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DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

INFORMATION TECHNOLOGY/NSS EXHIBIT

FISCAL YEAR (FY) 2002 AMENDED BUDGET ESTIMATES

JULY 2001

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INFORMATION TECHNOLOGY EXECUTIVE OVERVIEW

Soldiers On Point for the Nation"…"Persuasive in Peace, Invincible in War"… Our Army, its priorities -- People, Readiness, and Transformation. Our soldiers are the centerpiece of our formations, of our Army. We train soldiers and grow leaders. Leadership is our stock-in-trade. Our Nation's security and well-being depend on our investments in our Army, our soldiers, civilians, retirees, and their families. We will fully man the force to support our current missions. We will support well-being for our soldiers, civilians, retirees, and their families. We will fully authorize and fund Transformation: supporting the Objective Force, the Legacy Force, and the Interim Force. Readiness is our top priority. We will maintain our non-negotiable contract with America to fight and win the Nation's wars as we transform to support National Military Strategy and Commander-in-Chief (CINC) requirements. All the while, we will Transform our Army to be more strategically responsive and dominant at every point on the spectrum of military operations. With our soldiers as our centerpiece, we will Transform the Army to the Objective Force while maintaining readiness to execute National Military Strategy.

Operational doctrine has shifted to accommodate planning for small-scale contingencies in which the United States is confronted with global hot spots requiring a range of responses. To accommodate this shift it has been determined that heavy forces are difficult to deploy and must be transformed to more fully support the National Military Strategy. The Chief of Staff has challenged the status quo and initiated a process to transform the Army into a more lethal, lightweight, strategically relevant and deployable force that will be better suited to meet future defense challenges. The Army's Transformation Concept was supported by the FY01Congressional Budget. To be successful in the near-term in transforming to an interim force and in the long term to the objective force, a critical enabler is a robust command, control, communication, computers (C4) and information technology (IT) program.

Information superiority is a key enabler for achieving the Army's Transformation goals and supporting its modernization into the objective force. In order to achieve information superiority, the Army must make several substantial investments. By establishing split-based operations and improving reach back capabilities the Army will be able to obtain supplies and equipment more rapidly, moving them onto the battlefield quickly and, thus, reducing the requirement for forward equipment stockpiles. Command and control (C2) systems must provide a more concise, timely, accurate and secure view of the battlefield. The Army can accomplish

these capabilities by enhancing communications throughput with improved C4/IT infrastructure. In addition to information superiority, the ability to recruit and retain quality soldiers is paramount. Recruiting is one of the Army's greatest challenges in today's competitive environment. Laptops, supported with the latest information, are allowing recruiters to present the Army story better and more comprehensively. While people are an indispensable component of readiness, the new recruits must be trained. The Army is capable of training soldiers both at home and in the tactical environment through Distance Learning and Computer Based Training.

The **Army Chief Information Officer (CIO)**, Director of Information Systems for Command, Control, Computers and Communications (DISC4) and his staff continue to aggressively implement the Clinger-Cohen Act (CCA).

The Army CIO works closely with senior Army leadership to ensure the Army's scarce information technology dollars are appropriately spread between the operational forces and sustaining base - across the functional business areas – personnel, logistics, medical - that support the warfighter and ensure maximum mission accomplishment – Persuasive in Peace – Invincible in Battle.

The CIO and his staff continue to implement Clinger-Cohen across the ten core CIO competencies identified by the CIO council: policy, architecture, capital planning and investment, information resources and strategic planning, technology assessment, acquisition, process improvement, IT workforce training and professional development, performance and results based management, and security. A quick assessment of the Army's CIO accomplishments in these areas follows.

POLICY

Army Regulation 25-1, Army Information Management, was published February 2000. This publication is the Army's capstone document for information management and technology. It promulgates requirements of the Clinger-Cohen Act throughout the Department of Army. Interim policy memoranda provided Army-wide visibility for information technology policy through a central repository on the Chief Information Officer web site. An Army-wide working group continues to develop implementing procedures

that will be published in a forthcoming Army pamphlet. The Army Electronic Commerce (EC) office drafted and coordinated the Army's formal policy document on electronic business/electronic commerce (EB/EC).

ARCHITECTURE

Army Enterprise Architecture (AEA) has evolved to the point that its impact is being felt on the development, acquisition, and fielding of Information Technology systems under Army modernization. The Chief Information Officer developed a master plan to synchronize architecture development, established architecture requirements within Army Regulation 25-1, and developed a guidance document to set standards for Army architecture products. These steps supported the achievement of a major Army Enterprise Architecture milestone – the release of the 1st Digitized Force Systems Architecture and the use of that architecture data to influence fielding numbers for warfighter radio systems in the 4th Infantry Division. Use of this data ensures the most effective allocation of limited information technology resources, as well as architectures to support Joint Contingency Force Advanced Warfighting Experiment and Initial Brigade Combat Team (IBCT). The Army Enterprise Architecture also established working-level programs to enhance information technology interoperability with allied and coalition forces.

Installation Information Infrastructure Architecture is a major element within the Army Enterprise Architecture. Over a period of three years, the architecture program has established a coordinated and cohesive approach for architecture modernization at all Army installations. The program developed target architecture models, including costs, and applied them to installations. This effort resulted in an unprecedented comprehensive database and uniform approach to modernization for active Army, Reserve, and National Guard installations. This achievement gave OSD the confidence to increase funding for Army installation information infrastructure modernization by a half a billion dollars.

A major achievement in the data management arena was the work with Department of Defense, Joint, and Service communities to establish the Core Architecture Data Model as a standard data structure enabling interchange and interoperability of architecture data. The Army established detailed extensions of the model and has developed architecture data repositories that can be used to support complementary efforts such as modernization of tactical units and the installations on which they reside.

CAPITAL PLANNING AND INVESTMENT

The Army Chief Information Officer Investment Strategy complies with the implementation of the Clinger-Cohen Act and Executive Order 13011 by providing framework and process to select key technology investments supporting the Army's strategic mission areas.

THE CIO INVESTMENT STRATEGY IS A STRUCTURED, RIGOROUS PROCESS THAT ENGAGES A BROAD COMMUNITY OF STAKEHOLDERS WHO SELECT AND PRIORITIZE INVESTMENTS SUPPORTING THE CIO STRATEGIC MISSION AREAS AND CORE COMPETENCIES.

The Investment Strategy shapes this FY 02 President's Budget Information Technology Budget (ITB) as it did the three previous Army budgets to carefully balance its priority investment requirements to "Transform" the Army while maintaining our current readiness and providing for our soldiers – their salaries, their families, and their health care needs.

The Army CIO's Investment Strategy has been in place for four years and has proven to be a corporate success. It is based on strategic objectives outlined in the Army Plan (TAP) that provides the Army's strategic framework. The TAP includes the Army direction, required operational capabilities, and the programmatic guidance that ultimately produces the C4/IT investment program and budget.

The CIO Investment Strategy is developed through the collaborative efforts of the Army's multi-functional community of C4/IT stakeholders, to include Joint representation, that collectively determine the "best value" investment solutions for the Army's most critical C4/IT capability shortfalls. Last year we incorporated performance measures into the process. This year we are incorporating risk management factors.

The Army investment strategy is composed of the following investment areas: Architecture, Information Assurance, Battlefield Communications & Network Management, Satellite Communications, C4/IT Infrastructure, Distance Learning, Focused Logistics, Force Management Modernization & Integration, and Battlespace Awareness issues.

Currently, the Army's top FY02 Investment Strategy gaps that require support from Congress are C4/IT Infrastructure, Information Assurance, Modernized Battlefield Comms and Network Management, and Battlespace Awareness - all key enablers to accomplish the Army's mission through the rapid transmission of secure information to ensure information and decision superiority. It is important to our future that we are able to transmit, protect and manage our intelligence/information.

To remain an information dominant force and to achieve the Army's Transformation goals while supporting its modernization and recapitalization as we move toward the objective force, it is imperative that the following systems remain in the forefront and remain supported by Congress.

C4/IT systems that have direct impact on **Transformation** are: Single Channel Ground and Airborne Radio System (SINCGARS), Enhanced Position Locating and Reporting System (EPLRS), Near Term Digitial Radio, Force XXI Battle Command Brigade and Below (FBCB2), Maneuver Control System (MCS), Global Combat Support System-Army (GCSS-A), Standard Installation Division Personnel Reporting System 3 (SIDPERS 3), Transportation Coordination-Automated Information Management System II (TC AIMS II), and Installation Information Infrastructure Master Plan (I3MP).

Modernization is the development and/or procurement of new systems with improved warfighting capabilities. Those major C4/IT systems that are being modernized are: Joint Tactical Radio System (JTRS), Warfighter Information Network-Tactical (WIN-Tactical), Secure Mobile Reliable Anti-jam-Terminal (SMART-T), SHF Tri-band Range Extension Terminal (STAR-T), Army Battle Command System (ABCS), GCSS-A, and Global Broadcast System (GBS).

