 1988. These deficiencies include:

- Current information systems are unable to provide timely and accurate information to decision makers to support mobilization planning.
- Lack of compatible software and common data elements.
- Little or no data communications between echelons.
- Excessive time needed to complete functions.
- Current systems do not comply with open systems standard architecture.
- Existing functional information procedures do not effectively support operations.
- Many of the data systems that support commanders are outdated.
- Automated data communications capabilities are limited at unit level and the capabilities that exist at senior management levels generally are not integrated.

The Army's mission is supported by the functions of mobilization planning and execution, monitoring unit status, implementing mobilization plans, deployment, and demobilization. The RCAS will further satisfy the day-to-day office automation requirements of the Army's Reserve Component (RC).

During the project restructure in 1995/1996, all aspects of the program were evaluated on a business basis using the principles of cost as an independent variable (CAIV) and fundamental business process reengineering.

The RCAS acquisition strategy focuses on an incremental and evolutionary approach.

Increment 1 provides the Project's infrastructure through Wide Area Network (WAN) inter-connectivity, COTS office automation software, and classified-capable and unclassified workstations. Increment 1 is an integrated package of state-of-the-art COTS hardware and software products selected to provide the user community an immediate capability to meet unit administration, mobilization, and communication needs.

Increment 2 introduced data servers and logistics functionality, and was deployed in a series of releases. In the first release (Release 2.0), three GOTS applications (Unit Level Logistics System-Ground (ULLS-G), Unit Level Logistics System-S4 (ULLS-S4), and Standard Property Book System-Redesign (SPBS-R)) were hosted to run on Microsoft Windows 95 as an interim host platform. Migration to the final RCAS architecture (Microsoft Windows NT) will follow when technically feasible. Subsequent releases will provide COTS upgrades and additional logistics functionality. This increment also addresses initial software encryption requirements.

Increment 3 will introduce force authorization, training, and human resources functionality. These functional areas will be addressed by both new development and hosting GOTS software (TAADS-R, RPAM, and TROUPERS) on the RCAS. Increment 3 also provides for transition to an ORACLE database management system, migration of the NMS and database servers from UNIX to NT, and an upgrade to the infrastructure via COTS products (e.g., Outlook 98, Internet Explorer 4.0, Project 98, and Jetform 5.1). This increment will also address the second phase of the software encryption requirements.

Future increments (4-7) will satisfy user-validated requirements in the order of priority established by the ARNG and USAR. Future increments will be defined in a "rolling wave," evolutionary process. Current plans for these increments include:

- Increment 4 will add logistics, occupational health management, training, and human resources functionality.
- Increment 5 will add force authorization, training, and human resources functionality.
- Increment 6 will add safety and risk management, human resources, logistics and force modernization functionality.
- Increment 7 will add logistics, human resources, safety, resource management, training, and information management functionality.

The RCAS software development strategy is based on a Rapid Application Development (RAD) methodology, utilizing object oriented (OO) techniques. This methodology makes use of prototyping techniques and both increases and improves user participation in refining requirements. In addition, the OO techniques enable the RCAS Project to migrate towards an "n-tiered" architecture, capitalizing on reuse and non-specific platform development. Applications are developed in small increments (time boxes) by teams

of 3-6 engineers. The use of time boxes to deliver products, coupled with the responsibility of each team to determine the detailed requirements of its assigned application, helps ensure stable requirements.

With the completion of Increment 7, the essential mobilization planning data will reside in the RCAS integrated database.

B. Program Management/Management Oversight:

Management of the RCAS Project consists of a Program Executive Officer (PEO) and a Project Manager (PM). The PEO is designated and delegated the full line authority from the Chief, National Guard Bureau (CNGB) and the Army Acquisition Executive (AAE) for the centralized management of the RCAS project. The PM is delegated the full line authority from the PEO for the centralized and financial management of the RCAS project. The U.S. Army Communication and Electronics Command (CECOM) Acquisition Center – Washington, located in Alexandria, VA manage the RCAS prime contract.

The RCAS project utilizes a joint DOD/DA Overarching Integrated Product Team (OIPT) in accordance with DOD Directive 5000.2 in managing the project. Utilizing this process, the RCAS project successfully achieved a Milestone IIIb decision with an Acquisition Decision Memorandum (ADM) signed on 8 January 1998.

Project management utilizes a full Earned Value Management System (formerly C/SCSC) to manage cost, schedule and technical performance and risks. The project has a comprehensive metrics program, and a risk management program that are integrated with the earned value reporting into monthly program reviews.

C. Contract Information:

Science Applications International Corporation (SAIC) Information Service Sector Corporation, Vienna, VA 22183 (Note: Contract initially awarded to Boeing Information Services in September 1991. SAIC acquired Boeing Information Services 23 July 1999.)

Program Management/Design - Cost-Plus Award Fee (CPAF) Software Development - Time & Material (T&M) Task Orders Hardware/Software - Indefinite Delivery/Indefinite Quantity (ID/IQ)

The contract, initially awarded in September 1991, was restructured 31 January 1996 with a new base year and six annual options. Core activities (project management, systems analysis, enterprise modeling, functional area planning, etc) are acquired under a cost-plus award fee (CPAF) contract. Task Orders are utilized for software development to allow flexibility and open competition. Hardware is acquired on an Indefinite Delivery/Indefinite Quantity (ID/IQ) basis, which maximizes flexibility and responsiveness to changing technology.

The RCAS contract was awarded under the provisions of OMB Circular A-109. System performance goals and parameters are specified in the Acquisition Program Baseline (APB) and the contractor's system and sub-system specifications and address such considerations as response times, access times, support response, security and reliability.

D. Architecture and Infrastructure Standards:

The RCAS is compliant with the Joint Technical Architecture – Army (JTA-A) and has an approved migration plan, which includes a strategy to support the operation on the Defense Messaging System (DMS). The RCAS is working towards compliance with the Defense Information Infrastructure Common Operating Environment (DII COE) by FY 2002.

Of the approximately 56,000 workstations in the final RCAS solution, 43,500 are being supplied through project funding and 2,500 through reuse of existing assets. The remaining 10,000 are being provided by the Army National Guard and Army Reserve. All other hardware is being procured with RCAS project funding. All hardware and software components procured through the contract are delivered by the contractor under the terms of the contract agreement utilizing "best commercial practices." Data transmission requirements are met through a telecommunications architecture that is initially funded by the RCAS project, with recurring operational costs supported by the using organizations. Existing telecommunications are utilized when technically feasible.

The restructured RCAS consists of commercial off-the-shelf (COTS) hardware and office automation (OA) software, government off-the-shelf (GOTS) software, and newly developed software applications integrated into an open system, personal computer based architecture. The acquisition strategy stipulates the priority for acquiring software as: 1) GOTS products that fulfill functional requirements; 2) COTS; and as a last priority if no GOTS or COTS are available to fulfill the requirements, 3) new development.

E. Program Highlights:

The RCAS is a modern automated information management system that will provide the Army the capability to administer, manage, and more effectively mobilize Army National Guard (ARNG) and U.S. Army Reserve (USAR) forces, and improve the management of supporting administrative processes in the Reserve Components (RC). To this end, the RCAS will:

- Provide an integrated system to support the decision-making needs of all commanders and staff responsible for RC force readiness, mobilization planning, and mobilization execution.
- Provide verification and validation of the information in the system by the peacetime chain of command (including operational control) after data are entered at their source.
- Provide efficient data sharing throughout the system and with external systems to avoid redundant data entry, reduce errors, and improve the capability to handle the wartime surge in operations workload.
- Provide processing and transmission of classified data within the system.
- Provide data processing and office automation down to the unit level to improve the accomplishment of supporting administrative tasks.
- Develop RCAS in harmony with Army automation architecture planning and those systems with which the RCAS must interface.
- Provide for a continuous operational processing capability to the user when located either at or away from home station.
- Provide a system capability that ensures all users are operating on the compatible software version concurrently.
- Provide a continuous assessment and integration of technological advances in the industry.

• Provide for compliance with and incorporation of emerging Department of Defense and Department of the Army standards and policies for automated information systems.

RCAS project accomplishments to date include:

- Fielded 49,573 of 56,204 (89%) PCs to date; 51,892 (93%) by the end of FY 2000.
- 53 of 94 (57%) commands completed to date; 58 (62%) by the end of FY 2000.
- All State Area Commands (STARC), Regional Support Commands (RSC), and Direct Reporting Commands (DRC) have connectivity to Wide Area Network.
- Fielded Increment 2 data and applications providing logistics functionality, training, internal review, and COTS upgrades.
- Developed Increment 3 data and applications introducing force authorization and human resources functionality, security, and continuation of training functionality. Currently rescheduled for testing and deployment in FY 2000.
- Providing GOTS, COTS and new development software applications for 11 functional areas in accordance with RC designated priorities. Delivered over 59% of the 60,068 planned function points to date, 23% of which results from deployment of Office Automation.
- Completed System Security Accreditation early.

Other accomplishments:

- System Capabilities enhancements to include:
- Upgraded cable plant to 4-pair CAT V to accommodate system growth and increased capacity while reducing lifecycle costs.
- Implemented MS Exchange for email to provide more robust product and simplified management.

- Teamed with Distance Learning to migrate ARNG STARCs to ATM backbone sharing acquisition and deployment costs.
- Added Frame Relay capability for small sites to increase throughput and reduce life cycle costs.
- Upgraded random access memory (RAM) to 32 megabytes to maintain system performance.
- Expanded RCAS System Support Center (SSC) to add Home Page and ARNG/USAR Network Control Centers.

Operational Enhancements to Email include:

- Reduced turnaround time for military orders (from unit request to published order) from 60 days to 2 days (MN ARNG); 1,900 orders were processed in 4 days (ME ARNG).
- Allowed units deployed to Bosnia to correspond directly with their units and State Area Commands.
- Improved staff coordination, e.g., staff notes, trip reports, training schedules, etc. Reduced mail and printing costs by 40% (MN ARNG).
- Provided command and control of disaster operations (Midwest floods/Guam).
- Greatly facilitates command and control functions.

Other Enhancements:

- RCAS network provides the unit commander access to current personnel information (ARNG/USAR).
- More timely pay to soldiers (ARNG/USAR).
- Automated processing of classified information.

F. Financial Basis for Selecting the Project:

	Sunk Cost	FY00	FY01	FY02	FY03	FY04-N	Total
APB Total Resources by FY	686.3	211.1	229.1	274.3	246.9	763.0	2410.7
Rebaseline Total Resources by FY							

The Life Cycle Cost was derived from the OSD MAISRC (OIPT) Milestone IIIa decision and represents the approved Army Cost Position per the Army Cost Review Board 19 September 1996 as updated for the Milestone IIIc Review December 1999. Costs incurred in the years prior to the restructured project (FY88-95) in the amount of \$842.9M are not included in the costs shown above. The current Acquisition Program Baseline (APB), as updated for the Milestone IIIc Review, was approved December 1999. A complete cost/benefit analysis was performed for Milestone II and updated for Milestone III.

The overall project has an ROI of 6.8:1 and the system infrastructure (Increment 1) has an ROI of 12.2:1. The benefits include savings that accrue through the use of automation versus manual processing, and the cost avoidance associated with the efficiency gains of automation. Several intangible benefits were also identified including elements such as the improved accuracy and timeliness of unit data, the utilization of RCAS by the RC in support of disaster relief activities, and connectivity between state commands and units deployed in Bosnia.

The RCAS is being procured under the provisions of OMB Circular A-109 where industry responded with three different technical solutions. The formal source selection process involved analysis of each alternative and a competitive demonstration before selecting the best alternative that satisfied functional requirements. Additional analyses of alternatives are performed at each major Milestone Review and focus on various architectural options, fielding schedules, usage projections, and software development estimates.

The key assumptions in the development of the life cycle cost estimates were the projected force structure of the Army National Guard and the Army Reserve, forward pricing curves for hardware components, and stability in telecommunications rates.

The risk areas identified in the development of the life cycle cost estimate were the accuracy of the productivity projections for software development; telecommunications usage; availability and usability of externally provided data; and the accuracy of hardware cost projections. Sensitivity analysis was performed in each of these areas, and adequate allowance for uncertainty was made in the projection.

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total			
B. Previous Balance:										
Cost Goals (\$M)	441.8	142.0	111.6	116.9	119.5	-	931.8			
Schedule Goals (milestones)										
C. Baseline:										
Cost Goals (\$M)	447.4	138.3	102.2	110.7	113.1	128.7	1040.4			
Schedule Goals (months)										
D. Current Estimate:										
Cost Goals (\$M)	441.4	147.3	102.1	111.3	112.4	129.1	1043.6			
Schedule Goals (months)										
E. Variance from Baseline Goals:										
Cost Goals (\$M)	-6.0	9.0	1	.6	7	.4	3.2			
Schedule Goals (months)										

Baseline Information: The acquisition program baseline (APB) was established and approved in July 1996 and remains valid as updated for Milestone Decision IIIb, November 1997, and Milestone IIIc review, December 1999. The costs denoted are the total funds necessary to satisfy RCAS Increments 1 through 7 requirements. The incremental, or evolutionary development process of the RCAS, will further amend the baseline to separately address each increment being added to the project.

The RCAS project provides for developing and fielding a total system solution that includes hardware, software, and telecommunications architecture. The RCAS Project Management Office continuously interacts with other Army commands and DOD agencies to eliminate potential duplicative or redundant requirements, and to capitalize on cost saving initiatives where possible.