Recapitalization is the rebuilding and selected upgrade of currently fielded systems to ensure operational readiness. The major C4/IT systems that are being recapitalized are Army Common User System Modernization (ACUS MOD), I3MP, Global Command and

Control System-Army(GCCS-A), Single Channel Anti-jam Manportable Terminal (SCAMP), ABCS, and Army Tactical Command and Control System (ATCCS).

We are also **maintaining** and upgrading our priority software applications to improve business practices and/or functionality, replenishing our outdated hardware, and enhancing security. The major C4/IT systems that must be maintained are: EPLRS, Defense Satellite Communication system (DSCS), SINCGARS and SPITFIRE (not an acronym, a small radio).

Within the C4/IT Infrastructure investment area - The Installation Information Infrastructure Modernization Program (I3MP) is the initiative to replace outdated switching and information transport technology with efficient state of the art commercial-off-the-shelf equipment. It provides high-speed data and voice connectivity at Army installations worldwide. I3MP uses a suite of competitive indefinite delivery/indefinite quantity (ID/IQ) contracts that leverage competition to provide cost effective engineering, integration, installation, training, logistics and life cycle sustainment products and services. It provides troops deployed around the world with instantaneous mission reach back power projection platforms. I3MP digitizes the sustaining base installations to enable transformation in such areas as multimedia applications, image processing for intelligence, maneuver control, telemedicine and telemaintenance.

Within the Information Assurance investment area - Information Superiority is becoming more of a reality and information assurance mission requirements are growing in scope. We must evaluate adversarial access and exploitation capabilities, identify our system vulnerabilities and conduct risk assessments in the installation and tactical environments. These evaluative processes must be performed in both the Information Dominance Center for the Land Information Warfare Activity and within the Army Computer Emergency Response Team. Passwords are becoming extremely vulnerable to exploitation. Therefore, it is imperative that we advance our identification processes and expand into the Public Key Infrastructure and Common Access Card technology as well as the Biometrics technology to further protect our networks as well as our facilities.

With increased emphasis to provide better services to soldiers, civilians, and contractors who support the day-to-day mission, it is imperative that the Army becomes a knowledge based organization and streamlines its business processes, lowers total-cost-of-

ownership and reduces cycle times. Technology has matured in recent years and enables dispersed offices to bring greater intellectual assets to bear on organizational decision making. The increased sophistication of web technologies allows us to conduct business from various geographic locations, leveraging corporate intellectual assets from any location, at anytime, to improve mission accomplishments. Improved search engines and portal technology provides an opportunity for the Army to capture, filter and disseminate pertinent information. The Army's answer to this expanding requirement is Knowledge Management.

INFORMATION ASSURANCE

Army Information Assurance (IA) goal is to secure the Army portion of the Global Information Grid (GIG) and to provide secure information and information based system protection to the force. Securing the GIG and protecting information and information systems is accomplished through implementing a Defense-in-Depth strategy. The Defense-in-Depth approach integrates the capabilities of people, operations, and technology to establish multi-layer, multi-dimension protection. The Army's strategy for implementing Defense-in-Depth in accordance with DoD policy and guidance is the Network Security Improvement Program (NISP) initiative.

The Army's NSIP is a comprehensive agenda of innovative policies and procedures, state-of-the-art hardware/software enabling technologies (e.g., firewalls, intrusion detection systems, proxy technologies, and biometrics), and new training and retention initiatives designed to protect the Army's critical information infrastructure from the sustaining base to the deployed force. The NSIP integrates IA security solutions into the C4I architectures of both sustaining base installations and the digitized tactical force structure under the Force XXI Protection Plan. Quality training is the key to success and Army System Administrator and Network Manager security training has been expanded from one laboratory with 240 spaces annually in April of 1998 to 12 laboratories with 2,760 spaces annually.

Army led the way in exploring the application of new commercial-off-the-shelf (COTS) technologies such as biometrics (the use of fingerprints, retinal and iris scanning, hand geometry, voice and facial pattern recognition) to provide definitive access control to critical information and weapons systems in all environments. This leadership was recognized on July 13, 2000, when the President

signed Public Law 106-246 naming the Army as Executive Agent chartered to lead, consolidate, and coordinate all biometrics IA activities for Department of Defense (DoD). The Army Chief Information Officer established the Biometrics Management Office to serve as the center of gravity over the full spectrum of biometric systems and technologies.

A detailed description of Army Information Assurance by Defense-in-Depth can be found in the National Security Agency (NSA) Information Assurance Congressional Justification Book.

INFORMATION RESOURCES STRATEGIC PLANNING

The Army CIO and staff play an active role in all levels of resource allocation forums at HQDA in the Planning, Programming, Budgeting and Execution System (PPBES) process. Senior CIO staff officers participate in the resource deliberations for all Title X missions and associated C4/IT enablers: manning, training, equipping, sustaining, organizing, and installations. The VDISC4/DISC4 acting as Integrators represent the CIO at the two and three star level forums that prioritize Army wide programs. The Army CIO works closely with the DoD and other Service CIOs to ensure CIO interests are appropriately addressed in Defense Planning Guidance and other defense-wide planning documents. The CIO is establishing an executive level Strategic Planning Group that will guide the CIO and the Army as it transforms itself into its Objective Force.

TECHNOLOGY ASSESSMENT

The CIO/DISC4 has established the Strategic Army Computing Center (SACC) as a Center of Excellence to ensure the Army moves from a state of "information overload" to a Knowledge Centric organization leveraging Enterprise Knowledge to improve our decision making. This will ensure we can correctly interpret knowledge on the battlefield – make better and quicker decisions than our adversaries and achieve Information Dominance. Additionally, the CIO oversees the Army Research, Development, and Engineering Center (RDEC) at Fort Monmouth, NJ and the Army Battle Lab at the Signal School, Fort Gordon, GA. The CIO/DISC4 leads Army participation in the Joint Warrior Interoperability Demonstrations (JWID) conducted annually with the other Services and our

coalition partners. Each of these efforts focuses on leading edge technology and putting that technology into the hands of the warfighter as quickly as possible.

ACQUISITION

The Chief Information Officer serves as Army lead on the Enterprise Software Initiative and played a key role in developing and implementing the first Department of Defense Enterprise Software Initiative software agreement. In implementing the initiative, the Army:

- Created the standard for agreements for achieving significant discounts.
- Developed and implemented the first Enterprise Software Initiative financial concept on use of Department of Defense and Army Working Capital Funds to forward fund software procurements for Department of Defense.
- Conducted the first Department of Defense legal review of the Working Capital Fund and Enterprise Software Initiative concepts for signature by the Secretary of the Army for use by the Under Secretary of Defense.
- Consistently achieved 60% to 80% discounts on software database, enterprise management, desktop, engineering and record management software for both Department of Defense and the Army.
- Achieved DoD savings to date totaling more than $690 million.

Serving as the Military Deputy for C4/IT to the Army Acquisition Executive, the Army CIO assures programs meet requirements as outlined in the Clinger-Cohen Act. The Chief Information Officer assesses all special interest programs and Category I and II acquisitions. These assessments are performed prior to all milestone decisions. Three assessments were completed in FY01 Army Recruiting Information Support System (ARISS), the Bradley Upgrade and the Blackhawk Utility Helicopter (UH –60L) Upgrade. There are two in-progress, the Reserve Component Automation system (RCAS) and Multiple Launch Rocket system (MLRS) Launcher (M270A1). There are approximately ten remaining.

The Army has approximately four programs going through the CIO certification process this year. They are Reserve Component Automation System (RCAS), Joint Computer Aided Logistics and Acquisition Support (JCALS), Global Combat Support System-Army (GCSS-A), and Global Command and Control System-Army (GCCS-A).

This certification requirement was introduced in the FY 2000 Appropriation's Bill and since has been carried forward into future years with the FY 2001 Appropriation and Authorization Bills.

PROCESS IMPROVEMENT

The DISC4/CIO has reminded all Army elements of the CCA requirements to do a business process improvement review (BPR) of a function before applying IT to it. The CIO has also established a web-accessible database to provide BPR assistance, guidance, tools, and a repository to collect and share process improvement initiatives.

IT WORKFORCE TRAINING AND PROFESSIONAL DEVELOPMENT

To ensure adequacy of agency personnel knowledge and skills in achieving information resource management performance goals, the Chief Information Officer has:

- Promoted techno-business university programs in Information Technology Management,
- Provided Army-wide distance learning in information technology and Chief Information Officer practices (leadership, business, and technical competencies),
- Implemented Training with Industry program with top-tier companies,
- Promoted the Advanced Management Program and the Chief Information Officer Certificate programs offered at the Information Resources Management college of the National Defense University,
- Advertised executive development through Chief Information Officer University consortium, and
- Provided *Implementing Clinger-Cohen* course for Information Technology Management (ITM) professionals at field sites.

The Chief Information Officer computer-based training initiative was the first such initiative for all Army soldiers on active duty, Reserve and National Guard components and Army civilian employees. In less than two years the program achieved over 130,000 registered students using over 1,100 computer based training courses. This program is considered to be the largest Internet computer based training program in the world. Students have completed rigorous training leading to certifications in areas such as Microsoft Certified Systems Engineering. The student reaction is very positive.

PERFORMANCE AND RESULTS BASED MANAGEMENT

The Chief Information Officer instituted a requirement for performance measurements in information technology investment programs, established an installation-level information technology Metrics Program, and developed Strategic Action Plan/Guidance for development and implementation of Army Enterprise Architecture performance measurement. Performance measurement criteria are an integral part of the Army Strategic Investment selection and evaluation process. Concurrently, the CIO is actively involved with its DoD counterparts, and the C4/IT Program Executive Offices (PEOs) to develop performance measures to use to ascertain the performance based and results-based management of C4/IT systems.

SECURITY

To ensure adequate Information Security policies, procedures, and practices, the Chief Information Officer has completed the following actions:

- Established a Biometrics Office with the help of Congress to provide definitive access control to critical information and weapons systems,
- Acquired universal Information Assurance tools for System Administrators and Network System Managers,
- Completed all Non-secure Internet Protocol Router Network points of presence security technology overlays,

- Developed and implemented Army Defense In Depth, a detailed description of Army Defense-in-Depth can be found in the National Security Agency (NSA) Information Assurance Congressional Justification Book,
- Chaired a committee on Information Assurance specification for Government Smart Card,
- Restructured the Public Key Infrastructure Program to incorporate Common Access Cards,
- Established the Army Computer Emergency Response Team infrastructure and central reporting process to protect information technology systems across the full spectrum of military operations, and
- Developed a comprehensive information assurance training and certification program, twelve training laboratories with 2,760 spaces annually.

CONCLUSION

As we move into this new millennium, our challenge is to build the appropriate force and support structure that will provide the Nation with a 21st Century Army trained and equipped to fight and win – Persuasive in Peace, Invincible in War. The Chief Information Officer's (CIO) challenge continues to be to provide Command, Control, Communications and Computers/Information Technology capabilities to support the Army's Vision: People, Readiness, and Transformation. Currently, the Army's top FY02 Investment Strategy gaps that require support from Congress are C4/IT Infrastructure, Information Assurance, Modernized Battlefield Communications and Network Management, and Battlespace Awareness - all key enablers to accomplish the Army's mission through the rapid transmission of secure information to ensure information and decision superiority. It is important to our future that we are able to transmit, protect and manage our intelligence/information. Knowledge Management provides value-added information and knowledge transfer at the right time and place that is critical to the Army enterprise allowing it to maximize its limited resources to achieve more productivity and better advance its whole enterprise. The benefits we will derive from these investments will assist the Army to meet its vision.

CHANGES SINCE THE FY01 PRESIDENT'S BUDGET

FY01 Military Construction (MILCON) Appropriation Bill directed the Army to be the OSD Executive Agent for biometrics. The Director of Biometrics has studied the feasibility and legality of utilizing biometrics initiatives throughout OSD. He has also established a repository and testing facility in West Virginia. He is now in the process of testing commercial-off-the-shelf (COTS) initiatives that can become the OSD standards and performing system pilot projects to determine the benefits to be derived utilizing those technologies.

The Army has done extensive investigation/analysis into the Army's I3MP initiative designed to assess the state of Army installation information infrastructures within Continental United States (CONUS). We recognize the need to implement a robust, modernized information infrastructure solution tailored to meet each installation's needs worldwide. During the last program cycle, the Army introduced the OCONUS Infrastructure requirement into the PPBES process and received support from OSD. Army continues to recognize this requirement as one of its primary issues.

The Army has drafted its Knowledge Management Strategic Plan that outlines how the Army will make the collective information, expertise, and experience of the Army Enterprise available to each individual knowledge worker, i.e., to leverage the intellectual capital of our most important assets, our soldiers, our leaders. Several important things must happen before we can fully implement Knowledge Management throughout the Army. We must develop our infrastructure to accommodate faster processing capabilities and increased dissemination requirements, develop an easily accessible enterprise portal, employ content management tools to organize and structure the Enterprise information, and finally we need to share knowledge across the Enterprise by using enabling techniques such as collaborative tools and expertise locators.

Department of the Army
Information Technology Portfolio Assessment and Overview
FY 2002 Amended Budget Estimates

Dollars in $000	Funding				Difference	
	President's Budget 01		President's Budget 02			
	FY01	FY02	FY01	FY02	FY01-FY01	FY02-FY02
Procurement	1,268,085	1,367,226	1,774,546	1,426,029	506,461	58,803
Military Pay	85,634	8,349	84,727	93,822	(907)	5,473
Operation and Maintenance	1,577,321	1,629,267	1,894,808	1,904,936	317,487	275,669
Research and Development	841,608	874,771	871,067	981,493	29,459	106,722
Family Housing	3,176	2,904	3,998	3,990	822	1,086
Defense Working Capital Funds	175,717	177,438	252,819	243,128	77,102	65,690
Total	3,951,541	4,139,955	4,881,965	4,653,398	930,424	513,443

FY 2002 Amended President's Budget totals for FY01 and FY02 include increases over the FY01 President's Budget submission (24% and 12%, respectively). Significant FY01/02 funding changes for specific program areas include Base Level and Long Haul Communication Infrastructure ($198M/$277M), Digitization ($253M/$199M), Communication Network and Systems Management ($66M/$79M), Information Assurance Programs ($53M/$21M), Distributive Training Technology ($61M FY01), Warfighter Information Network-Terrestrial (WIN-T) ($75M FY01), and I3MP ($27M FY01). These changes are attributable to Congressional increases (FY01), program increases (FY02 and out), and more complete reporting for several initiatives formerly reported in the Congressional Justification Book (CJB) which were first reported in the FY01 President's Budget submission.

ACCOMPLISHMENTS SINCE THE FY01 PRESIDENT'S BUDGET

The All Source Analysis System (ASAS) has received Milestone III decision for the Analysis and Control Team Enclave (ACT-Enclave) and for the ASAS-Light System.

The Army Airborne Command and Control System (A2C2S) delivered prototype system to the 4th ID for Division command Post Exercise II DCX II. The program is two quarters ahead of schedule, contract award is expected before the end of FY 01.

The Single Channel Ground and Airborne Radio System (SINGCARS) successfully completed the hand off of over 100,000 SINCGARS radios to the force. This included the fielding of the Advanced System Improvement Program (ASIP) radios (49,480) to the active force, the 1st Interim Brigade Combat Team and the refielding/cascade of displaced radios to the National Guard and Reserve component. The fielding effort included the training of over 40,000 soldiers. The Army awarded the first option of the SINCGARS production contract. This option procures 1,900 additional ASIP radios for the Army National Guard, and additional 600 radios for support of the 3rd Interim Brigade Combat Team.

WIN-Tactical (WIN-T) was approved by the Joint Requirement Operations Council (JROC) in Dec 00. The Army is driving toward a Milestone B decision in 2Qtr FY02. The IIPT process has begun, and the PM hosted an Industry Day in May 00 at which approximately fifty potential bidders participated. WIN-T is the Army's new tactical communications infrastructure that will replace existing Mobil Subscriber Equipment (MSE) and Tri Services Tactical (TRITAC).

The Joint Network Management System (JNMS) concluded a six-month source selection process and awarded a contract to Science Application International Corporation (SAIC). JNMS is a Joint warfighter C4 mission critical Acquisition Category (ACAT) III program that will provide automated network management at Joint Task Force level.

The Integrated System Control (ISYSCON) Conditional Material Release was signed on 5 Mar 01. Additionally, the PM also secured the Software Material Release for P2 Inc 1.5 (the digitized baseline) for Army wide fielding. The ISYSCON V4/Tactical Internet Management System (TIMS) received Milestone C approval 18 Jun 01.

The Secure Mobile Anti-jam Reliable Tactical Terminal (SMART-T) program has overcome reliability issues that caused the program to slip and Congress to decrement funding in FY00 and 01. The SMART-T is on the path to conclude Reliability Growth Testing (RGT) testing by mid-Jul, enter Full Operational Testing & Evaluation (FOT&E) in Sep 01 and execute the next production award in Dec 01.

Information Assurance (IA) – the Army implemented a proxy server installation program which protected over one hundred Army websites from thousands of attempted defacements without a single successful attack. The Army has installed and staffed twelve IA training classrooms at locations around the world to bring up-to-the-minute training to soldiers while minimizing travel/TDY costs. We have published policies on wireless technology, malicious mobile code, personal electronic devices, hard-drive wiping technologies, and a host of others.