Changes in the baseline estimates result from the following:

- Application of multiple Program Budget Decisions within the Army during FY97 and FY98 that resulted in a Project shortfall of \$9.5M as measured against the approved Acquisition Program Baseline. The shortfall was identified in both the FY00-05 POM and FY01-05 Mini-POM, but remains an unfunded requirement. The Project has deferred requirements and identified the shortfall in the current FY02-07 POM cycle.
- Cumulative Total FY1998 and prior contained a duplicate \$6M cost in the previous submission.
- FY 1999 current estimate includes \$9.5M of Y2K supplemental funding to address Y2K related requirements.
- Application of other economic adjustments (inflation) for FY2000-FY2005 since previous submission.

F. Corrective Actions:

The Project utilizes a fully integrated business management approach that provides for early and accurate determination of the Project's progress. The Project's use of earned value management, coupled with integrated baseline reviews, extensive program metrics and an active risk management program allow for early detection of variances. These processes, combined with a flexible contract vehicle, provide maximum early response and corrective actions.

Schedule Goals:

Milestones. Listed below are the major events and milestones in the RCAS life cycle. The dates shown represent the target or objective date. Per DoD 5000.2-R, the threshold dates are three months later than the objective date.

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Baseline (Milestone) Schedule	FY00 President's l	Budget (Month Year)	FY01 President's Budget (Month Year)
	Approved	Achieved	Approved/Estimated
Milestone 0		Jul 87	
Milestone I		Sep 89	
Milestone II		Nov 91	
Red Team Assessment		Feb 95	
Validation Assessment Team Review		Apr-Jul 95	
Contract Restructure		Jan 96	
In-Process Review (IPR) – Integrating		Jun 96	
Integrated Process Team (IIPT)			
Integrated Baseline Review (IBR)		Jul 96	
Increment 1 Operational Test (OT)		Aug 96	
Milestone IIIa (Increment 1 Fielding		Sep 96	
Decision			
In-Process Review (IIPT)	Dec 96	Mar 97	
Increment 2 Operational Test	Jul 97	Oct 97	
Milestone IIIb (Increment 2 Fielding	Sep 97	Jan 98	
Decision)			
Integrated Baseline Review	Jan 98	Mar 98	

Near-Term Milestones:

Baseline (Milestone) Schedule	FY00 President's B	udget (Month Year)	FY01 President's Budget (Month Year)
	Approved	Achieved	Approved/Estimated
In-Process Review (IIPT)			Apr 99
Increment 3 Operational Test	4 th Quarter, FY98		Sep 99 ^{1,2,3}
Milestone IIIc (Increment 3 Fielding	4 th Quarter, FY98		Oct 99 ^{1,2,3}
Decision)			
Increment 4 Operational Test	4 th Quarter, FY99		Mar 00 ³
Milestone IIId (Increment 4 Fielding	4 th Quarter, FY99		May 00 ³
Decision)			•
In-Process Review (IIPT)	1st Quarter, FY00		Jul 00 ³
Integrated Baseline Review	1st Quarter, FY00		1st Quarter, FY00
Increment 5 Operational Test	4th Quarter, FY00		4th Quarter, FY00
Milestone IIIe (Increment 5 Fielding	4th Quarter, FY00		Oct 00 ³
Decision)			

Note:

- 1. During the Milestone IIIb review in November 1997, the Increment 3 Fielding Decision (MS IIIc) was modified from July 1998 to October 1998. This modification did not extend the milestone date beyond the threshold value.
- 2. During the July 1998 IPR (IIPT), the baseline schedule for Increment 3 (MS IIIc) was modified from October 1998 to July 1999. This modification was incorporated to accommodate additional Force Authorization requirements, the transition to an NT database server, the transition from the SyBase to Oracle Relational Database Management System (RDBMS), and the introduction of File Transfer Protocol for data exchange. The IIPT approved this modification to the schedule.

3. During the April 1999 IPR (IIPT), the baseline schedule for Increment 3 was modified from July 1999 to October 1999. This modification occurred as a result of DOD direction requiring that the Project address Year 2000 as its principal priority. Additional impacts of this direction included modifications to the baseline schedules for Increment 4 (MS IIId changed from 4th Quarter, FY99 to 3rd Quarter, FY00) and Increment 5 (MS IIIe was changed from 4th Quarter, FY00 to 1st Quarter, FY01). The IIPT approved this modification to the schedule.

Mid Term Milestones:

Baseline (Milestone) Schedule	FY00 President's B	udget (Month Year)	FY01 President's Budget (Month Year)
	Approved	Achieved	Approved/Estimated
In-Process Review (IIPT)	1 st Quarter, FY01		1 st Quarter, FY01
Integrated Baseline Review	1 st Quarter, FY01		1 st Quarter, FY01
Increment 6 Operational Test	4 th Quarter, FY01		4 th Quarter, FY01
Milestone IIIf (Increment 6 Fielding	4 th Quarter, FY01		4 th Quarter, FY01
Decision)			
In-Process Review (IIPT)	1 st Quarter, FY02		1 st Quarter, FY02
Integrated Baseline Review	1 st Quarter, FY02		1 st Quarter, FY02
Increment 7 Operational Test	4 th Quarter, FY02		4 th Quarter, FY02
Milestone IIIg (Increment 7 Fielding	4 th Quarter, FY02		4 th Quarter, FY02
Decision)			

The fully integrated business management approach provides for early and accurate determination of the project's progress. The project's use of earned value management, coupled with integrated baseline reviews, extensive program metrics and an active risk management program allows for early detection of variances. These processes, combined with a flexible contract vehicle, provide

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maximum early response and corrective actions. The total contract cumulative schedule performance through November 1999 reflects a variance of 0%.

G. Year 2000 Special Information:

Y2K Phase: Completed

	Previous President's Budget	Current Submission
Date of Accomplishment	7/15/99	N/A
Funding Estimate by Phase		
Estimate time that for full Y2K Compliance	7/15/99	N/A

The RCAS project is considered a new development program, however two critical components required modification for Year 2000 compliance. These two components were certified Level 2 compliant by the Army Audit Agency on 2 November 1999 and were successfully installed by the customer community.

Release 2.1 – current RCAS product baseline that includes commercial off the shelf (COTS) hardware and software, government off the shelf (GOTS) software, and developed application software.

- End-to-End Y2K testing was successfully completed on RCAS Release 2.1 during June 1999.
- Release 2.1 was certified Y2K compliant on 25 June 1999.
- GOTS products, specifically Standard Army Property Book System- (Redesign) (SPBS-R), Unit Level Logistics System-S4, (ULLS-S4) and Unit Level Logistics System-Ground (ULLS-G), currently in the RCAS product baseline have been upgraded by

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the materiel developer and provided to the RCAS for test and evaluation on the RCAS platform. The RCAS project has validated and deployed these products to the field.

- The RCAS project continuously monitored the installation of Release 2.1 at RCAS sites, and provided engineering teams for onsite assistance to users as necessary for installation of Release 2.1.
- Release 2.1 has no external interfaces.

Retirement Points Accounting Management (RPAM) software for the Army National Guard.

- Accelerated software development required as replacement for a non-compliant legacy system.
- End-to-End testing was completed 10-12 August 1999.
- RPAM was certified on 1 September 1999 and installation by the customer community was completed 13 December 1999.

In response to a Department of Defense/Department of the Army (DOD/DA) solicitation for Year 2000 funding requirements, the RCAS project identified \$9.5M as necessary to support accelerated fielding requested by the Army National Guard (ARNG) and the US Army Reserve (USAR) in FY99 to mitigate their Year 2000 impacts. The DOD/DA validated the RCAS requirement and provided the project with \$9.5M to support system end-to-end testing and accelerated fielding of RCAS hardware and software to the ARNG and USAR.

Description Information:

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Standard Installation/Division Personnel System (SIDPERS-3)
Project Activity/Mission Area: Functional Area Applications Area/Military Personnel and Readiness

	Dollars in Millions							
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total	
Planning								
Total Dev Mod								
Full Acquisition								
OPA	31.3	11.2	5.5	6.9	4.9	15.5	75.3	
OMA	81.9	4.4	7.2	0.0	0.0	0.0	93.5	
RDTE	0.0	0.0	0.0	9.2	6.2	15.5	30.9	
Total Dev Mod	113.2	15.6	12.7	16.1	11.1	31.0	199.7	
Current Services/Maintenance								
OMA	40.3	5.1	1.2	1.6	.8	5.9	54.9	
MPA	.2	.2	.2	.2	.3	.8	1.9	
Total Current Service	40.5	5.3	1.4	1.8	1.1	6.7	56.8	
Total Resources by FY	153.7	20.9	14.1	17.9	12.2	37.7	256.5	

Part II. Justification: Provide Requested Justification Materials

A. Description/Performance Characteristics:

SIDPERS-3 is a major Army automation initiative developed under the proponency of the Deputy Chief of Staff for Personnel (DCSPER). It will provide commanders and managers the necessary personnel information to make informed decisions regarding military personnel resources. SIDPERS-3 will serve the Active Army during peacetime and all components, Active, National Guard and Army Reserve during mobilization and war. The system will support modernization of the force and will provide critical personnel information consistent with tactical doctrine for the installation and field echelons of command within and outside the Continental United States (CONUS and OCONUS). This information system is essential for providing command and control personnel data, accurate strength accounting and timely replacement of information necessary to sustain and account for the force and personnel/pay functions. SIDPERS-3 will interface initially with the Defense Joint Military Pay System (DJMS), The Army Authorization Document System-Redesign (TAADS-R), Theater Army Medical Management Information System (TAMMIS), and the Reception Battalion Automated Support System (RECBASS). A vertical interface to the Total Army Personnel Data Base (TAPDB) is also required. SIDPERS-3 is being developed by a central design activity (CDA) - Software Development Center - Washington (SDC-W) which provides software development and maintenance support. On 1 Oct 1999, Electronic Data Systems (EDS) will assume development responsibilities for SIDPERS-3. Additional matrix support includes architectural development, systems engineering, systems integration, standard development testing, installation, cost estimates, cost analysis, technical review of documents, technical requirements definition, metrics and other quality assurance functions.

SIDPERS-3 replaces the Active Army, USAR and NG systems with one standard software system for wartime operations and supports the Active Component in peacetime. SIDPERS-3 is a major contributor to the Total Army Personnel Database (TAPDB) and is to be the cornerstone of a more reliable and responsive automated personnel information system in support of basic Army missions.

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The business process was reviewed by PERSCOM during development in the 1980s. SIDPERS-3 is replacing SIDPERS-2, 2.5 and 2.75. SIDPERS-3 was reengineered to use DBMS technology in a modified client server environment. The business process supported by SIDPERS-3 will be reengineered during the design/development process for the DoD standard system, which is scheduled to replace SIDPERS-3 sometime after 2005.

The SIDPERS-3 costs and operational benefits (productivity improvement, cost avoidance and sustainment savings) were re-validated by the U.S. Army Cost and Economic Analysis Center in September 1998 and were presented to the DA/OSD MAISRC in September 1998. The data is reported in millions of constant FY 1998 dollars. The Return on Investment was validated by CEAC in September 1998 using calculations based on DoD AIS Analysis Model dated 1 May 1995 and using 1998 as the base year.

B. Program Management/Management Oversight:

The Functional Proponent for SIDPERS-3 is the DCSPER. The Project Manager (PM) for SIDPERS-3 is assigned to the Program Executive Officer (PEO), Standard Army Management Information Systems (STAMIS) who reports directly to the Army Acquisition Executive (AAE). CECOM Acquisition Center, Washington is the contracting office for SIDPERS-3.

This project uses an Integrated Project Teams approach, i.e., configuration management, risk management, testing, schedule, and cost.

The OSD Information Technology Overarching Integrated Process Team (IT-IIPT) delegated to the Army (5 May 1999) oversight responsibility of the SIDPERS-3 project. The Acquisition Program Baseline (APB) documents all cost, schedule, and technical performance criteria. Performance goals are defined in task performance of Mission Essential Tasks (MET) and non-METs. A number of controls are in place to monitor the technical performance of matrix support organizations, including periodic reviews at various levels and management plans to ensure proper methodologies and procedures are followed. Monthly project status and metrics reports are used. Development, system qualification, operational and evaluation testing is also conducted. The Test and Evaluation Master Plan (TEMP) established management oversight over the testing program.

PM SIDPERS-3 has developed a Risk Management Plan that identifies risk descriptions, their initiating events and appropriate mitigation/contingency strategies. The risks are ranked using the probability of occurrence, impact and timeframe. The PMO Risk Management IPT meets regularly to review, add or close risks.

Software Development Center – Washington (SDC-W), the software developer, also has a Risk Management Plan organized in the same manner as the PMO plan. The SDC-W Risk Management IPT meets monthly to review, add or close risks.

C. Contract Information:

Contract names; prime contractor:

Hardware: SIDPERS-3 purchases hardware from one contract. The STAMIS Computer Contract (SCCII) was awarded to Government Technology Services, Incorporated (GTSI), Chantilly, Virginia in October 1997.

Software: SIDPERS-3 was developed by Statistica, Inc. in Chantilly, Virginia. Software Development Center – Washington, a CDA of CECOM, was the primary developer/maintainer of the system from 1994 until 30 Sep 1999. On 1 Oct 1999, EDS assumed Post Development Software Support (PDSS) responsibility and will act as the primary developer of the system.

Additional matrix support, all government, includes architectural development, systems engineering, systems integration, standard development testing and installation. Cost estimates, cost analysis, technical review of documents, technical requirements, metrics and other quality assurance functions.