Department of Defense
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Report List of Major Programs Submitted

Title	Initiative	Acquisition Agent	Business Executive Agent
ARMY ENTERPRISE ARCHITECTURE	2103	Army	Army
ARMY RECRUITING INFORMATION SUPPORT SYSTEM	6040	Army	Army
CLOSE COMBAT TACTICAL TRAINER	5053	Army	Army
GLOBAL COMBAT SUPPORT SYSTEM - ARMY	5070	Army	Army
GLOBAL COMMAND AND CONTROL SYSTEM - ARMY	6491	Army	Army
INFORMATION SYSTEM SECURITY PROGRAM	0967	Army	Army
INSTALLATION INFORMATION INFRASTRUCTURE MODERNIZATION PROGRAM	2180	Army	Army
JOINT COMPUTER-AIDED ACQUISITION AND LOGISTICS SUPPORT	1039	Army	Army
JOINT SIMULATIONS SYSTEM	2148	Army	Army
PENTAGON RENOVATION	1499	Army	Army
RESERVE COMPONENT AUTOMATION SYSTEM	1640	Army	Army
STANDARD INSTALLATION DIVISION PERSONNEL SYSTEM - 3	1783	Army	Army
THE ARMY DISTANCE LEARNING PROGRAM	0688	Army	Army
TRANSPORTATION COORDINATORS' AUTOMATED INFORMATION FOR MOVEMENTS SYSTEM II	1935	Army	Army
WARFIGHTER SIMULATION 2000	5047	Army	Army
WHOLESALE LOGISTICS MODERNIZATION	6298	Army	Army

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	FY 2000	FY 2001	FY 2002
IT Resources Summary			
Army Exhibit Total, IT Investments	**3,554,836**	**3,280,158**	**3,258,587**
Development Modernization	1,201,960	1,179,350	1,153,108
Current Services	2,352,876	2,100,808	2,105,479
Army Exhibit Total, Major	**1,114,561**	**1,089,308**	**1,127,926**
Development Modernization	852,659	826,321	822,792
Current Services	261,902	262,987	305,134
Army Exhibit Total, Non-Major	**2,163,006**	**1,991,009**	**1,918,545**
Development Modernization	295,227	292,083	279,603
Current Services	1,867,779	1,698,926	1,638,942
Army Exhibit Total, All Other	**277,269**	**199,841**	**212,116**
Development Modernization	54,074	60,946	50,713
Current Services	223,195	138,895	161,403

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	FY 2000	FY 2001	FY 2002
Functional Area Applications			
Total, IT Investments for FAA	**1,541,971**	**1,479,725**	**1,314,434**
Development Modernization	767,497	728,746	593,166
Current Services	774,474	750,979	721,268
Total, Major, FAA	**717,071**	**657,090**	**623,501**
Development Modernization	543,962	502,299	437,779
Current Services	173,109	154,791	185,722
Total, Non-Major, FAA	**682,946**	**705,741**	**584,295**
Development Modernization	169,461	165,501	104,674
Current Services	513,485	540,240	479,621
Total, All Other, FAA	**141,954**	**116,894**	**106,638**
Development Modernization	54,074	60,946	50,713
Current Services	87,880	55,948	55,925
Major for FAA			
ALL SOURCE ANALYSIS SYSTEM (0108)	**115,999**	**115,098**	**86,855**
Development Modernization	115,880	115,059	86,811
Current Services	119	39	44
ARMY RECRUITING INFORMATION SUPPORT SYSTEM (6040)	**25,988**	**20,056**	**44,113**
Development Modernization	14,156	14,881	26,885
Current Services	11,832	5,175	17,228

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	FY 2000	FY 2001	FY 2002
CLOSE COMBAT TACTICAL TRAINER (5053)	**94,389**	**72,335**	**66,047**
Development Modernization	76,493	49,287	35,347
Current Services	17,896	23,048	30,700
DEFENSE CIVILIAN PERSONNEL DATA SYSTEM (0573)	**13,835**	**20,298**	**8,367**
Development Modernization	0	7,449	6,859
Current Services	13,835	12,849	1,508
GLOBAL COMMAND AND CONTROL SYSTEM - ARMY (6491)	**76,399**	**70,734**	**56,785**
Development Modernization	23,732	24,285	22,123
Current Services	52,667	46,449	34,662
INSTALLATION SUPPORT MODULES (DOWN SCOPE OF SBIS 1853) (5046)	**13,725**	**14,122**	**14,084**
Development Modernization	0	4,635	4,695
Current Services	13,725	9,487	9,389
JOINT COMPUTER-AIDED ACQUISITION AND LOGISTICS SUPPORT (1039)	**117,259**	**120,370**	**89,489**
Development Modernization	102,419	103,546	60,088
Current Services	14,840	16,824	29,401
JOINT SIMULATIONS SYSTEM (2148)	**0**	**0**	**38,122**
Development Modernization	0	0	30,985
Current Services	0	0	7,137

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	FY 2000	FY 2001	FY 2002
RESERVE COMPONENT AUTOMATION SYSTEM (1640)	**102,228**	**118,431**	**113,104**
Development Modernization	82,683	97,902	89,319
Current Services	19,545	20,529	23,785
STANDARD INSTALLATION DIVISION PERSONNEL SYSTEM - 3 (1783)	**21,832**	**17,817**	**14,953**
Development Modernization	12,673	15,948	13,547
Current Services	9,159	1,869	1,406
TOTAL DISTRIBUTION PROGRAM (1924)	**41,616**	**30,166**	**38,420**
Development Modernization	31,898	19,121	19,827
Current Services	9,718	11,045	18,593
TRANSPORTATION COORDINATORS' AUTOMATED INFORMATION FOR MOVEMENTS SYSTEM II (1935)	**49,212**	**27,145**	**43,072**
Development Modernization	39,439	19,668	35,403
Current Services	9,773	7,477	7,669
WARFIGHTER SIMULATION 2000 (5047)	**44,589**	**30,518**	**10,090**
Development Modernization	44,589	30,518	5,890
Current Services	0	0	4,200
Non-Major for FAA			
ACQUISITION INFORMATION MANAGEMENT (0007)	**1,413**	**824**	**3,900**
Development Modernization	579	3	2,853
Current Services	834	821	1,047

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	FY 2000	FY 2001	FY 2002
ADP SUPPORT PERSONNEL (NON-DATA PROCESSING INSTALLATION/NON-DIRECTOR OF IM) (2221)	**165,077**	**150,591**	**125,341**
Development Modernization	44,526	33,097	8,258
Current Services	120,551	117,494	117,083
AIR LOAD MODULE (2104)	**511**	**2,607**	**2,639**
Development Modernization	511	314	383
Current Services	0	2,293	2,256
ARMY FOOD MANAGEMENT INFORMATION SYSTEM (0147)	**6,798**	**3,869**	**2,512**
Development Modernization	3,464	2,316	0
Current Services	3,334	1,553	2,512
ARMY MODEL IMPROVEMENT PROGRAM (0154)	**3,444**	**3,408**	**3,607**
Development Modernization	698	592	628
Current Services	2,746	2,816	2,979
ARMY OPERATIONS CENTER (2191)	**4,943**	**5,629**	**5,968**
Development Modernization	875	867	933
Current Services	4,068	4,762	5,035
ARMY PERSONNEL CENTER INFORMATION MANAGEMENT PLAN (0162)	**5,438**	**4,063**	**5,901**
Development Modernization	1,538	1,612	1,677
Current Services	3,900	2,451	4,224

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AUTOMATED IDENTIFICATION TECHNOLOGY (0199)	**13,797**	**7,489**	**8,311**
Development Modernization	11,453	7,380	8,212
Current Services	2,344	109	99
CIDC IMS (0364)	**2,050**	**1,879**	**3,104**
Current Services	2,050	1,879	3,104
COMBAT TERRAIN INFORMATION SYSTEM (2211)	**29,828**	**25,665**	**8,455**
Development Modernization	29,818	25,665	8,455
Current Services	10	0	0
COMMODITY COMMAND STANDARD SYSTEM (0414)	**31,443**	**36,215**	**31,837**
Development Modernization	4,841	6,240	4,900
Current Services	26,602	29,975	26,937
DISTRIBUTIVE TRAINING TECHNOLOGY (6306)	**32,546**	**87,043**	**13,498**
Current Services	32,546	87,043	13,498
FORCE MANAGEMENT SYSTEM (REPLACES TADDS-R) (0851)	**7,582**	**4,606**	**4,925**
Current Services	7,582	4,606	4,925
HAZARDOUS SUBSTANCE MANAGEMENT SYSTEM (0908)	**7,259**	**61**	**63**
Current Services	7,259	61	63
HOUSING OPERATIONS MANAGEMENT SYSTEM (0934)	**2,679**	**6,171**	**5,391**
Development Modernization	567	442	455
Current Services	2,112	5,729	4,936