Type of contract: The Hardware Contract, Small Computer Contract II (SCCII) is a competitive Indefinite Delivery Indefinite Quantity (IDIQ) Contract.

Hardware contract is cost and delivery date based.

D. Architecture and Infrastructure Standards:

SIDPERS-3 complies with Common Operating Environment – Army. Both Operating System (SCO UNIX) and Relational Data Base Management System (Informix) have been submitted for validation into the Defense Integrated Infrastructure suite. Although still primarily character based, Graphical User Interface technology will be used as it becomes available from the developers.

Infrastructure Strategy:

- PM SIDPERS-3 procures all SIDPERS-3 hardware requirements.
- Transport: PM SIDPERS-3 satisfies transport requirements by using existing Army infrastructure.
- PM SIDPERS-3 procures all SIDPERS-3 hardware requirements. There are no infrastructure requirements for SIDPERS-3.
- Commercial-off-the-Shelf (COTS)-based with Government-off-the-Shelf (GOTS) developed applications.

E. Program Highlights.

- On 15 Oct 99, SIDPERS-3 completed fielding to all Active Army units. Focus shifts to Army Reserve and National Guard fielding.
- On 1 Oct 99, Electronic Data Systems (EDS) became the prime developer for SIDPERS-3, replacing the Software Development Center-Washington (SDC-W). Development operations moved from the SDC-W location in Fairfax to the EDS facility in Herndon, VA. There was no disruption of services during this move.
- On 15 Nov 99, SIDPERS-3 released Interim Change Package (ICP) 04-06-01 to correct functionality associated a SCO Unix Operating System update to the real time clock, the SIDPERS-3 Unit Manning Report, European only data processing, and added information assurance enhancements.

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• 30 Nov 99, SIDPERS-3 and USAPERSCOM's Field Systems Directorate and Personnel Service Support Division presented the ADCSPER an update on the status of PerPay development. The message to the ADCSPER was SIDPERS-3 has been moving on PerPay development, however, investments were still needed for technology insertion to the base SIDPERS-3 program, including the programming language, the OS, and possibility the architecture. This investment is needed to position the Army to continue personnel functionality long term under the umbrella of the impending joint system known as Defense Integrated Military Human Resources System (DIMHRS).

F. Financial Basis for Selecting the Project:

	Dollars in Millions										
	Sunk Costs										
APB Total Resources by FY	206.4	12.3	12.2	14.0	12.3	0	257.2				
Rebaseline Total Resources by FY	159.4	14.2	18.1	12.2	13.3	66.7	283.9				

Previous 300b submission included in sunk costs FYs 2001 and prior. This submission's sunk costs in the Rebaseline total reflects FY99 and prior.

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

Baseline Information: FY 82, Rebaseline FY 98

	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total
B. Previous Balance:							
Cost Goals (\$M)	206.4	12.3	12.2	14.0	12.3	0	257.2
Schedule Goals (milestones)							
C. Baseline: (00 Pres Bud)							
Cost Goals (\$M)	153.5	20.7	13.9	14.5	12.1	38.0	252.7
Schedule Goals (months)							
D. Current Estimate: (BES							
Lock)							
Cost Goals (\$M)	153.5	20.7	13.9	17.8	11.9	36.9	254.7
Schedule Goals (months)							
E. Variance from Baseline Goals	•						
Cost Goals (\$M)	0	0	0	3.3	-0.2	-1.1	2.0
Schedule Goals (months)				·			

• Rebasedlined since initial program establishment: SIDPERS-3 was rebaselined 25 September 1998.

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- Slippages since the FY00 President's Budget: None.
- Variance from FY00 President's Budget: FY01 dollars increased as a result of Per/Pay Lite. In FY96, OSD directed the Army to integrate personnel and pay functions as a result of persistent out of service debt problems and personnel/pay data inconsistencies. The Per/Pay objective is a seamless personnel and pay process utilizing single source data entry which minimizes rekeying of information, reducing mismatches and out-of-service debt. To accomplish this, 84 pay events are required at a cost of \$20M. PerPay Lite is a compromise solution that contains functionality to help reduce out of service debt and moves personnel and pay closer to full integration.

F. Corrective Actions:

Schedule Goals:

Milestones

Baseline (Milestone) Schedule	Last President's Bu	udget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Army Milestone 0	4QFY1982		
Army Milestone I	1QFY1985		
Army MAISRC IPR	3QFY1989		
OSD MAISRC IPR	4QFY1989		
Army MAISRC Milestone II	4QFY1991		
OSD MAISRC Milestone II	2QFY1992		
Army MAISRC Milestone III IPR	2QFY1996		
OSD MAISRC Milestone III IPR	2QFY1996		
Army MAISRC Milestone III		15 Oct 98	
OSD MAISRC Milestone III		15 Oct 98	

Performance Goals:

The MNS for SIDPERS-3 was revalidated by the ADCSPER and ASA (M&RA) in July 1994. The performance goals identified include:

- Decentralized processing stand alone capability at each level of decision making
- Capability to support C2 strength reporting system battlefield requirements
- Capabilities to do in peace what will be done in war
- Mobilization system will provide essential personnel data to support rapid and efficient mobilization and demobilization
- Deployability system will be capable of rapid deployment/employment to support ground commanders and combat forces with critical and continuous personnel information
- Survivability withstand enemy combat activity
- Dependability high level of reliability, availability and maintainability in tactical and garrison environments
- Interfaces system will be designed to operate with existing and emerging COE
- Responsiveness time sensitive information will be rapidly available
- Continuity of operations system will employ standardized software which is capable of operating in an open systems environment (OSE) and which provides sufficient database redundancy at operational levels
- Garrison personnel operations capability to provide personnel information at the installation following the deployment of tactical units
- Wartime system will meet all functional management requirements for performance in the theater of operations
- Security system information processing will meet the requirements of the Privacy Act of 1974 and the security requirements established in AR 380-19
- Data standardization system will meet the data standardization requirements as prescribed in AR 25-9 to the maximum extent possible

G. Year 2000 Special Information:

Y2K Phase: Implementation

_	Previous President's Budget	Current Submission
Date of Accomplishment	15 Oct 99	15 Oct 99
Funding Estimate by Phase	\$139K-Validation	\$139K Validation
	\$3.8M Implementation	\$3.8M Implementation
	_	\$95K End-to-End Testing
Estimate time that for full Y2K Compliance	15 Oct 99	15 Oct 99

- Additional fielding costs of \$3.8M have been identified for condensing SIDPERS-3 fielding from 36 to 12 months to ensure fielding of system prior to Y2K. These dollars have been funded through the Y2K supplemental.
- The total cost for Y2K validation efforts is \$139K. Because SIDPERS-3 was designed as the Y2K solution, these costs are additional testing costs.

Description Information:

Initiative Name and Acronym: : <u>Transportation Coordinators' Automated Information for Movement System II (TC-AIMS II)</u>
Initiative Number: 1935
Project Activity/Mission Area: Logistics
Date Project was initiated: January 1997
Date of Last Acquisition Decision Memorandum (ADM): 21 July 1997
Project is in Combined Phase I & II, Approval Dated: 21 Jul 1997, Requirements Definition & Risk Reduction, Engineering
Manufacturing as of current review.
Project Status: New Ongoing
Information Technology Project: Yes ⊠ No □
Is this project a financial management system? Yes \sum No \times
If yes, what percentage is financial%
Current Year 2000 Phase: New Development Post 2000
Year 2000 System Status (non-compliant, compliant, funding available): Compliant, New system being developed to be Year 2000 compliant
Projected Date for Completion: 08/30/2000
Mission Critical Status: No
Standard System Status: Yes
Organizational Information/Program Manager: Dixie Gray/PEO STAMIS/Phone: (703) 806-3245; LTC (P) Jacob Haynes/
PO TC-AIMS II/ Phone: (703) 806-0525, PEO STAMIS, ATTN: SFAE-PS-TC, 9350 Hall Rd., Suite 142, Ft. Belvoir, VA 22060

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Transportation Coordinators' Automated Information for Movement System II (TC-AIMS II) Project Activity/Mission Area: Logistics

	Dollars in Millions								
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total		
Planning									
Total Dev Mod									
Full Acquisition									
OMA	26.9	9.6	19.5	0.0	0.0	0.0	56.0		
OPA	6.8	2.7	18.8	10.4	25.4	10.8	74.9		
RDT&E	0.0	0.0	0.0	8.1	9.9	24.8	42.8		
Total Dev Mod	33.7	12.3	38.3	18.5	35.3	35.6	173.7		
Current Services/Maintenance									
OMA	5.6	8.6	11.2	7.4	7.6	23.1	63.5		
MPA	.1	.1	.1	.1	.1	.3	.8		
Total Current Service	5.7	8.7	11.3	7.5	7.7	23.4	64.3		
Total Resources by FY	39.4	21.0	49.6	26.0	43.0	59.0	238.0		

Part II. Justification: Provide Requested Justification Materials

A. Description/Performance Characteristics:

TC-AIMS II, a joint management information system, will consolidate management of the unit/installation-level transportation functions of Unit Movement, Load Planning and Installation Transportation Office/Traffic Management Office (ITO/TMO) operations into a single automated capability for use throughout the Department of Defense (DoD). TC-AIMS II will provide a common hardware suite running software applications designed for easy data retrieval and data exchange and connectivity to relevant external sources. Open systems architecture is emphasized throughout for standardization and interoperability and for ease of future system growth and maintenance. TC-AIMS II replaces a collection of five unit movement and ITO/TMO systems that evolved from each Service's perspective of its business practice. It provides the warfighter access to more accurate, complete, and timely deployment/redeployment data through the Global Transportation Network (GTN) and directly supports effective command and control through GTN's Intransit Visibility (ITV) capability.

TC-AIMS II supports defense guidance to develop and implement support systems, which provide "rapid strategic mobility and sufficient support and sustainment capability." TC-AIMS II facilitates the movement and support of personnel and cargo during all phases of military operations in all environments, including sustainment; reception, staging, onward movement and integration (RSO&I); and battlefield operations. This capability will be used by: deploying units; units/activities assisting in the deployment; units/activities supporting daily movement missions as part of the Defense Transportation System (DTS); and command and control (C2) headquarters which support the deployment and employment of forces from every Service. TC-AIMS II provides a single system capable of supporting single Service, Joint or Combined Operations. TC-AIMS II will assist in maintaining U.S. qualitative superiority in support of national defense in key warfighting capabilities by providing the warfighting Commanders-in-Chief (CINC) with total asset visibility.

In October 1993, the Secretary of Defense issued a memorandum containing guidance for a thorough vertical and horizontal integration of Defense AIS's. The Office of the Deputy Under Secretary of Defense (Logistics) (DUSD (L)) directed the CINC USTRANSCOM Joint Transportation Corporate Information Management Center (JTCC) to review and analyze more than 149 Defense Transportation Systems (DTS); make migration system recommendations; oversee development of requirements; and monitor implementation of the transportation migration systems. In February 1995, JTCC recommended 23 legacy systems for migration to the DUSD (L). TC-AIMS II was nominated as the migration system in two categories - Unit movement, ITO/TMO. The DUSD (L) recommended the ASD(C3I) approve the transportation system selection in March 1995. The ASD (C3I) approved these migration selections in July 1995. TC-AIMS II FY97 funding provided to the US Army in Program Decision Memorandum (PDM) II (Sep 95) was based on the JTCC evaluation of alternatives and cost estimates contained in JTCC Integration Decision Papers (IDP). USD (A&T) designated the US Army TC-AIMS II executive agent on 29 November 1995 with direction for all Services to realign legacy system development funding with USA TC-AIMS II funding and for the USA to POM for future TC-AIMS II requirements. FY98-03 funding requirements provided by the August 1996 PDM I were based on adaptation of the JTCC IDP analysis of alternatives and a preliminary cost analysis by the project office. The ASD(C3I(A)) Acquisition Decision Memorandum (ADM) of January 1997 provided program initiation approval as recommended by a working level Overarching Integrated Product Team review in December 1996.

B. Program Management/Management Oversight: The DUSD (L) is the principal staff activity (PSA) for TC-AIMS II. The Headquarters Department of the Army (HQDA) Office of the Deputy Chief of Staff for Logistics (ODCSLOG) executes the designated USA lead Service responsibilities and provides functional proponency for USA actions. The Joint Chiefs of Staff (JCS) J-4 is the Logistics Mobility and Sustainment process owner. TC-AIMS II is managed by Project Officer (PO), TC-AIMS II. PO, TC-AIMS II is assigned to the Program Executive Officer (PEO), Standard Army Management Information Systems (STAMIS) who reports directly to the Army Acquisition Executive (AAE). The Department of Transportation Acquisition Support Center provides contracting support under its Information Technology Omnibus Procurement (ITOP) contract vehicle.

There are seven Integrated Product Teams (IPTs) chartered and chaired by the Project Office. The IPTs are: Test and Evaluation, Requirements, Technical, Cost, Integrated Logistics Support, Security and Communications. Additionally, a DoD Overarching Working-Level IPT (WIPT) periodically reviews the program.

The Joint Requirements Oversight Council (JROC) approved the Operational Requirements Document (ORD) in March 1999. Based on the final ORD and independent engineering assessments of the software complexity and sizing, an Acquisition Program Baseline is in development. Earned value measures are used to monitor development cost and schedule. In June 1997 JTCC declared Department of the Army Movement Management System-Redesigned (DAMMS-R) a legacy system and directed its migration to TC-AIMS II. DAMMS-R funding migrated to TC-AIMS II in FY 99.