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	FY 2000	FY 2001	FY 2002
INTEGRATED COMPUTERIZED DEPLOYMENT SYSTEM (0982)	**1,193**	**1,457**	**1,791**
Development Modernization	255	157	192
Current Services	938	1,300	1,599
INTEGRATED FACILITIES SYSTEM (0986)	**2,710**	**3,247**	**3,025**
Current Services	2,710	3,247	3,025
INTEGRATED METEOROLOGICAL SYSTEM (5074)	**7,796**	**8,708**	**4,432**
Development Modernization	2,351	1,754	1,911
Current Services	5,445	6,954	2,521
KEYSTONE (1063)	**3,490**	**3,936**	**4,281**
Current Services	3,490	3,936	4,281
KNOWLEDGE MANAGEMENT (6430)	**11,845**	**10,832**	**8,410**
Development Modernization	0	2,846	0
Current Services	11,845	7,986	8,410
LOGISTICS DII SUPPORT (6041)	**0**	**14,349**	**10,762**
Current Services	0	14,349	10,762
LOGISTICS SUPPLY SYSTEMS (2199)	**17,536**	**17,155**	**17,799**
Current Services	17,536	17,155	17,799
MATERIEL MANAGEMENT SYSTEMS (1165)	**420**	**408**	**408**
Development Modernization	420	408	408

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MEDICAL COMMUNICATIONS FOR COMBAT CASUALTY CARE (1175)	**5,248**	**7,297**	**5,951**
Development Modernization	5,248	6,803	5,083
Current Services	0	494	868
MEPCOM MANAGEMENT INFORMATION REPORTING SYSTEM (1191)	**17,886**	**19,868**	**15,756**
Development Modernization	585	6,350	2,039
Current Services	17,301	13,518	13,717
MILITARY POLICE MANAGEMENT INFORMATION SYSTEM (1217)	**4,260**	**3,276**	**3,401**
Current Services	4,260	3,276	3,401
MODERN AIDS TO PLANNING PROGRAM (1236)	**3,426**	**3,352**	**3,470**
Current Services	3,426	3,352	3,470
OPERATING & SUPPORT MANAGEMENT INFORMATION SYSTEM (1464)	**4,354**	**2,510**	**2,555**
Current Services	4,354	2,510	2,555
OPTEC FIELD TESTS (2185)	**12,637**	**13,921**	**13,990**
Development Modernization	4,247	4,341	4,437
Current Services	8,390	9,580	9,553
OTHER COMMAND & CONTROL SYSTEMS (2224)	**75,349**	**54,153**	**56,433**
Development Modernization	71	69	64
Current Services	75,278	54,084	56,369

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PERSONNEL ELECTRONIC RECORD MANAGEMENT SYSTEM (1516)	**8,927**	**8,693**	**12,157**
Development Modernization	3,388	2,260	5,335
Current Services	5,539	6,433	6,822
PERSONNEL ENTERPRISE SYSTEM-AUTOMATION (1517)	**19,699**	**17,941**	**24,915**
Development Modernization	7,663	7,391	7,372
Current Services	12,036	10,550	17,543
RESOURCE MANAGEMENT SYSTEMS - HQ DEPT OF ARMY (2194)	**7,920**	**8,344**	**8,534**
Current Services	7,920	8,344	8,534
SCIENTIFIC & ENGINEERING RESEARCH & DEVELOPMENT (2183)	**8,178**	**7,261**	**6,985**
Development Modernization	380	388	388
Current Services	7,798	6,873	6,597
SIMULATION TECHNOLOGY/WARGAMING (3073)	**49,430**	**52,387**	**41,601**
Development Modernization	5,820	10,097	3,414
Current Services	43,610	42,290	38,187
SITE R (3028)	**9,624**	**13,595**	**12,653**
Development Modernization	1,791	1,827	1,900
Current Services	7,833	11,768	10,753
SOUTHCOM INTEL MANAGEMENT SYSTEM (1738)	**4,000**	**5,711**	**5,277**
Current Services	4,000	5,711	5,277

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	FY 2000	FY 2001	FY 2002
STANDARD ARMY AMMUNITION SYSTEM (1763)	**944**	**541**	**0**
Current Services	944	541	0
STANDARD ARMY MAINTENANCE SYSTEM (1769)	**102**	**884**	**0**
Development Modernization	99	0	0
Current Services	3	884	0
STANDARD INSTALLATION-DIVISION PERSONNEL SYSTEM (6160)	**6,526**	**4,588**	**5,852**
Development Modernization	20	0	0
Current Services	6,506	4,588	5,852
STANDARD ARMY AUTOMATION CONTRACTING SYSTEM (1764)	**8,840**	**3,760**	**3,220**
Current Services	8,840	3,760	3,220
STANDARD ARMY RETAIL SUPPLY SYSTEM (1770)	**9,764**	**2,032**	**9,152**
Development Modernization	1,061	0	0
Current Services	8,703	2,032	9,152
STANDARD DEPOT SYSTEM (1780)	**4,851**	**1,911**	**9,715**
Development Modernization	600	1,000	8,800
Current Services	4,251	911	915
STRATEGIC LOGISTICS PROGRAM (1823)	**11,924**	**17,272**	**10,844**
Current Services	11,924	17,272	10,844
TOTAL ARMY PERSONNEL DATA BASE (1923)	**2,401**	**3,248**	**819**
Current Services	2,401	3,248	819

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UNIT LEVEL LOGISTICS SYSTEM (2003)	**119**	**884**	**0**
Current Services	119	884	0
UNITED STATES MILITARY ACADEMY AUTOMATION (2186)	**2,301**	**2,252**	**2,257**
Development Modernization	2,301	2,252	2,257
US ARMY KWAJALEIN ATOLL LOGISTICS INFORMATION MANAGEMENT SYSTEM (2011)	**5,900**	**6,018**	**6,138**
Current Services	5,900	6,018	6,138
WHOLESALE LOGISTICS MODERNIZATION (6298)	**35,450**	**42,718**	**44,900**
Development Modernization	32,480	37,918	22,960
Current Services	2,970	4,800	21,940
WORLDWIDE PORT SYSTEM (2076)	**3,088**	**1,112**	**1,360**
Development Modernization	1,811	1,112	1,360
Current Services	1,277	0	0
All Other for FAA			
All Other for GIG FINANCE	**470**	**35**	**36**
Current Services	470	35	36
All Other for GIG INFORMATION MANAGEMENT	**7,062**	**11,259**	**11,618**
Development Modernization	4,959	7,780	8,329
Current Services	2,103	3,479	3,289
All Other for GIG LOGISTICS	**69,816**	**49,964**	**40,234**
Development Modernization	39,200	33,971	28,411
Current Services	30,616	15,993	11,823

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	FY 2000	FY 2001	FY 2002
All Other for GIG MILITARY PERSONNEL AND READINESS	**20,732**	**15,619**	**18,155**
Development Modernization	1,874	1,897	1,961
Current Services	18,858	13,722	16,194
All Other for GIG OTHER (NOT OTHERWISE SPECIFIED)	**13,988**	**13,398**	**13,468**
Current Services	13,988	13,398	13,468
All Other for GIG POLICY	**398**	**614**	**674**
Current Services	398	614	674
All Other for GIG SCIENCE AND TECHNOLOGY	**491**	**502**	**510**
Development Modernization	60	50	50
Current Services	431	452	460
All Other for GIG SYSTEMS ACQUISITION MANAGEMENT	**28,997**	**25,503**	**21,943**
Development Modernization	7,981	17,248	11,962
Current Services	21,016	8,255	9,981

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	FY 2000	FY 2001	FY 2002
Communications and Computing Infrastructure			
Total, IT Investments for CCI	**1,925,154**	**1,672,645**	**1,851,258**
Development Modernization	409,193	414,467	538,567
Current Services	1,515,961	1,258,178	1,312,691
Total, Major, CCI	**351,004**	**352,589**	**445,803**
Development Modernization	283,429	287,885	363,638
Current Services	67,575	64,704	82,165
Total, Non-Major, CCI	**1,447,001**	**1,244,263**	**1,307,289**
Development Modernization	125,764	126,582	174,929
Current Services	1,321,237	1,117,681	1,132,360
Total, All Other, CCI	**127,149**	**75,793**	**98,166**
Current Services	127,149	75,793	98,166
Major for CCI			
GLOBAL COMBAT SUPPORT SYSTEM - ARMY (5070)	**71,326**	**116,593**	**162,832**
Development Modernization	27,569	100,826	143,943
Current Services	43,757	15,767	18,889
INSTALLATION INFORMATION INFRASTRUCTURE MODERN IZATION PROGRAM (2180)	**186,169**	**130,028**	**163,601**
Development Modernization	185,589	125,879	160,602
Current Services	580	4,149	2,999
PENTAGON RENOVATION (1499)	**17,112**	**31,676**	**33,605**
Development Modernization	17,112	31,676	33,605

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THE ARMY DISTANCE LEARNING PROGRAM (0688)	**76,397**	**74,292**	**85,765**
Development Modernization	53,159	29,504	25,488
Current Services	23,238	44,788	60,277
Non-Major for CCI			
ADP SERVICES FROM DISA (0023)	**20,152**	**44,576**	**42,455**
Current Services	20,152	44,576	42,455
BASE LEVEL COMMUNICATION INFRASTRUCTURE (0254)	**138,649**	**151,343**	**233,212**
Development Modernization	24,551	25,687	108,213
Current Services	114,098	125,656	124,999
COMMUNICATIONS NETWORK AND SYSTEMS MANAGEMENT (2207)	**35,810**	**65,712**	**79,318**
Development Modernization	4	2,167	11,646
Current Services	35,806	63,545	67,672
DCSIM/DOIM STAFF OPERATIONS COSTS (0553)	**257,430**	**246,160**	**259,711**
Current Services	257,430	246,160	259,711
ELECTRONIC COMMERCE (0730)	**16,841**	**2,139**	**757**
Development Modernization	6,941	0	0
Current Services	9,900	2,139	757
LEASED TELECOMMUNICATIONS (NON-SYSTEM SPECIFIC) (5077)	**412,767**	**376,702**	**354,424**
Development Modernization	11,841	19,974	3,185
Current Services	400,926	356,728	351,239

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	FY 2000	FY 2001	FY 2002
LIFECYCLE REPLACEMENT (2215)	**130,025**	**55,254**	**52,554**
Current Services	130,025	55,254	52,554
MILITARY ENTRANCE PROC CMD JOINT COMPUTER CENTER (2181)	**3,806**	**3,175**	**3,821**
Development Modernization	584	626	1,025
Current Services	3,222	2,549	2,796
OFFICE AUTOMATION (NON-SPECIFIC) (2218)	**344,214**	**209,391**	**198,890**
Development Modernization	44,474	36,359	9,033
Current Services	299,740	173,032	189,857
OFFICE AUTOMATION HARDWARE & SOFTWARE UPGRADES (2214)	**36,728**	**41,255**	**36,789**
Development Modernization	29,415	34,281	33,345
Current Services	7,313	6,974	3,444
STAMIS TACTICAL COMPUTERS (2182)	**15,235**	**13,081**	**14,944**
Development Modernization	7,404	7,045	8,482
Current Services	7,831	6,036	6,462
STAND-ALONE MAINFRAME COMPUTERS OPERATING COSTS (2222)	**4,727**	**5,016**	**4,531**
Current Services	4,727	5,016	4,531
SUPER COMPUTER (1836)	**13,169**	**10,968**	**7,282**
Development Modernization	550	425	0
Current Services	12,619	10,543	7,282

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	FY 2000	FY 2001	FY 2002
TACTICAL EQUIPMENT OPERATIONS (2216)	**3,282**	**3,338**	**3,585**
Current Services	3,282	3,338	3,585
USAREUR COMMUNITY AUTOMATION SYSTEM (2102)	**1,295**	**1,225**	**1,258**
Current Services	1,295	1,225	1,258
VIDEO TELECONFERENCING (2045)	**12,871**	**14,928**	**13,758**
Development Modernization	0	18	0
Current Services	12,871	14,910	13,758
All Other for CCI			
All Other for GIG OTHER COMMUNICATION INFRASTRUCTURE ACTIVITIES	**558**	**569**	**580**
Current Services	558	569	580
All Other for GIG SUPER COMPUTING	**126,591**	**75,224**	**97,586**
Current Services	126,591	75,224	97,586

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Related Technical Activities			
Total, IT Investments for RTA	**64,955**	**83,218**	**67,990**
Development Modernization	25,268	36,137	21,375
Current Services	39,687	47,081	46,615
Total, Major, RTA	**44,584**	**53,322**	**38,717**
Development Modernization	25,268	36,137	21,375
Current Services	19,316	17,185	17,342
Total, Non-Major, RTA	**12,205**	**22,742**	**21,961**
Current Services	12,205	22,742	21,961
Total, All Other, RTA	**8,166**	**7,154**	**7,312**
Current Services	8,166	7,154	7,312
Major for RTA			
ARMY ENTERPRISE ARCHITECTURE (2103)	**44,584**	**53,322**	**38,717**
Development Modernization	25,268	36,137	21,375
Current Services	19,316	17,185	17,342
Non-Major for RTA			
ENGINEERING & INSTALLATIONS (6349)	**12,205**	**22,742**	**21,961**
Current Services	12,205	22,742	21,961
All Other for RTA			
All Other for GIG TECHNICAL ACTIVITIES	**8,166**	**7,154**	**7,312**
Current Services	8,166	7,154	7,312

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Information Assurance Activities			
Total, IT Investments for IAA	**22,756**	**44,570**	**24,905**
Development Modernization	2	0	0
Current Services	22,754	44,570	24,905
Total, Major, IAA	**1,902**	**26,307**	**19,905**
Current Services	1,902	26,307	19,905
Total, Non-Major, IAA	**20,854**	**18,263**	**5,000**
Development Modernization	2	0	0
Current Services	20,852	18,263	5,000
Major for IAA			
IA DCE COMMON ACCESS CARD-ISSP (6452)	**1,902**	**26,307**	**19,905**
Current Services	1,902	26,307	19,905
Non-Major for IAA			
IA DCE BIOMETRICS-ISSP (6480)	**20,852**	**18,263**	**5,000**
Current Services	20,852	18,263	5,000
IA OTHER SUPPORT - ISSP (6495)	**1**	**0**	**0**
Development Modernization	1	0	0
IA OTHER SUPPORT - NON ISSP (6496)	**1**	**0**	**0**
Development Modernization	1	0	0

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IT-SUMMARY APPENDIX A - NSS ANNEX

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	FY 2000	FY 2001	FY 2002
IT Resources Summary			
NSS Annex			
Army Exhibit Total, IT Investments	**1,259,584**	**1,601,807**	**1,394,811**
Development Modernization	987,466	1,367,505	1,185,298
Current Services	272,118	234,302	209,513
Army Exhibit Total, Major	**355,904**	**536,647**	**558,251**
Development Modernization	270,644	516,132	535,839
Current Services	85,260	20,515	22,412
Army Exhibit Total, Non-Major	**903,680**	**1,065,160**	**836,560**
Development Modernization	716,822	851,373	649,459
Current Services	186,858	213,787	187,101

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	FY 2000	FY 2001	FY 2002
Functional Area Applications			
Total, IT Investments for FAA	**1,051,497**	**1,361,143**	**1,182,759**
Development Modernization	947,881	1,333,279	1,158,574
Current Services	103,616	27,864	24,185
Total, Major, FAA	**315,789**	**501,173**	**522,315**
Development Modernization	245,403	496,409	517,376
Current Services	70,386	4,764	4,939
Total, Non-Major, FAA	**735,708**	**859,970**	**660,444**
Development Modernization	702,478	836,870	641,198
Current Services	33,230	23,100	19,246
Major for FAA			
ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM (2166)	**96,596**	**118,823**	**106,474**
Development Modernization	96,469	117,515	105,144
Current Services	127	1,308	1,330
COMBAT SERVICE SUPPORT CONTROL SYSTEM (2210)	**33,337**	**43,209**	**36,593**
Development Modernization	31,117	40,583	33,897
Current Services	2,220	2,626	2,696
FORCE XXI BATTLE COMMAND BRIGADE AND BELOW (6185)	**70,916**	**126,170**	**122,723**
Development Modernization	3,686	126,170	122,723
Current Services	67,230	0	0

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	FY 2000	FY 2001	FY 2002
FORWARD AREA AIR DEFENSE COMMAND AND CONTROL SYSTEM (2212)	**18,838**	**50,523**	**30,555**
Development Modernization	18,438	50,111	30,100
Current Services	400	412	455
JOINT PRECISION APPROACH AND LANDING SYSTEM (6189)	**0**	**775**	**785**
Development Modernization	0	775	785
JOINT TACTICAL RADIO SYSTEM (6190)	**42,273**	**89,929**	**182,048**
Development Modernization	42,273	89,929	182,048
MANEUVER CONTROL SYSTEM (2213)	**46,294**	**69,736**	**40,940**
Development Modernization	45,885	69,318	40,482
Current Services	409	418	458
NATIONAL AIRSPACE SYSTEM (6177)	**7,535**	**2,008**	**2,197**
Development Modernization	7,535	2,008	2,197
Non-Major for FAA			
ARMY DATA DISTRIBUTION SYSTEMS (6330)	**50,610**	**66,793**	**38,560**
Development Modernization	50,610	66,793	38,560
ARMY DIGITIZATION (6172)	**307,606**	**282,241**	**228,069**
Development Modernization	287,087	269,475	221,391
Current Services	20,519	12,766	6,678
ARMY TACTICAL COMMAND AND CONTROL SYSTEM ENGINEERING AND INTEGRATION (6173)	**95,634**	**152,430**	**122,834**
Development Modernization	95,634	152,430	122,834