C. Contract Information: Contract names and prime contractor: Initial Development Contract: Defense Enterprise Integration Services (DEIS) II, UNISYS, Fairfax Virginia. Follow-on Development Contract: Department of Transportation (DoT) Information Technology Omnibus Procurement (ITOP), DynCorp (previously General Telephone Electronics (GTE)), Chantilly, Virginia.

Type of contract: The initial development contract was competitively awarded as a time and material task order under the DEIS II contract on 26 Jun 96. The Task Order expired on 17 Oct 97. The DEIS II contract vehicle was selected as a means to reduce time associated with competitive development contracting and as a means to use a system integrator (UNISYS) with established subcontractual arrangements with the two companies which developed the two principal TC-AIMS II legacy systems.

The DoT ITOP contract was selected as the follow-on development contract for its multi-year task order award and incremental funding features. GTE was competitively awarded a Cost Plus Award Fee Task Order on 10 Oct 97. It is a five-year task order with one-year options. A recent task order modification restructured the Cost Plus Award Fee (CPAF) task order to incorporate cost plus incentive features. The restructure limits the government's maximum costs and creates incentives and penalties for cost below or above the target cost.

Hardware procurement is a Service responsibility and is to be accomplished via either Service-specific or DoD-wide IDIQ contract(s).

The current task order performance goals are provided in Part III of this report.

D. Architecture and Infrastructure Standards: The TC-AIMS II System Architecture incorporates the use of commercial-off-theshelf (COTS) hardware and software. The system is comprised of data servers, workstations, and laptop notebook computers configured in a Client/Server Architecture. It has an added scalability feature of separately operating in a standalone workstation or laptop notebook configuration. This is supported by a technical architecture which implements applicable standards from the OSD mandated Joint Technical Architecture (JTA) to includes the DII COE, data standards from Department of Defense Data Dictionary System (DDDS), DoD Y2K guidance and CLASS C2 Security requirements for a Sensitive but Unclassified (SBU) system. Additionally, the system architecture is extendible to a regional architecture to meet Service operational architecture requirements. Interoperability is being achieved through the use of current/existing communications infrastructure and data standardization/data exchange conversions with existing interface systems. OSD has issued a directive that all-new Command, Control, Communications, Computers, and Intelligence (C4I) systems and other systems that interface to C4I systems shall be in compliance with the JTA. The JTA in turn mandates use of the DII COE. Reference is specifically made to C4I Surveillance and Reconnaissance (C4ISR) Architecture Framework, Certified Information System Auditor (CISA)-0000-104-96, Version 1.0, 7 June 1996, and the C4ISR Integration Task Force (ITF) Integrated Architectures Panel. This document presents an innovative definition of levels of interoperability. The DII COE adopts these levels of interoperability and maps DII compliance to interoperability levels. The COE defines eight progressively deeper levels of integration for the Runtime Environment Category. These levels are directly tied to the degree of interoperability achieved. True integration begins at Level 4. TC-AIMS II is being developed to DII/COE level 6 compliance.

• Infrastructure Strategy:

> Only Army hardware requirements are included in the Army TOA. The other Services have retained the authority to equip their organizations and funds are in the individual Service TOAs.

- > Transport: Each Service is responsible for providing the infrastructure. TC-AIMS II is being developed to operate on existing Service infrastructure.
- > TC-AIMS II software will incorporate the use of COTS software products (operating systems and DBMS).

E. Program Highlights:

- The TC-AIMS II CINC TRANSCOM-chaired Configuration Management Board approved a plan to restructure the requirements delivery schedule into three releases.
- The Joint Program Management Office (JPMO) presented a program brief to German Ministry of Defense Staff Officers initiating discussion concerning TC-AIMS II interface with German commercial carriers.
- ASD (C3I) authorized the fielding of a ninth TC-AIMS II Beta site within the European Command. The Program Office was authorized to provide deploying units and USAREUR designated activities TC-AIMS II equipment, software, training, and customer support.
- The TC-AIMS II ORD was approved by the JROC.
- The Joint Staff directed the use of TC-AIMS II in their joint exercise "Foal Eagle 99" and the JPMO coordinated with J4, HQs United States Marine Corps, HQDA ODCSLOG, HQs III Marine Expeditionary Force, HQs Forces Command, and CONUS and OCONUS exercise participants regarding their support requirements.
- The Joint Staff/J4 recommended that the Training and Doctrine Command incorporate a TC-AIMS II operational capability presentation into their course curriculum.
- The Joint Chiefs of Staff J4 gained JROC approval to make TC-AIMS II Joint Force Requirements Generator II (JFRG II) Joint Operation Planning and Execution System (JOPES) the single deployment method of submitting transportation management data. This decision supports the Chairman's vision of a 72-hour TPFDD standard. A series of exercises called the "Millennium Challenge" will be used to validate this process.

- The JPMO began analyzing the impacts of the Chairman's Program Assessment language directing the Army to accelerate TC-AIMS II testing and fielding to support the 72-hour TPFDD standard.
- A recent task order modification restructured the Cost Plus Award Fee (CPAF) task order to incorporate cost plus incentive features. The restructure limits the government's maximum costs and creates incentives and penalties for cost below or above the target costs.
- The PO provided a program assessment to the DUSD (L). Based on this assessment the DUSD (L) determined that the PO position should be upgraded to a board selected O-6 Program Manager. He also approved a restructuring of the program's functional oversight and a revised program strategy.
- **F. Financial Basis for Selecting the Project:** Based on a sound best-value strategy, the principal factor for selecting TC-AIMS II was the program's anticipated functional capabilities that would enhance the transportation community's readiness and improve support to the warfighter. Cost effectiveness and other economic factors were also considered. A functional analysis was performed by personnel familiar with the transportation systems operations in both peace and wartime conditions. Automated information systems technical personnel evaluated the system for its potential for future technical improvement. The TC-AIMS II ORD was approved in March 1999 and the Acquisition Program Baseline (APB) is currently under development.

	Dollars in Millions										
	Sunk Cost FY 2000 FY 2001 FY 2002 FY 2003 FY 2004-2005 Total										
APB Total Resources by FY	N/A	No	Approved	APB.							
Total Resources by FY	60.3*	49.5*	26.0*	43.0*	19.4*	39.6*	237.8*				

^{*} Data shown in "Rebaseline Total Resources by FY" reflects current FY 2001 President's Budget programmed funding.

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s): TC-AIMS II uses three performance-based systems. They are: (a) Problem/Control Reports (PCR) tracking system for software problems; (b) Risk Management process identifying approximately 10 of the most critical risks associated with completion of the program; and (c) Earned Value Management system to measure cost, schedule and performance deviations.

PCR tracking system will track, by software version, problems associated with priority, closure and other pertinent data. This is a tool used to measure product quality, determine re-work levels and identify development process weaknesses.

Risk Management attempts to control a program's exposure to risks through identification of risk issues, risk assessment to define probability and impacts to prioritize program risks, the preparation and implementation of risk avoidance and risk contingency plans, and the continuous monitoring of those actions to ensure effectiveness. A Risk Management Board has been established to oversee the process. It is composed of management and/or engineering personnel representing all members of the TC-AIMS II development team and covering all program disciplines. A Risk Management database tool, Risk Radar, has been implemented to record and monitor program risks. The Risk Management Board is responsible for ensuring that all potential problem areas are assessed and controlled.

The Earned Value Management System (EVMS) tracks metrics for each Work Breakdown Structure (WBS) and for each high-level task. It is used to evaluate program cost and schedule variances and pinpoints potential problem areas.

Baseline Information: The Acquisition Program Baseline is under development. The Joint Configuration Management Board (CMB) chaired by the USTRANSCOM J3/4 approved the baseline functional requirements in January 1998 and approved the PO TC-AIMS II strategy for developing a core capability for IOC with the remaining baseline requirements as a Pre-Planned Product Improvement (P3I). Subsequent strategy to deliver the system in three increments plus the P3I was approved by the CMB in November 1998.

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	Cum total FY1998 and FY97	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total
B. Previous Balance:	·						
Cost Goals (\$M)	39.4	18.5	24.6	22.8	21.9	54.2	181.4
Schedule Goals (milestones)							
C. Baseline:	·						
Cost Goals (\$M)	39.4	16.6	24.6	26.0	25.5	59.2	191.3
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals (\$M)	39.4	20.9	49.5	26.0	43.0	59.0	237.8
Schedule Goals (months)							
E. Variance from Baseline Goals	:						
Cost Goals (\$M)	0	+4.3	+24.9	0	+17.5	-0.2	+46.5
Schedule Goals (months)							

Variance from FY01 Budget Estimate Submission: The FY99 increase is attributed to funding transfers from HQ USAREUR to support the extension of TC-AIMS II prototype sites into the Command and additional funding from OSD to support "Foal Eagle". The HQDA functional proponent presented hardware acquisition and deployment requirements that would support the 72-hour Time Phased Force Deployment Document (TPFDD) standard. The FY00 and FY02 funding increases support the acquisition of TC-AIMS II hardware for Army early deploying Power Projection Platforms and Power Support Platforms and the subsequent deployment of TC-AIMS II hardware not only to the Army, but also to the other Services. The FY00 funding is derived from the following sources: (1) a reprogramming action from Overseas Contingency Operations Transfer Fund and Program Reviews. The FY02 funding source

is a result of program reviews of the Major Budget Issue-Army Vision. The program has also absorbed several undistributed Headquarters Department of the Army (HQDA) and Congressional decrements.

TC-AIMS II is being developed to be Y2K compliant.

The system key performance parameters are in the ORD that was approved by the JROC in March 1999.

- The system must accept data, in time frames that support operational mission or task completion, from a multitude of external Defense and Service transportation systems.
- The system must have a capability to receive input from peripheral Automatic Identification Technology (AIT) devices capable of reading from the AIT media including but not limited to (1) linear bar codes, (2) 2D bar codes, (3) radio frequency identification tags, (4) optical memory cards, and (5) smart cards.
- The system must be able to import, store, process, update, and export operational data volume in support of Major Theater War deployment scenarios and traffic management operations. The threshold is that TC-AIMS II provides the ability for users to accomplish job-related tasks efficiently or as well as the best of breed of existing systems. The objective is for functional activities defined in this ORD to be automated in such a way as to reduce time required to perform those functions by at least 20 percent. This parameter assumes that competent and trained users, who understand how to prepare required documents, are using the system as part of their normal duties.
- The system must produce outputs in the form of electronic interfaces as well as produce standard labels, tags, forms, and reports used to accomplish transportation and deployment functions. The system must meet the following Processing Data Parameters:
 - Maintain unit level deployment database for unit level equipment, container, and pallet, and personnel lists associated with any Battalion or Squadron level unit
 - > Create, receive, maintain, and transmit parent-child deployment relationships to include use of deployment echelons
 - Support movement planning of cargo and personnel

- Pass cargo and personnel detail data to feeder systems and GTN to report, load plan, manifest, and source unit line numbers of a force requirement
- Assist in aircraft load planning and manifesting
- Aid in rail load planning
- > Support surface and ground transportation by receiving, generating, and transmitting bills of lading, tonnage distribution rosters, or transportation control movement documents
- Support Convoy movement requests
- Perform Ad-Hoc queries
- Prepare standard reports
- TC-AIMS II will be fielded on COTS computers that meet JTA compliance standards, and Service specific computer hardware acquisition requirements.
- TC-AIMS II must be reliable, available, and maintainable.
- TC-AIMS II must support mobility, deployability, and transportability.
- The TC-AIMS II should have no impact on the structure of the unit to which assigned.
- **F.** Corrective Actions: Services are to fund their acquisition requirements, which include respective legacy system replacement and new end users. This is necessary to ensure hardware is available at the time the software application is available for distribution. To ensure compliance, the preferred risk mitigation method would be an OSD issued PDM which provides funding to the Services' required level.

Schedule Goals:

Milestones

Baseline (Milestone) Schedule	Last President's Bu	idget (Month Year)	Current Submission (Month Year)
	Approved Achieved		Approved/Estimated
Program Initiation		Jan 97	
Working Level OIPT		Jun 97	
MS III Fielding Decision	Aug 99		Oct 00

Software complexity and size, contractor performance, and Joint Staff direction to support Joint Exercise "Foal Eagle 99" have extended the delivery of the first software release and a MS III Fielding Decision is now expected in October 2000.

Hardware acquisitions are to be funded by the Services.

Performance Goals: The system key performance parameters are defined in the ORD.

G. Year 2000 Special Information:

Y2K Phase: Not Applicable – New system under development

	Previous President's Budget	Current Submission
Date of Accomplishment		8/30/2000
Funding Estimate by Phase		Included in program cost
Estimate time for full Y2K Compliance	30 Apr 99	8/30/2000

Description Information:

Initiative Name and Acronym: Warfighters' Simulation Initiative Number: 5047
Project Activity/Mission Area: Science and Technology
Date Project was initiated: 1994
Date of Last Acquisition Decision Memorandum (ADM): 20 June 1994
Project is in <u>II</u> Milestone, Approval Dated: 20 June 1994, <u>Engineering and Manufacturing Dev</u> Phase as of current review.
Project Status: New Ongoing Yes No Yes No
Is this project a financial management system? Yes No
If yes, what percentage is financial %
Current Year 2000 Phase: N/A - New Development Post 2000
Year 2000 System Status as of January 20, 1999 (non-compliant, compliant, funding available): Compliant by design
Projected Date for Completion: 01/08/2006
Mission Critical Status: No
Standard System Status: Yes
Organizational Information/Program Manager: Audrey Beermann, DSN 970-3662/COL Charles R Ball, PM WARSIM, DSN 970-3650, STRICOM, ATTN: AMSTI-WARSIM, 12350 Research Parkway, Orlando, FL 32826-3276.

Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Warfighters' Simulation 2000 Project Activity/Mission Area: Science and Technology

	Dollars in Millions							
	Cum total FY1998 and prior	FY1999	FY2000	FY2001	FY2002	Cum total FY2003 through FY2005	Total	
Planning								
RDTE	90.8	43.0	54.4	48.0	34.1	68.7	339.0	
Total Dev Mod	90.8	43.0	54.4	48.0	34.1	68.7	339.0	
Full Acquisition								
OPA	0.0	0.0	0.0	0.0	35.1	47.3	82.4	
Total Dev Mod	0.0	0.0	0.0	0.0	35.1	47.3	82.4	
Current Services/Maintenance								
OMA	0.0	0.0	0.0	3.1	8.6	53.2	64.9	
Total Current Service								
Total Resources by FY	90.8	43.0	54.4	51.1	77.8	169.2	486.3	

Part II. Justification: Provide Requested Justification Materials

A. Description/Performance Characteristics: WARSIM is a computer-based simulation, with associated hardware, to support the training of unit commanders and their battle staffs, from battalion through theater-level, as well as for the use of command post training events in educational institutions. Designed and built using modern computer technology, modern software engineering techniques and validated algorithms and databases, it will allow Army units world-wide to train in their command posts using their organizational equipment. Through the use of modern technology and advanced software constructs WARSIM will minimize the total Army's overhead associated with supporting command post training.

Thus it will provide a comprehensive training environment capable of linking its simulation-based constructive entities with virtual (simulator-based) and live (instrumented vehicle) entities. WARSIM will provide a complete synthetic operational environment with scenarios drawn from the entire operational continuum to support Army, joint, and coalition force training, distributed across the globe.

The WARSIM Acquisition Plan (AP) was revised to highlight changes in the program's acquisition strategy. Since the original AP was approved, the Army's Deputy Chief of Staff Operations (DCSOPS) signed a Joint MOA committing to provide the land warfare functionality for a new Joint Simulation System (JSIMS). The WARSIM program is the Army's mechanism to meet this Joint obligation as well as to satisfy Army Title X training requirements. The WARSIM ORD has also been revised since the initial AP was approved. Essentially, this new ORD requires the WARSIM program to provide a Combat Service Support (CSS) capability within the simulation versus linking to a legacy CSS Training Simulation System (CSSTSS). Finally, the original technical approach to provide an intelligence driver for WARSIM was to operationally link to an existing system called the Tactical Simulation (TACSIM). Subsequently, a detailed requirements analysis and engineering assessment identified intelligence requirements which TACSIM did not meet and further determined the necessity to develop a new intelligence driver. At that juncture the WARSIM Intelligence Module (WIM) was initiated as a supporting effort. All of these changes have had significant impacts on the WARSIM acquisition program baseline. The JSIMS program has perhaps the most far reaching implications. This initiative calls for

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participation of all Services and requires extensive coordination of performance requirements, schedules, and costs. In order to account for these impacts, the WARSIM and WIM contracts had to be rebaselined in the areas of cost, schedule, and performance.

The requirement for WARSIM is based upon an Army wide replacement of legacy command and control simulation systems. It was selected as the Army's primary command and control training tool based upon training effectiveness and cost efficiencies over and above the current legacy command and control simulation systems.

B. Program Management/Management Oversight: The Functional Proponent is the National Simulation Center, US Army TRADOC. The Army Acquisition Executive (AAE) is the Milestone Decision Authority; The Program Manager is the PM Warfighter Simulation (WARSIM); U.S. Army Simulation, Training and Instrumentation Command is the executing agent; and the Contracting Office is the Naval Air Warfare Center Training Systems Division, Orlando, FL.

WARSIM is managed by means of a Partnership arrangement with the contractor and the National Simulation Center, the user proponent of the system. Below this management level, the entire project is decomposed along functional lines with IPT for each concurrent engineering effort. IPTs are staffed with appropriate representation from each member of the partnership and augmented as necessary with members from other key areas of expertise from other agencies and contractors.

WARSIM is managed under the auspices of the DOD 5000 series of directives and instructions for weapon system acquisition with an acquisition designation of ACAT II. In concert with this designation, Army outlines the processes and procedures employed for management of the WARSIM acquisition. The WARSIM contracts contain provisions for monthly earned value reporting.

C. Contract Information: The prime contractor for WARSIM is Lockheed Martin Information Systems (LMIS) Group, Orlando, FL. The prime contractor for the WIM segment is MRJ, Inc, Fairfax, VA. Best value principles were applied in the contractor selection process. CPAF was chosen in order to incentivize contractor performance and mitigate the risk associated with this highly complex software development. LMIS and MRJ, Inc. were selected as a result of a free and open competitive selection. The contracts are performance based with provisions for monthly earned value reporting.

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- **D.** Architecture and Infrastructure Standards: The system will be designed to meet emerging High Level Architecture (HLA) standards and protocols to facilitate interoperability with other HLA compliant simulations, simulators, and live training events. WARSIM will be Defense Information Infrastructure Common Operating Environment (DII COE) compliant at the highest level that ensures HLA compliance. WARSIM is interdependent on the core architecture to be provided by the Joint Simulation System (JSIMS). All WARSIM hardware requirements, which are primarily COTS, are included in the funding outlined herein. However, it must be noted that the JSIMS hardware requirements for Army JSIMS unique sites are not included in the WARSIM (Army) budget.
- **E. Program Highlights:** FY99 Accomplishments: All of the planned development activities were accomplished on schedule, including the completion of spiral Build 1 in June 1999. WARSIM participated in the successful JSIMS Systems Evaluation Requirements Review technical demo in July. WARSIM developed a Test Harness Enhancement to mitigate the risks associated with potential delays in JSIMS delivery of core infrastructure so that ground combat and intelligence Army functionality development can continue on schedule. In October 1999, JSIMS announced an 11 month slip in their IOC schedule which necessitated adjustment to the WARSIM schedule, which much retain synchronization with JSIMS.
- **F. Financial Basis for Selecting the Project:** The WARSIM program was designated an ACAT II program in December 1998 from ACAT III. The Acquisition Program Baseline, approved in April 1998, does not include an annual distribution of cost objectives. The Development Threshold through FOC is \$442.7M and the Development Objective is \$402.4M. The Life Cycle Development Threshold is \$527M and Objective Cost is \$479M. The Life Cycle Procurement Threshold is \$231M and Objective Cost is \$210M.

No formal cost benefit analysis or ROI has been performed to date. An assessment of the age and capabilities of the legacy systems to be replaced was done prior to approval of the Operational Requirement Document.

	Dollars in Millions									
	Sunk Costs	Sunk Costs FY00 FY01 FY02 FY03 FY04-N Total								
APB Total Resources by FY										
Total Resources by FY										

Part III. Cost, Schedule, and Performance Goals:

A. Description of Performance based system(s):

Baseline Information: WARSIM was initiated in FY94, RDTE Full Operation Capability (FOC) objective is \$309.6M WARSIM Intelligence Model (WIM) initiated in FY95, RDTE FOC objective is \$92.8M. The WARSIM and WIM programs are now managed as a single ACAT II program.

WARSIM/WIM OPA 3 objective is \$210.0M.

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	Cum total FY1998 and Prior	FY1999	FY2000	FY2001	FY02	Cum total FY2003 through FY2005	Total
B. Previous Balance:							
Cost Goals (\$M)							
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals (\$M)	93.6	38.7	52.1	53.3	54.9	90.1	385.1
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals (\$M)	90.8	39.2	48.3	48.8	81.0	168.2	476.3
Schedule Goals (months)							
E. Variance from Baseline Goals	:			·			
Cost Goals (\$M)	-2.8	.5	-3.8	-4.5	26.1	78.1	91.2
Schedule Goals (months)							

The WARSIM program was classified as an ACAT III program until December 1998. The Acquisition Program Baseline, approved in April 1998, does not include an annual distribution of cost objectives.

The program was rebaselined in FY98 to incorporate the cost and schedule changes resulting from WARSIM's change from an independent Army system to participation as the Land Component of the JSIMS Enterprise. The Milestone III date was moved from 4QFY00 to 4QFY01 due to synchronization with the JSIMS IOC schedule. The Milestone III date was again adjusted in Oct 1999 to 2QFY02 to retain synchronization with the JSIMS schedule.

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The MDA is periodically briefed and the WARSIM program also has management oversight by an Executive Steering Group, which meets quarterly.

F. Corrective Actions:

Schedule Goals:

Milestones

Baseline (Milestone) Schedule	Last President's B	Sudget (Month Year)	Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Contract Award		Jun96	Jun 96
Complete Software Build I		Jun99	Jun 99
Complete Software Build II			Sep 00
Complete Software Build III			Oct 01
Hardware MS II			Mar 02
IOC Software Version 1.0			Dec 01

The Acquisition Strategy is being planned to provide for block upgrades following IOC. The program is scheduled for IOC in Mar 2002. The Milestone III date was moved from 2QFY01 to 2QFY02 due to synchronization with the JSIMS IOC schedule.

Performance Goals:

Performance Goal Summary (Primary Performance Objective Criteria from the Approved APB):

Support Staff & Role Player Automation
Synthetic Natural Environment
Spectrum of Opns & Threats

66% reduction in support personnel overhead
Virtual environment and interactive targets
Operations Other than War

C4I Interface Full integration with Army C4I equipment

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Open Architecture, Object oriented Fully open and object-oriented

Combat Service Support Full CSS functionality

JSIMS Land Component Fully integrated JSIMS component

Intelligence Driver Portray a full range of threat systems and sensors HLA Compliant Interfaces with Army HLA compliant virtual and live

simulators

After Action Review Improvement of IOC Capability based on early user

Feedback

G. Year 2000 Special Information:

Y2K Phase: N/A - New Development Post 2000

	Previous President's Budget	Current Submission
Date of Accomplishment		12/15/2001
Funding Estimate by Phase		
Estimate time that for full Y2K Compliance		12/15/2001

Component Title	Initiative Number	Initiative Name	Initiative Description
Army	0007	ACQUISITION INFORMATION MANAGEMENT	The Acquisition Information Management (AIM) Program is an incremental system effort that seeks to build upon the existing hardware, software, and communications infrastructure to provide an integrated client server environment that electronically links all levels of the Army Acquisition Community.
Army	0023	ADP SERVICES FROM DISA	The ADP Services from DISA for Army MACOM and Theater provides support and services at consolidated sites IAW Army and DoD downsizing direction. It provides BASOPS and STAMIS support in logistics, financial, and medical functional areas.
Army	2221	ADP SUPPORT PERSONNEL (NON-DATA PROCESSING INSTALLATION/NON-DIRECTOR OF IM)	Army ADP support personnel funds Army management headquarters activities associated with Information Technology related activities civilian pay, overhead, training, TDY.

Component Title	Initiative Number	Initiative Name	Initiative Description
Army	2166	ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM	The Advanced Field Artillery Tactical Data System (AFATDS) is a single integrated battlefield management and decision support system. It will function in the digital battlefield at Firing Platoon through Echelons Above Corps as one of the five automated systems of the Army Battlefield Control Systems (ABCS). AFATDS will be the Fire Support node of the ABCS providing all 27 Fire Support functions, including Fire Support Execution, Fire Support functions, including Fire Support Execution, Fire Support Planning, Movement Control, Field Artillery Mission Planning and Field Artillery Fire Direction Operations. As the replacement for the obsolete tacfire system, AFATDS incorporates advances in communication and software technology and provides fully automated fire support planning, coordination, and execution of close support, counterfire, deep battle, and suppression of enemy fires. AFATDS will provide automated support for the fire support control segment of ACCS. Compatibility and interoperability will be planned for all existing and planned U.S. and allied field artillery systems and sensors.

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		
Army	2104	AIR LOAD MODULE	The Air Load Module system assists users with
			aircraft planning. It uses an artificial intelligence
			methodology to load plan for aircraft in near real
			time. The system takes data input of equipment and
			personnel, establishes gross load planning
			information, and quickly produces fully executable
			load plans for either a single mission, brigade sized
			deployment or multiple division sized airlift.

Component Title	Initiative Number	Initiative Name	Initiative Description
Army	0108	ALL SOURCE ANALYSIS SYSTEM	The All Source Analysis System (ASAS) provides
			US Army commanders at echelons above corps
			through battalion a standard all source intelligence
			processing/reporting system and provides the means
			for gaining a timely and comprehensive
			understanding of Opposing Force (OPFOR)
			deployments, capabilities, and potential courses of
			action. The system interfaces with selected national,
			joint, and theater Intelligence assets,
			adjacent/higher/lower military intelligence
			processors and sensors, Army Battle Command
			System (ABCS), and organic deployed
			Intelligence/Electronic Warfare (IEW) teams and
			assets. The ASAS also is a user of terrain and
			weather data. The ASAS system uses standard joint
			and Army protocols and message formats to
			interface with forward deployed sensor/teams,
			intelligence processors and joint/national/Army C3I
			systems.
Army	0141	ARMY CIVILIAN PERSONNEL SYSTEM	This program is comprised of two separate but
			synergistic systems: Field ACPERS and
			Headquarters (HQ) ACPERS. Field ACPERS is a
			Major Command (MACOM)/Installation level,
			Standard Army Management Information System

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Component Title	Initiative Number	Initiative Name	Initiative Description
			(STAMIS) which supports Civilian Personnel processes by providing a central database for all Army civilians. Field ACPERS supports all personnel actions, i.e., recruitment, transfers, separations, and training. HQ ACPERS is a management reporting system used by MACOMs and Army Staff (ARSTAF). ACPERS is being replaced by the Defense Civilian Personnel Data System (DCPDS) effective FY00.
Army	0688	ARMY DISTANCE LEARNING PROGRAM	The Total Army Distance Learning Program (TADLP) supports the standardized training provided through the Total Army School System (TASS). The application of a broad range of training options through technology increases instructor productivity and effectiveness, improves student learning, and standardizes Army training.