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BATTLEFIELD COMBAT IDENTIFICATION SYSTEM (6174)	**45,525**	**28,132**	**18,675**
Development Modernization	45,525	28,132	18,675
COMBAT SURVIVOR EVADER LOCATOR (6340)	**0**	**0**	**12,720**
Development Modernization	0	0	12,720
COMMAND AND CONTROL VEHICLE (6176)	**44,365**	**0**	**0**
Development Modernization	44,365	0	0
ENVIRONMENTAL COMPLIANCE (3068)	**4,959**	**1,341**	**1,347**
Current Services	4,959	1,341	1,347
SINGLE CHANNEL GROUND AND AIRBORNE RADIO SYSTEM (6196)	**11,622**	**59,378**	**30,322**
Development Modernization	3,870	51,871	20,687
Current Services	7,752	7,507	9,635
WARFIGHTER INFORMATION NETWORK-TERRESTRIAL (6198)	**175,387**	**269,655**	**207,917**
Development Modernization	175,387	268,169	206,331
Current Services	0	1,486	1,586

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	FY 2000	FY 2001	FY 2002
Communications and Computing Infrastructure			
Total, IT Investments for CCI	**79,438**	**82,139**	**80,056**
Development Modernization	25,241	19,723	18,463
Current Services	54,197	62,416	61,593
Total, Major, CCI	**40,115**	**35,474**	**35,936**
Development Modernization	25,241	19,723	18,463
Current Services	14,874	15,751	17,473
Total, Non-Major, CCI	**39,323**	**46,665**	**44,120**
Current Services	39,323	46,665	44,120
Major for CCI			
DEFENSE MESSAGE SYSTEM (0615)	**40,115**	**35,474**	**35,936**
Development Modernization	25,241	19,723	18,463
Current Services	14,874	15,751	17,473
Non-Major for CCI			
LONG HAUL (1095)	**39,323**	**46,665**	**44,120**
Current Services	39,323	46,665	44,120

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Information Assurance Activities			
Total, IT Investments for IAA	**128,649**	**158,525**	**131,996**
Development Modernization	14,344	14,503	8,261
Current Services	114,305	144,022	123,735
Total, Non-Major, IAA	**128,649**	**158,525**	**131,996**
Development Modernization	14,344	14,503	8,261
Current Services	114,305	144,022	123,735
Non-Major for IAA			
IA DCE-ISSP (6407)	**11,001**	**21,393**	**6,760**
Current Services	11,001	21,393	6,760
IA DEB-ISSP (6404)	**11,211**	**711**	**4,131**
Current Services	11,211	711	4,131
IA DIO-ISSP (6419)	**1,900**	**2,640**	**23,994**
Current Services	1,900	2,640	23,994
IA DNI-ISSP (6400)	**17,410**	**12,000**	**3,050**
Current Services	17,410	12,000	3,050
IA DNI-ISSP-CRYPTOGRAPHIC MODERNIZATION (5071)	**13,134**	**12,938**	**14,589**
Current Services	13,134	12,938	14,589
IA FOR THE TACTICAL ENVIRONMENT-ISSP (6410)	**16,243**	**22,094**	**8,184**
Current Services	16,243	22,094	8,184
IA FOR THE TACTICAL ENVIRONMENT-NON ISSP (6411)	**724**	**799**	**1,314**
Current Services	724	799	1,314

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	FY 2000	FY 2001	FY 2002
IA OTHER MGMT & OPERATIONS-ISSP (6413)	**3,120**	**3,457**	**3,461**
Current Services	3,120	3,457	3,461
IA SECURITY MANAGEMENT-ISSP (6422)	**34,765**	**59,263**	**46,427**
Current Services	34,765	59,263	46,427
IA SUPPORTING INFRASTRUCTURES-ISSP (6416)	**426**	**2,500**	**900**
Current Services	426	2,500	900
IA SYSTEM SECURITY METHODOLOGY-ISSP (6425)	**16,344**	**16,503**	**9,761**
Development Modernization	14,344	14,503	8,261
Current Services	2,000	2,000	1,500
IA TRAINING-ISSP (6401)	**2,371**	**4,227**	**2,900**
Current Services	2,371	4,227	2,900
IA-DCE COMMON ACCESS CARD-NON ISSP (6456)	**0**	**0**	**6,525**
Current Services	0	0	6,525

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Description Information:

Initiative Name and Acronym: The Army Distance Learning Program (TADLP)
Initiative Number: 0688 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation): DA01315

Executive Agent for this Major Initiative: Army
Program 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): 5 Dec 2000
Project is in Milestone (MS) C (previous MS III) Block 1 & 2 Full-Rate Production Decision Phase, Approval Dated: 5 Dec 2000, MS B (previous MSI/II), Block 3 System Development & Demonstration Phase as of current review.

Project Status: New ☐ Ongoing ☒

Information Technology Project or National Security System: IT

Is this project a financial management or Mixed Financial System? No.

Percentage of System supporting Information Assurance Activities: 1.1%

Project Date for Completion: August 2008
Mission Critical Status: Yes

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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 FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
Total Dev Mod							
Full Acquisition							
OMA	0.0	14.0	0.0	0.0			
OPA	31.8	25.2	24.7	23.3			
RDTE	0.0	0.0	4.9	2.2			
Total Dev Mod	31.8	39.2	29.6	25.5			
Current Services/Maintenance							
Mil Con, Army	0.0	14.0	0.0	0.0			
OMA	32.1	23.2	44.8	60.3			
Total Current Services	32.1	37.2	44.8	60.3			
Total Resources by FY	**63.9**	**76.4**	**74.4**	**85.8**			

Total Resources by FY include PEO STAMIS and TRADOC managed TADLP resources from FY1997-FY2007 in the FY02 President's Budget and the out year costs to support TADLP efforts through FY 2015. Although the resources depicted in all charts

include those managed by PEO STAMIS and TRADOC, the following narrative only addresses the PEO STAMIS managed TADLP effort.

Part II. Justification:

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. The modernized training delivery system will link Army service schools with the Army in the field through common-user telecommunications' networks which will deliver standardized individual, collective, and self development training to soldiers, civilian employees, and units using multimedia approach to training delivery. It will allow trainers of the future to reach more remote training locations, such as installation classrooms, offices, and students' homes. It will aid the Army to properly train all components to a single Army standard. TADLP supports readiness by acquiring a modernized training delivery system that leverages technology which will provide anywhere, anytime training to each service member, both active and reserve. The Army is leveraging industry and academia-proven Distance Learning (DL) techniques to improve the quality of Army training and reduce training costs. Maximum use is being made of Commercial-off-the Shelf (COTS) Information Technologies (IT) to support training-related and administrative processes.

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 anywhere, 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). The system will include Digital Training Facilities (DTFs) containing student workstations, video equipment, and network access. When fully deployed, TADLP will link over 381 DTFs at 132 locations and will support 335,000 students annually. Mobile distance learning components will connect with the communications infrastructure to receive and deliver DL training to support student surge requirements at Army installations and to provide training for

students in areas of low population density or those deployed to remote locations. Future technologies such as Desk Top VTT, deployable classrooms, and 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.

- Reduced Transients, Trainees, Holdovers, and Students (TTHS) accounts since soldiers will receive much of their training at their home stations, or in close proximity to their homes.

- Improved service member morale by allowing members to obtain required training without leaving their home station.

- 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 incremental block approach in accordance with Clinger-Cohen Act of 1996.

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 (MS) 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 (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 incremental block approach for implementing TADLP was conceptualized and outlined ensuring the program conformed to the Clinger-Cohen Act. 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 April 1999,TADLP submitted the Economic Analysis (EA-I) to the U..S. Army Cost and Economic Analysis Center (USACEAC) for review. A Sufficiency Review (SR) was completed by USACEA and a revised EA-I was provided by TADLP in May 1999. In 3rd Qtr FY 2000 design and testing of TADLP Block 2 and an updated full program EA

demonstrating ROI of 5.1 was completed. Army OIPT conducted a successful MS III Review of TADLP Blocks 1 and 2 in September 2000 and the Block 1&2 Full-Rate Production Acquisition Decision Memorandum (ADM) was approved and signed on 5 December 2000. As currently funded and supported by the Army Cost Position (ACP), TADLP full implementation of Blocks 1,2, and 3 of this effort will be completed in 2008 contingent on favorable Milestone C review of Block 3 anticipated in 3rd Qtr, FY 2002.

Resources shown for TADLP include the PM Distance Learning Program as well as TRADOC managed OPA resources for Other Training Modernization (SSN BE4172) efforts.

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 the acquisition of TADLP Block 1 and 2 is the General Services Administration (GSA), Region 10, Bremerton, Washington.

The Army OIPT conducted a successful MS III Review of TADLP Blocks 1 and 2 in September 2000 and the Block 1&2 Full-Rate Production Acquisition Decision Memorandum (ADM) was approved and signed on 5 December 2000. Block 3, Learning Management System, Milestone II was also approved and exit criteria defined. Exit criteria for a successful Milestone C for Block 3 will include a favorable Economic analysis and approved Army Cost Position, a favorable PA&E Affordability Assessment and a favorable Army Test and Evaluation Command (ATEC) Operational Evaluation.