Component Title	Initiative Number	Initiative Name	Initiative Description
Army	2103	ARMY ENTERPRISE ARCHITECTURE	Army Enterprise Architecture (AEA) provides the
			information technology (it) architecture for army
			XXI and lays the foundation for "army after next."
			Program is necessary to implement CSA and tap
			guidance to digitize the army by 2010. Provides the
			disciplined methodology and process that creates the
			conditions (e.g., horizontal flow of information,
			improved information accuracy and speeds, a
			common understanding of information, and the
			ability to field capability) to achieve information
			dominance on the battlefield. It links military
			strategy and doctrine to the employment of
			information technology used in executing military
			operations and is the fundamental enabler of
_	01.45		achieving army vision 2010 operational patterns.
Army	0147	ARMY FOOD MANAGEMENT INFORMATION	Modernizes the current garrison Army Food
		SYSTEM	Management System with commercial software on a
			client/server windows platform; also provides a
			Class I decision support tool for asset
			visibility/requisitioning in a tactical environment. It
			includes improved business processes in food
			service operations, a point of sale capability, an
			automated headcount capability to support smart
			card technology, and an added decision support

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Component Title	Initiative Number	Initiative Name	Initiative Description
			module to allow high level managers at installation, MACOM and HQDA to make better management decisions.
Army	0154	ARMY MODEL IMPROVEMENT PROGRAM	The Army Model Improvement Program (AMIP) is designed to improve the Army's analytic capability by providing a consistent basis to support decision making affecting force structure, doctrine, and procurement. AMIP directly supports Principle 10, Exploit Modeling and Simulations, of the Army Enterprise Strategy. By using state-of-the-art hardware and new software technology, AMIP will develop an integrated family of computerized combined arms combat models with supporting data bases. These models will support studies, research, and training. Component models will be interfaced and tested for validity and consistency of representations and results.
Army	2191	ARMY OPERATIONS CENTER	The Army Operations Center program maintains state-of-the-art information management capability for the Army Staff activities and senior leadership of the Army to obtain a completely integrated multilevel secure system. A fully integrated desktop with user friendly tools and access to most Army and DoD databases is a key AOC goal. The system

Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			supports every military operation involving the
			Army and every Disaster relief operation engaged in
			by DoD. It allows the Senior Army leadership and
			Army/DoD officers to quickly access, manipulate,
			display, brief and send command and control
			directives and mission essential information.
Army	0162	ARMY PERSONNEL CENTER INFORMATION	The Army Personnel Center Information
		MANAGEMENT PLAN	Management Plan (ARPERCEN) describes how the
			personnel management community will utilize IT to
			support all phases of personnel management:
			accession, leadership training and development,
			mobilization, deployment/redeployment, and
			disposition within the Army Enterprise Strategy of
			power projection and split based operations. The
			"system of systems" plan to support the Army
			Personnel Systems' Architecture and ensure the
			integration necessary to operate effectively and
			efficiently across the full spectrum of military
			operations.

Component	Initiative Number	Initiative Name	Initiative Description
Component Title Army	Initiative Number 6040	ARMY RECRUITING INFORMATION SUPPORT SYSTEM	•
			will be fielded to all levels of the Army recruiting structure. ARISS will aid the Army to meet new

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			accession goals in an era of dwindling resources and
			a shrinking pool of potential applicants for military
			service.
Army	0164	ARTIFICIAL INTELLIGENCE	The Army's Artificial Intelligence program funds
			research and development in the application of
			systems that employ human knowledge captured in
			computers to solve a variety of military problems
			that ordinarily require human expertise.
Army	2223	CENTRAL DESIGN ACTIVITY OPERATIONS	The Army's Central Design Activity funds all
		(NON-SYSTEM SPECIFIC)	support costs involved in the development and
			maintenance of a software system: system planning
			and design; system development; deployment,
			testing, and installation system maintenance; and
			technical and management support.
Army	0364	CIDC IMS	The Criminal Investigation Command's
			management information system funds its world-
			wide information support system that links its
			regional offices to the CIDC headquarters.
Army	5053	CLOSE COMBAT TACTICAL TRAINER	The Close Combat Tactical Trainer (CCTT) is a
			networked system of manned simulators (Tank,
			Bradley, FIST-V, HMMWV, M113A3) supported
			by emulators and semi-automated forces that
			provide combat support, combat service support and
			both friendly and opposing forces. It trains crew

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Component Title	Initiative Number	Initiative Name	Initiative Description
			through battalion level combat elements of close combat units of both the Reserve Component and Active Component in their collective tasks. CCTT will incorporate the Force XXI digitized Battle Command systems. This digital expansion of CCTT is called CCTT XXI and will integrate the Army's advanced close combat heavy battalion task force and below into the CCTT virtual training system, and supports Digitized Battle Command and Staff training for brigade and below. CCTT XXI also provides the unique capability to support the development, experimentation and testing of Force XXI Tactics, Techniques and Procedures (TTPs) and the validation of emerging Force XXI concepts and Battle Command system capabilities in a combined arms battlefield environment prior to the investment in costly live exercises.
Army	2210	COMBAT SERVICE SUPPORT CONTROL SYSTEM	The Combat Service Support Control System (CSSCS) is an automated command and control (C2) system that supports the CSS component of the Army Battle Command System (ABCS), and provides a critical logistical C2 capability for the Army's Force XXI. It will automate the current manual processes of force level planning and

Component	Initiative	Initiative Name	Initiative Description
Title	Number		-
			decision-making for commanders and their staffs.
			CSSCS interoperates both vertically, within the CSS
			Battlefield Functional Area (BFA), as well as
			horizontally with other BFA's; namely Fire Support,
			Maneuver Control,
			Intelligence/Electronic/Electronic Warfare, and Air
			Defense. CSSCS implements functionally through use of Common Hardware and Software (CHS),
			Common Operating Environment (COE), reuse
			software, and unique application software. CSSCS
			supports the planning and decision making processes
			of the theater and tactical force level commander.
Army	2211	COMBAT TERRAIN INFORMATION SYSTEM	The Combat Terrain Information System support
			force development and weapon system orientation.
Army	0553	DCSIM/DOIM STAFF OPERATIONS COSTS	DCSIM and DOIM staff operations funds provide
			civilian pay, overhead, training, TDY, and contract
			support to MACOM DCSIMS and installation level
			BASOPS DOIM functions.
Army	2189	DEPARTMENT OF ARMY MOVEMENT	The Department of Army Movement Management
		MANAGEMENT SYSTEM	System enhances the planning, programming,
			coordination, and control of movements and
			transportation resources. It supports the movements
			management, transportation operations, and
			common user transport asset control functions

Component Title	Initiative Number	Initiative Name	Initiative Description
			within any theater of operations. It is designed to provide a reliable automated information processing capability in support of transportation services and movement control operations. Transfers to TC-AIMS in FY99.
Army	6306	DISTRIBUTIVE TRAINING TECHNOLOGY	Distributed Taining Technology (DTT) provides classrooms not currently addressed in The Army Distance Learning Plan (TADLP). The primary mission of DTT is to provide access to distributed military readiness training to members of the National Guard who, for geographic or logistical reasons, do not have ready access to other Army distance learning facilities.
Army	0730	ELECTRONIC COMMERCE	Electronic Commerce (EC) synthesizes the benefits of business process re-engineering and the migration from aged paper-based business processes to fully electronic processes. Using streamlined and technically innovative business practices, EC unites all functional areas into a cohesive electronic business network. EC implements Executive direction for the Federal Government and Defense Services/Agencies to implement Electronic Commerce globally. EC complements other Defense-wide efforts such as the Defense Reform,

Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			Paperless Acquisition, Joint Computer-aided
			Acquisition and Logistics Support, and PKI for
			Defense Travel System. By conducting business
			electronically, the Army will be able to expedite
			normal business transactions, particularly during
			surges associated with military mobilization. EC
			helps create the digitized power projection platform
			necessary for the sustainment of the Army's
			digitized battlefield through electronic commerce
			with its Industrial Partners. EC supports pilot
			projects as "proof-of-concept" of EC technologies
			applied to re-engineered business processes.
Army	3068	ENVIRONMENTAL COMPLIANCE	Environmental Compliance funds support all C4/IT
			costs associated with developing and maintaining IT
			to collect, report, and disseminate information
			related to the environmental compliance program in
			the Army.
Army	0851	FORCE MANAGEMENT SYSTEM (REPLACES	The Financial Reporting System - Accounting
		TADDS-R)	(FMS) funds all Army efforts associated with the set
			of applications and a single integrated database used
			to collect, generate, and present data supporting the
			Army force management process.
Army	2212	FORWARD AREA AIR DEFENSE COMMAND	The Forward Area Air Defense Command and
		AND CONTROL SYSTEM	Control System (FAADC2) is an automated system

Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			deployed with FAAD weapons to provide accurate
			and timely command, control, and targeting
			information for weapon systems. The system
			utilizes non-developmental item sensors (Light and
			Special Division Interim Sensor and/or Sentinel
			(Ground Based Sensor)), computers, displays, and
			interface hardware integrated with data
			communication equipment. It provides airspace
			situational awareness for friendly Aviation C2, ADA
			early warning and weapons system cueing, reduced
			fratricide, Joint and Combined force situational
			awareness.
Army	5070	GLOBAL COMBAT SUPPORT SYSTEM -	Global Combat Support System - Army (GCSS-A)
		<u>ARMY</u>	will be the business/tactical automation enabler for
			the Army combat service support (CSS) mission
			area and will constitute the Army portion of GCSS.
			GCSS-A supports the CSS functions of manning,
			arming, fixing, fueling, moving and sustaining
			soldiers and their systems. Development and
			fielding of GCSS-A will follow an incremental
			acquisition strategy combining development with
			incremental (GCSS-ARMY) fielding of capability
			packages. GCSS-A will integrate CSS functionality
			to support the Revolution in Military Logistics in

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Component Title	Initiative Number	Initiative Name	Initiative Description
	Trumou		support of Force XXI, Joint Vision 2010 and Army After Next. Tier I of GCSS-A will consist of six major modules: supply/property, maintenance, ammunition, supply support, Integrated MMC, and management. Tier II will modernize wholesale logistics systems and integrate these systems with retail CSS. Tier III will implement all required interfaces with automated information systems (AIS) of the Joint community, national sustaining base, and applicable allied systems.
Army	6307	GLOBAL COMBAT AND CONTROL SYTEM - ARMY	TBD
Army	0934	HOUSING OPERATIONS MANAGEMENT SYSTEM	The Housing Operations Management System (HOMES) is a standard management system designed to provide efficient processing of soldiers' housing needs. HOMES consist of four subsystems. (1) Assignments and Terminations supports the management of Government controlled housing. (2) Community Homefinding Relocation Referral Services aid in locating off-post housing. (3) Billeting supports transient billets, Fisher houses, guesthouses, BOQs & SBEQs; and Furnishings Management controls and manages the furnishings inventory; and (4) System Administration provides

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		-
			a menu driven capability for administering the
			hardware and software for the above systems.
			HOMES increases availability of housing services,
			housing utilization, housing inventory control and
			the control of Basic Allowance for Quarters (BAQ).
			HOMES has been identified as a critical element of
			the Army Family Housing Action Plan to improve
			the level of housing services to soldiers and families
Army	2193	INFORMATION MANAGEMENT CENTER	The Information Management Center Decision
		DECISION SUPPORT SYSTEM (ARMY)	Support System (IMC DSS) funds Army efforts to
			leverage the Army's intellectual capital to better
			organize, train, and equip the Army's strategic land
			force for the 21st century.
Army	0967	INFORMATION SYSTEM SECURITY	The Information System Security Program provides
		<u>PROGRAM</u>	communication security, cryptosecurity,
			transmission security, emission security, and
			computer equipment and products as a means for
			protecting telecommunications and information
			systems which process classified, mission sensitive,
			national security, and related sensitive information.
			Prevents exploitation through intercept,
			unauthorized electronic access, or related technical
			intelligence threats. Ensures authenticity, integrity,
			protection and availability of information

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Component Title	Initiative Number	Initiative Name	Initiative Description
			transmitted by information systems.
Army	5046	INSTALLATION SUPPORT MODULES (DOWN	SBIS was the central acquisition program that
		SCOPE OF SBIS 1853)	modernized, validated and prioritized functional
			applications software, and associated infrastructure,
			that supports sustaining base needs for the
			Headquarters, Department of the Army (HQDA),
			Major Army Commands (MACOMs), and
			installations. The SBIS program consists of up to 13
			custom developed applications to be fielded to
			various Army installations. The resultant
			Installation Support Modules (ISM) include
			Commercial Off the Shelf (COTS) and/or
			Government Off the Shelf (GOTS) solutions to
			support Army sustaining base requirements. SBIS
			applications are designed to operate in an Open
			Systems Environment (OSE) compliant automated
			infrastructure maximizing the number of support
			suppliers while minimizing the total life cycle cost.
			SBIS provides required automation support to
			improve and standardize critical sustaining base
			business processes. Fielded software has become an
			integral part of readiness, mobilization and
			installation management. Developed applications
			enhance key elements of those support missions and

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Component Title	Initiative Number	Initiative Name	Initiative Description
Title	Number		enable consistent, timely data collection and dissemination, allowing better management of key
			areas of the Army Safety Program, security
			clearance status monitoring, the schoolhouse system, and range facility management.
Army	2180	INSTALLATION INFORMATION INFRASTRUC	
		TURE MODERNIZATION PROGRAM	Modernization Program (I3MP)is the initiative to upgrade the information infrastructure at Army
			installations to support power projection and split
			based operations. I3MP represents the installation
			level distribution portion of the Warfighter
			Information Network (WIN). I3MP is the main
			initiative to digitize the installation and it provides
			the connectivity to the installation and other Active,
			CONUS support activities as well as the deployed
			combat forces. I3MP will synchronize the
			infrastructure being installed by other programs, the
			MACOM and/or the installation to reduce the cost
			and disruption at each installation The objective
			of Power Projection Cmd, Control, Commun and
			Computer Infrastructure (PPC4I) is to: (1) support
			communication requirements of deployed forces and
			their access to home installation sustaining base
			systems; and (2) to emplace Information Systems in

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Component Title	Initiative Number	Initiative Name	Initiative Description
			a coordinated, synchronized, integrated manner, thereby optimizing funding/personnel resources and maximizing the operational benefits. PPC4I identifies the cooperative role and responsibility for installations in the active, direct execution of the National Military Strategy to project forces beyond the borders of the United States to anywhere in the world with little advance notice.
Army	0982	INTEGRATED COMPUTERIZED DEPLOYMENT SYSTEM	The Integrated Computerized Deployment System (ICODES) is being developed as a single standard common user stow planning system to meet DoD worldwide requirements. ICODES is a Military Traffic Management Command (MTMC) initiative, applying the principles of Artificial Intelligence to the function of planning loads and stowage of cargo and equipment aboard ocean vessels. ICODES will dramatically reduce the time (from 12 hours to under 30 minutes) and improve the accuracy of the ship stow planning process, enabling the user to concentrate on complex problems associated with port management and vessel loading. ICODES will support rapid deployment missions, planning cargo deployments from multiple seaports of embarkation and debarkation, as well as multiple ships.

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Component Title	Initiative Number	Initiative Name	Initiative Description
Army	0986	INTEGRATED FACILITIES SYSTEM	The Integrated Facilities System (IFS) is being developed as the single standard system to support the Army Corps of Engineers at the HQDA level as well as the installation level Directors' of Engineering and Housing to improve and integrate management control of Army facilities.
Army	5074	INTEGRATED METEOROLOGICAL SYSTEM	The Integrated Meteorological System (IMS) is the automation of weather effects and aids in support of tactical commanders at corps and division. IMS support aviation, artillery, intelligence, and maneuver commanders with weather products and decision aids in a tactical environment.
Army	1039	JOINT COMPUTER AIDED ACQUISITION AND LOGISTICS SUPPORT	The Joint Computer Aided Acquisition and Logistics Support (JCALS) executes the DOD CALS strategy to reengineer acquisition, logistics and system engineering business processes supporting major weapon systems. It provides an infrastructure capable of integrating digitized technical data for the Joint Services and Defense Agencies. Infrastructure products include Global Data Management System, Workflow Manager, Reference Library, and PC client. Funding supports an infrastructure capable of generating & exchanging digitized weapon systems, acquisition and logistics technical information

Component Title	Initiative Number	Initiative Name	Initiative Description
	rumser		within and among the Services, Defense Agencies and industry. The first application is to Manage, Acquire, Improve, Publish, Stock and Distribute Joint Technical Manuals electronically.
Army	1063	KEYSTONE	Keystone is a online interactive system designed to support HQDA, ODCSPER in the requirement to man the force across the spectrum of operations. It supports Active, Reserve, and National Guard, reenlistment, reclassification, assignment and distribution process for enlisted soldiers.
Army	5077	LEASED TELECOMMUNICATIONS (NON-SYSTEM SPECIFIC)	The Leased Telecommunications (non-system specific) initiative identifies telecommunications resources for leased voice and data services received by a commercial contract.
Army	2215	LIFECYCLE REPLACEMENT	The Lifecycle Replacement is the economic replacement of outdated or broken automated data processing equipment (ADPE) or off-the-shelf software. Outdated ADPE is any ADPE that is over eight years old (based on the initial commercial installation date of the equipment) and is no longer in current production.
Army	2201	LOGISTICS MANAGEMENT SUPPORT SYSTEMS	The Logistics Management Support Systems (LMSS) provides automated forecasting, distribution, scheduling, and production control of

Component		Initiative Name	Initiative Description
Title	Number		
			maintenance workloads commensurate with
			readiness requirements. It will be operational at
			maintenance companies, division/corps, MACOMs,
			and installations.
Army	2199	LOGISTICS SUPPLY SYSTEMS	The Logistics Supply Systems (LSS) is a multi-level
			supply system designed to operate in peacetime and
			wartime at every level of supply from the DSU
			through TAMMS for the field Army and at the
			installation supply division in the CONUS
			environment.
Army	2213	MANEUVER CONTROL SYSTEM	The Maneuver Control System (MCS) is an
			automated tactical Command, Control and
			Communications (C3) system which provides a
			network of computer terminals to process combat
			information for battle staffs. It provides automated
			assistance in the collection, storage, review and
			display of information to support the commander's
			decision process. Both text and map graphics are
			provided to the user. It enables operation staffs,
			G3/S3, to process and distribute estimates, plans,
			orders and reports. The system is designed to
			operate with existing and planned communications
			networks. This is a evolutionary development
			including planned system improvements to insure

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Component Title	Initiative Number	Initiative Name	Initiative Description
			increasing Command and Control (C2) capabilities and infusion of current technology while, in the interim, providing an essential core capability.
Army	1175	MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE	The Medical Communications for Combat Casualty Care (MC4) will provide the required automation and communication infrastructure to support fielding of the DoD standard Theater Medical Information Program (TMIP) to Army activities. Planned capabilities include a Personal Information Carrier (PIC) which will replace the traditional dog tag and serve as a data input device to improve combat casualty care.
Army	1191	MEPCOM MANAGEMENT INFORMATION REPORTING SYSTEM	The purpose of Mepcom Management Information Reporting System (MIRS) is to provide the automation and communications capability for USMEPCOM to meet its peacetime, mobilization and wartime military manpower accession mission for the Armed Services. The MIRS will interface with recruiting capabilities for all services, incorporating the concept of electronic data sharing using standard DoD data elements between USMEPCOM and all the Armed Services recruiting commands, greatly reducing redundant data entry. It replaces the military entrance processing reporting

Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			system (MEPRS), a batch process legacy system
			operating eight years beyond its life cycle.
Army	2181	MILITARY ENTRANCE PROC CMD JOINT	A memorandum of understanding between DoD and
		COMPUTER CENTER	Selective Service System (SSS) formalized the
			establishment of the Joint Computer Center (JCC)
			where automatic data processing resources can be
			shared by USMEPCOM and SSS. The JCC mission
			includes the management and enhancement of
			shared resources, in full support of the USMEPCOM
			and SSS peacetime and mobilization mission
			requirements.
Army	1217	MILITARY POLICE MANAGEMENT	The Military Police Management Information
-		INFORMATION SYSTEM	System contains five sub-systems which provide law
			enforcement reporting, correctional tracking, vehicle
			and weapon registration and management planning
			of installation level physical security activities, and
			enemy POW accountability.
Army	1236	MODERN AIDS TO PLANNING PROGRAM	The Modern Aids to Planning Program is a JCS
			initiated system designed to assist EUCOM in War
			planning management. It enables planners to apply
			modern analytical tools as an aid to the development
			and evaluation of war plans.
Army	2218	OFFICE AUTOMATION (NON-SPECIFIC)	Office automation is automated administrative
			support systems that use automation equipment to

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			support procedures and processes that are typical of
			an office environment. The technologies include,
			but are not limited to: micrographics, optical disks,
			word processors, personal computers,
			minicomputers, microcomputers, laser printers, line
			or dot matrix printers, and specialized data
			processing equipment, such as graphic displays, all
			used for office purposes. The office automation
			requirements for the OIG includes the wide
			area/local area network (file servers, computer
			workstations and printers) that primarily support
			administrative processing such as word processing,
			spreadsheets and database applications and access to
			standard systems such as the Defense Civilian
			Payroll System time and attendance processing, and
			standalone hardware and software requirements such
			as notebook computers used by audit and criminal
			investigators for field work. The OIG minicomputer
			processing supports the migration of agency
			administrative processing (report and case tracking)
			from mainframe to in-house processing. Limited
			mainframe processing requirements are covered
			through support and payments to the Defense
			Information Service Agency.

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Component Title	Initiative Number	Initiative Name	Initiative Description
Army	2214	OFFICE AUTOMATION HARDWARE & SOFTWARE UPGRADES	The Office Automation Hardware and Software Upgrades are used to report the acquisition of technologically newer office automation hardware or software (other than life cycle replacement) which results in an upgrade or provides improved capability. This includes expansion of existing
Army	1464	OPERATING & SUPPORT MANAGEMENT INFORMATION SYSTEM	capabilities to new users/sites. The Operating & Support Management Information System (OSMIS) is developed by the Cost and Economic Analysis Center to provide budgeters and planners with detail cost figures regarding the
Army	2185	OPTEC FIELD TESTS	operating and support costs associated with major Army systems down to the unit level of detail. The OPTEC Field Test supports the Operational Evaluation Command under the VCSA responsible for all operational testing of Army material and automation systems. It funds development of the software test and evaluation and metrics to gain
Army	2224	OTHER COMMAND & CONTROL SYSTEMS	control of software development costs. The Other Command and Control Systems provides resources in support of the alternate national military command center, the national military command center, the national military command system, and the minimum essential emergency communications

Component Title	Initiative Number	Initiative Name	Initiative Description
			network.
Army	1499	PENTAGON RENOVATION	The Pentagon Renovation Project is an on-going construction project directed by Office of the Secretary of Defense and implemented by a Resident Program Manager, Corps of Engineers (COE), and a Project Manager for Information Management & Telecommunications (PM, IM&T), U.S. Army Materiel Command (USAMC). PM, IM&T is responsible for relocating existing IM&T facilities while sustaining operations and implementing a new Pentagon IM&T physical and electronic infrastructure in concert with COE construction. Relocation includes moving the National Military Command Center (NMCC)/Service Operation centers, consolidating seven Telecommunications Control facilities, collocating 11 Automated Data Processing (ADP) facilities to two facilities, and consolidating 15 command and control, tactical, and administrative telephone switches to 8. The IM&T infrastructure includes the installation of an unclassified/classified backbone and a Network and Systems Management Center. The implementation of IM&T requirements is integral to each phase of the Pentagon Renovation

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Component Title	Initiative Number	Initiative Name	Initiative Description
	1516	DED COMMEL EL ECTRONIC DECORD	construction program due to the synchronization of both programs. The Pentagon Renovation IM&T Project will provide modern integrated information and telecommunication capabilities to all levels of command in the Pentagon including OSD, the Joint Staff, Army, Navy, Marine Corp, Air Force and Defense Agencies.
Army	1516	PERSONNEL ELECTRONIC RECORD MANAGEMENT SYSTEM	The Personnel Electronic Record Management System (PERMS) provides an electronic system for the maintenance of military personnel files at headquarters level Army Personnel Records Management Centers for Active Army, Army National Guard, and Army Reserve. PERMS will continue to convert current paper and microfiche personnel files to digital images. PERMS will allow for selective retrieval of individual files, groups of files or individual documents within these files. Retrieval selections can be individually tailored to the needs of the soldier, their personnel managers and selection/promotion boards.
Army	1517	PERSONNEL ENTERPRISE SYSTEM- AUTOMATION	The Personnel Enterprise System - Automation (PES-A) is an ADP acquisition and implementation project providing the warfighter a modern power projection platform to support peacetime operations,

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			training, mobilization, force projection, split-based operations, and redeployment within the army enterprise strategy, supporting the modern projection platforms. PES-A consists of four platforms located at PERSCOM, ARPERCEN, EREC & CCF. It provides hardware/software and communications equipment to support key systems of the personnel system architecture, ensures the integration necessary to operate efficiently and maintains the total army personnel data base (TAPDB), SIDPERS
Army	1640	RESERVE COMPONENT AUTOMATION SYSTEM	data and HQS civilian personnel system (ACPERS). The Reserve Component Automation System (RCAS) is an automated information system that will provide the Army the capability to more effectively administer, manage and mobilize Army National Guard and Army Reserve forces. The RCAS will link over 10,500 Guard and Reserve units at over 4,000 locations. The RCAS will support daily operational, training and administrative tasks at all Guard and Reserve echelons, and will provide timely and accurate information to plan and support mobilization.
Army	2194	RESOURCE MANAGEMENT SYSTEMS - HQ DEPT OF ARMY	The Resource Management System funds all HQDA level resource management systems that manage,

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			control, document, and adjust Army
			resource/funding levels to reflect OSD, OMB, and
			Congressional funding guidance, and that support
			financial reporting to OSD, OMB, Congress and the
			President.
Army	2183	SCIENTIFIC & ENGINEERING RESEARCH &	The Scientific and Engineering Research and
		DEVELOPMENT	Development fund RDTE of C4I/IT to develop
			fundamental knowledge for the solution of identified
			military problems. It funds exploratory
			development, advanced development, demonstration
			and validation, engineering and manufacturing
			development, RDTE management support, and
			operational system development for C4I/IT material
			solutions.
Army	3073	SIMULATION TECHNOLOGY/WARGAMING	The Simulation Technology/Wargaming
			(WARSIM) program funds computer based
			simulation to support training of combat
			commanders from Bn to Theater level as well as
			provide command post training in educational
			institutions. WARSIM will provide a
			comprehensive training environment based on
			computer based constructs as well as live entities.
Army	3028	SITE R	The Site R program supports maintenance and
			modernization of the C4I infrastructure at the

Component Title	Initiative Number	Initiative Name	Initiative Description
	Tvumber		Alternate Joint Communication Center (AJCC) – Site R. The AJCC includes communications facilities at Site C, Site RT, and the underground facility at Site R which houses the Alternate National Military Command Center (ANMCC). As the alternate site for the National Military Command Center (NMCC), Site R must provide facilities for a seamless transition of NMCC functions in times of crisis or when the NMCC is not otherwise available. Site R ensures that as the NMCC systems and operating procedures evolve, the Site R facilities keep pace and are capable of supporting the full
Army	1738	SOUTHCOM INTEL MANAGEMENT SYSTEM	range of national Command and Control missions. The SOUTHCOM Intel Management System (SIMS) is US SOUTHCOM's primary tool for dissemination of intelligence information for the HQS and all components and JTF-Bravo. SIMS provides automated special intelligence, SCI/CI message handling capability via AUTODIN. It provides access to national level intelligence databases via DISNET III.
Army	2182	STAMIS TACTICAL COMPUTERS	The STAMIS Tactical Computers (STACOMP) are a group of Commercial Off-the-Shelf (COTS) computer systems supporting STAMIS tactical

Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			computer requirements for the US Army. These
			systems, used by soldiers on the battlefield to
			support Combat Service Support (CSS) missions at
			all levels, are transportable and user friendly.
Army	2222	STAND-ALONE MAINFRAME COMPUTERS	The Stand-Alone Mainframe Computers Operating
		OPERATING COSTS	Costs provides reporting costs of operating stand-
			alone mainframe computers that are not part of a
			data processing facility.
Army	1763	STANDARD ARMY AMMUNITION SYSTEM	The Standard Army Ammunition System (SAAS)
			provides resources for conceptual development,
			design, test and evaluation, fielding and sustainment.
			SAAS accomplishes all stock control and supply
			management interface processing functions at all
			levels of the supply system. It is operational at
			theater, corps, division, general and direct support
			levels and selected TDA activities. This system
			transfers to the Global Combat Support System,
			Army (GCCS,A) in FY04.
Army	1769	STANDARD ARMY MAINTENANCE SYSTEM	The Standard Army maintenance System (SAMS)
			automates day-to-day weapon system and sub-
			component readiness status, maintenance and related
			repair parts information and management functions
			from the tactical DS/GS level maintenance activities
			and non-tactical TDA depots to MACOM/theater

Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			maintenance program operations. Funds remaining,
			to include customer assistance helpdesk and
			emergency fixes only. This system transfers to the
			Global Combat Support System, Army (GCCS,A) in
			FY04.
Army	1783	STANDARD INSTALLATION DIVISION	SIDPERS-3 replaces the active army, USAR and
		PERSONNEL SYSTEM - 3	NG systems with one standard software system for
			wartime operations and supports the active
			component n peacetime. SIDPERS-3 will be a major
			contributor to the total army personnel database
			(TAPDB) and is to be the cornerstone of a more
			reliable and responsive automated personnel
			information system in support of basic army
			missions.
Army	1764	STANDARD ARMY AUTOMATION CONTRAC	The Standard Army Automation Contracting System
		TING SYSTEM	(SAACONS) funds standard automation support to
			all 256 Army Garrison contracting offices.
			SAACONS automates the entire spectrum of
			contracting functions. It will provide standard
			software, hardware, and system interface.
Army	1770	STANDARD ARMY RETAIL SUPPLY SYSTEM	The Standard Army Retail Supply System (SARSS)
			is designed to operate in peacetime and wartime, at
			every level from the Direct Support Unit up through
			the Theater Army Area Materiel Management

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Component Title	Initiative Number	Initiative Name	Initiative Description
			Center, and at Installation Supply Division. It provides automated stock record accounting and supply management for Classes II, III (PKG), IV, VII, and IX. It is the sole retail level supply system for the Total Army and primary enabler for Single Stock Fund implementation. It is being reengineered to be part of the Global Combat Support System – Army Integrated Material Management Center Module, Supply Support Activity GCSS-Army, FY00 support maintenance to include customer assistance help desk and emergency fixes only. This system transfers to the Global Combat Support System, Army (GCSS) in FY04.
Army	1780	STANDARD DEPOT SYSTEM	The Standard Depot System (SDS) is the Army Materiel Command Distribution, Maintenance, and Financial system. It operates at CONUS and OCONUS sites.
Army	1823	STRATEGIC LOGISTICS PROGRAM	The Strategic Logistics Program supports identification and development of recommendations of near, mid, and long-range strategic logistics solutions to conceptual; doctrinal; logistics policy, planning, and programmatic system problems. It focuses on supply, maintenance, transportation and

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Component Title	Initiative Number	Initiative Name	Initiative Description
Title	Number		distribution services; logistics financial management; the Revolution in Military Logistics
			(RML), and the AAN. Provides a Strategic
			Logistics Program that will transform logistics into a
			global, distribution-based logistics system that
			substitutes velocity for mass.
Army	1836	SUPER COMPUTER	The Super Computer program satisfies critical needs
-			for advanced computational technology for Army
			scientists, engineers and analysts, and represents the
			leading edge of high speed processing. This
			capability is not available through other technology
			and is designed to solve problems which cannot be
			resolved in other ways. Supercomputer systems are
			required to satisfy critical research and development
			missions in combat and materiel development
			programs. Significant advances in supercomputer
			technology have provided increases in both speed
			and memory. This is essential for performing fully
			time-dependent, three-dimensional computations
			and simulations directed at major new weapon
			designs or battlefield management. Examples of the
			major Army applications best suited to
			supercomputer technology include battlefield
			management, modeling/simulation, weapons

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			systems design, terrain analysis, mechanical design,
			nuclear survivability, and material dynamics and
			composition. Supercomputers are contributing to
			efforts for high leverage, high payoff programs
			which exploit technological advances, reduce
			logistics burdens, lower acquisition and operation
			and maintenance costs, and provide required
			lethality at reduced weight and volume.
Army	1840	SUPPLY MANAGEMENT AUTOMATION	The Supply Management Automation Upgrades are
		UPGRADES	an Army Working Capital Fund initiative that
			provides visibility of assets across DoD.
Army	2216	TACTICAL EQUIPMENT OPERATIONS	The Tactical Equipment Operations funds for the
			refurbishment and redistribution of CE/C4I
			assemblages which are displaced by new equipment
			fieldings. This allows the entire force to modernize
			including the reserve and NGB components.
Army	1923	TOTAL ARMY PERSONNEL DATA BASE	The Total Army Personnel Database (TAPDB) is the
			Army's centralized data repository of personnel data
			for the management of the total force. TAPDB
			provides the Army with a set of logically integrated,
			physically distributed relational data bases with
			standardized data elements. TAPDB supports, AA,
			USAR, and NGB.
Army	1924	TOTAL DISTRIBUTION PROGRAM	The Total Distribution Program (TDP), an initiative

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		•
			originally put in place by the Vice Chief of Staff,
			Army (VCSA) to correct deficiencies in the
			distribution of materiel, equipment, personnel
			replacements, and mail, which occurred during
			Operation Desert Shield/Storm. The program is
			being refocused, at the direction of the TDP General
			Officer Steering Committee (GOSC), to execute the
			Distribution Based Logistics System (DBLS) of the
			future, supporting the Revolution in Military
			Logistics (RML). The transformation of Army
			logistics into a distribution-based system relies on
			distribution velocity rather than redundant mass to
			provide support to the warfighter. The refocused
			program is envisioned to integrate all logistics plans,
			programs, and issues which support the Force
			Sustainment Domain of the RML. The purpose of
			the TDP initiative is to develop an effective
			distribution pipeline with Total Asset Visibility
			(TAV) from initial shipping point to destination.
			Critical corrective actions include development and
			fielding of communications capability for logistics,
			the use of emerging technologies to enhance
			visibility and materiel accountability, upgrade of
			critical distribution management systems, fielding

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Component Title	Initiative Number	Initiative Name	Initiative Description
			and maintenance of the required distribution infrastructure, as well as doctrinal changes in distribution management.
Army	1935	TRANSPORTATION COORDINATORS AUTOMATED INFORMATION SYSTEM II	The Transportation Coordinators Automated Information System II (TC AIMS II) is a Joint migration system that will provide a base-level integrated traffic management office (TMO) and unit move capability. It supports the warfighting CINCs by providing in-transit visibility (ITV) data to the Global Transportation Network (GTN) as well as source data to the Joint Operational and Planning Execution System (JOPES) through feeder systems. TC-AIMS II is a joint program which will consolidate management of the unit/installation-level transportation functions of Unit Movement, Load Planning and Installation Transportation Office/Traffic Management Office (ITO/TMO) operations into a single automated capability for use throughout DoD. Reducing systems redundancy, functionality of unit movement, load planning and ITO/TMO transportation AISs will be migrated into TC-AIMS II applications. TC-AIMS II will provide a common hardware suite running software applications designed for easy data retrieval, data

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Component Title	Initiative Number	Initiative Name	Initiative Description
			exchange and connectivity to relevant external sources. Open systems architecture is emphasized throughout for standardization and interoperability and for ease of system growth and maintenance. For the Air Force, it will replace the Cargo Movement Operations System (CMOS) and the Deployment Management System (DeMS).
Army	2003	UNIT LEVEL LOGISTICS SYSTEM	The Unit Level Logistics System (ULLS) is a standard, automated logistics system for unit supply and maintenance management operations. Repair parts supply functions; maintenance management operations, aircraft records and historical data are automated to improve accuracy and timeliness. It consists of three applications: Ground, Aviation and S4. ULLS/SPBS-R is the base system for generating AMSS and CBS-X material status and asset visibility reports. Funds remaining after realignment to new GCSS-Army, FY00 support maintenance to include customer assistance help desk and emergency fixes only. This system transfers to the Global Combat Support System, Army (GCCS) in FY04.
Army	2186	UNITED STATES MILITARY ACADEMY AUTOMATION	The United States Military Academy Automation (USMA) is an accredited institution of higher

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		
			learning. To maintain its accreditation standards and
			to instruct/prepare future Army leaders to operate in
			the sophisticated high-tech world of modern warfare
			in accordance with Joint and Army Visions, it must
			employ in its classrooms/laboratories the latest
			technology/instructional tools.
Army	2011	US ARMY KWAJALEIN ATOLL LOGISTICS	The US Army Kwajalein Atoll Logistics
		INFORMATION MANAGEMENT SYSTEM	Information Management System funds an
			automated logistics system to support DoD functions
			on Kwajalein: a Defense Satellite Communication
			System (DSCS) terminal, a DSCS tracking terminal,
			and missile tracking radar.
Army	2102	<u>USAREUR COMMUNITY AUTOMATION</u>	The USAREUR Community Automation System
		<u>SYSTEM</u>	(UCAS) is a standard, shared, centralized relational
			database and automated information system to
			support USAREUR community BASOPS functions;
			modernizes operations by eliminating redundant
			data collection from multiple sources; improves data
			accuracy and timeliness; provides shared access to
			information by all community work centers; and
			promotes horizontal integration of community
			business processes by supporting shared access to
			information in other USAREUR standard and
			STAMIS systems.

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Component	Initiative	Initiative Name	Initiative Description
Title	Number		
Army	5047	WARFIGHTER SIMULATION 2000	Provides for development and fielding of
			Warfighters Simulations (WARSIM) 200
			0/WARSIM Intel Module. The Army's next
			generation of consecutive simulation which replaces
			current legacy system (CBS, BBS, TACSIM, and
			CSSTSS). Supports the Joint Simulation System
			(JSIMS) as Executive agent(EA) for the land
			warfare domain.

Component	Initiative	Initiative Name	Initiative Description
Title	Number		
Army	2076	WORLDWIDE PORT SYSTEM	The Worldwide Port System (WPS) is a Military
			Traffic Management Command (MTMC) automated
			information system initiative essential to effective
			force projection and in-transit visibility of unit and
			sustainment cargo. WPS is one of several systems
			that provide movement control support to the
			Army's Strategic Mobility Program, initiated as a
			result of lessons learned from Operation Desert
			Shield/Storm. WPS will support MTMC ocean
			terminals, US Navy port activities worldwide,
			FORSCOM Reserve Component Transportation
			Terminal Units, and Active Component Automated
			Cargo Documentation Detachments with worldwide
			warfighting support missions. Compact and
			transportable, WPS substantially increases the
			ability of the Defense Transportation System to
			provide in-transit visibility information to the
			warfighting CINCs and USTRANSCOM, while
			reducing the personnel required to operate the
			system and the transportation required to deploy the
			system to remote places. WPS will replace aging
			Automated Information Systems (AISs) that support
			ocean terminal management and cargo
			documentation missions during peace and war. The

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Component Title	Initiative Number	Initiative Name	Initiative Description
			replaced AISs included the obsolete Terminal
			Management System in CONUS, and the Army
			Standard Port System – Enhanced.