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 DTF classroom manager, communications, VTT,hardware and software, the Training Access Center (TAC)/Enterprise System Management (ESM), maintenance, program management, facility modernization, and design and testing.

For TADLP Blocks 1 and 2, 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, equipment and fielding services to support establishment of TADLP Block 1 and 2 DTFs. Commercial off the Shelf (COTS) Block 1 DTF components 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 and 2 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 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. ISEC is also assisting PM TADLP with management of Block 2 tasks performed by ACS and/or other commercial vendors.

PM TADLP plans to procure, through CECOM Acquisition Center-Washington (CAC-W), contract services for the development and fielding of a Learning Management System for Block 3,. The solicitation puts forth Block 3 requirements in the form of a Request for Quoter (RFQ). CAC-W will evaluate the statement of work requirements for determination of those vendors demonstrating responsible past performance and experience to satisfy PM TADLP requirements for Block 3 development and deployment. The intent of this acquisition is to provide TADLP with an LMS that is integrated with Block 1 and Block 2 and other requisite Army training systems. The end product of this acquisition is operational hardware and software to provide a TADLP Block 3 capability that meets the high level operational requirements specified in the ORD, MNS, and COICs. The acquisition will issue multiple task orders for Block 3 to a single Contractor. PM TADLP anticipates contract award for the Block 3 effort 4th Quarter FY 2001.

D. Architecture and Infrastructure Standards:

1. 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).

2. Infrastructure Strategy: All direct infrastructure is included in the PM managed acquisition. Selected communications capabilities will be achieved through a combination of TADLP funded leased communications assets and existing DoD/Army owned circuits.

3. All TADLP hardware requirements are included in the funding.

4. 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.

5. 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.

6. TADLP Blocks 1 and 2 consist entirely of Commercial off the Shelf (COTS) components. TADLP Block 3 contractor shall perform all non-recurring engineering required to interface and integrate the LMS with existing system components and to develop a system architecture. Engineering tasks include architectural designs, trade studies, production of engineering data, data modeling, design reviews and compliance with MANPRINT, Safety, and Security requirements. TADLP Block 3 must be compliant to the Electronic assurance Level (EAL) –3 to handle Privacy Act and Sensitive But Unclassified (SBU) data . TADLP Block 3 Contractor shall also provide descriptive documentation of the proposed Security Architecture for Block 3.

E. Program Highlights:

TADLP has achieved a number of significant milestones during the past year.

To date, PM TADLP has acquired and deployed more than 168 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. During FY 2000 and FY 2001 PM TADLP has upgraded 94 Block 1 DTF worldwide incorporating fully operational TADLP Block 2 capabilities. Presently, over 40 additional DTF site surveys are scheduled in FY 2001 that will facilitate continuation of the acquisition and implementation of ground up DTFs fully incorporating Block 1 & Block 2 functional capabilities. Students trained using DTFs exceeded 67,500.

During FY00 and FY01 PM TADLP successfully completed significant acquisition process milestones and documentation.

- Completed Block 2 DoD Information Technology Security Certification & Accreditation Process (DITSCAP)

- Completed Block 2 Limited Use Test, Army Test & Evaluation Command (ATEC)
- Completed Full TADLP Economic Analysis (EA) documentation (PM TADLP), Army Cost Review Board (USACEAC) acceptance, and approval of Army Cost Position (ASA FM&C)
- Obtained Army Chief Information Officer (CIO) Section 8121 Congressional Certification.
- Completed TADLP Block 1 & Block 2 MS III, and Block 3 MS II Decision Review (MDR) and approval.
- Completed OSD CIO Assessment and Section 8121 Certification to Congress of Clinger-Cohen Compliance
- Obtained Block 2 MS III, and Block 3 MS II Acquisition Decision Memorandum signed by Army Milestone Decision Authority (MDA) including Exit Criteria for Block 3 EMD
- Obtained approved Acquisition Program Baseline (APB)
- Completed ATEC TADLP Courseware Continuous Evaluation and Testing
- Issued draft Block 3 Request for Quote (RFQ) to industry.
- Fielded first remote Regional Training Access Center (RTAC), Ft. Leavenworth, KA.
- Fielded second remote RTAC, Ft. Lewis, WA.
- Completed successful ATEC Continuous Evaluation of TADLP courseware.
- Obtained approved Modified Integrated Program Summary (MIPS).

In FY 2001 PM TADLP is continuing the acquisition and implementation of DTFs incorporating Block 1 and Block 2 capabilities in accordance with MS III approval. PM TADLP will also begin design and development of the Block 3 capability which will provide automated student administration, management and scheduling, plus all functionality for Blocks 1 and 2. Block 3 will implement interfaces with major Army Training related systems and databases.

In FY2002-2003 PM TADLP will continue to acquire and implement DTFs incorporating Block 1 and 2 capabilities and will implement Block 3 training management enhancements.

F. Financial Basis for Selecting the Project:

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Army's Cost and Economic Analysis Center (CEAC) validated the initial TADLP EA for MSI/II and this data was used in previous 300B submission. TADLP Economic Analysis (EA) and Army Cost Position (ACP) presented to the Army OIPT in 4th Quarter FY2000 established the formal Acquisition Program Baseline (APB) that reflects the detailed MS C (III) data. Total resources are:

	Dollars in Millions						
	Sunk Costs	**FY 00**	**FY 01**	**FY 02**			
Total Resources by FY	63.9	76.4	74.4	85.8			
Rebaseline Total Resources by FY							

Total Resources by FY line include PEO STAMIS and TRADOC managed TADLP resources from FY1997-FY2007 in the FY02 President's Budget and the outyear costs to support TADLP efforts through FY 2015. This chart does not reflect the formal APB but is inclusive of both PEO STAMIS and TRADOC managed resources.

1. Cost/benefit analysis: An Economic Analysis Development Plan and a Cost Analysis Requirements Description have been approved by the Army. The PMO delivered EA-II for TADLP IT OIPT review on 19 September 2000 for MS III for Block 2. TADLP EA-II presented background, assumptions, constraints, objectives, alternatives, cost elements, and potential benefits of all feasible alternatives for TADLP Blocks 1 and 2. Each Block was treated as a stand-alone package that is not dependent upon subsequent blocks to meet its operation objectives. As each Block is implemented, the DL system evolves into a more efficient and effectively managed enterprise providing DL system management benefit and added functionality through operating synergy.

2. Analysis of alternative options: There are three materiel alternatives presented in the EA-II analysis: Alternative 1 is the Status Quo, Alternative 2A is the cost of Blocks 1 through 3 with a Block 3 COTS solution; and, Alternative 2B is the cost of Blocks 1 through 3 with a Block 3 GOTS solution. The Army has reviewed and approved the EA. The estimate for the selected alternative,

adjusted for affordability, has been approved as the Army Cost Position forming the cost baseline for the program. The EA will be updated prior to each Block MS III review.

3. Underlying assumptions: TADLP will operate under the following assumptions:

   a) Total life-cycle costs were calculated from FY 1997-FY 2015. These 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. Assessment:

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 established a formal TADLP APB upon validation and acceptance of the EA and approval of the Army Cost Position for the Army OIPT MS C review fro TADLP Blocks 1 and 2 completed in September 2000.

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	Cum total FY 1999 and prior	FY 2000	FY 2001	FY 2002			
B. Previous Balance:							
Cost Goals ($M)	63.6	41.8	72.1	68.6			
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)	63.9	35.7	45.7	51.5			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	63.9	76.4	74.4	85.8			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	0	40.7	28.7	34.3			
Schedule Goals (months)							

TADLP Cost Baseline was established based on the results of the EA prepared for and reviewed by the Army OIPT. This baseline reflects changes in TADLP size and scope resulting from establishment of the ACP which retained Blocks 1-3 as threshold requirements and reflected Blocks 4-6 as objective requirements and includes TRADOC managed initiatives.

F. Corrective Actions:

Schedule Goals: Milestones

Baseline (Milestone) Schedule	Last President's Budget (Month Year)		Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Army MAISRC IPR	2nd Qtr FY98	2nd Qtr FY98	
Army Milestone III (Block 1)	4th Qtr FY00	1st Qtr FY01	
Army Milestone I/II	2nd Qtr FY99	2nd Qtr FY99	
Army Milestone III (Block 2)	4th Qtr FY00	1st Qtr FY01	

A successful Milestone C for Blocks 1 and 2 and a Milestone B for Block 3 was approved 5 December 2000.

Variance from schedule from FY2002 President's Budget: None.

Corrective Actions: None required.
Performance Goals:

Results – based (I.e., mission –oriented). TADLP Key Parameters (KPP) objectives and thresholds are documented in TRADOC ORD for a Modernized Training Suystem (Revised) dated 27 August 1999 and in the APB. Management of these requirements is realized through the System Subsystem Specification (SSS) and the System Requirements Specification (SRS). Progress against these performance goals is tracked. Examples of performance measures follow:

- Number of DTFs fielded through Second Quarter FY01 - 168igital Training Facilities (DTF's)
- Number of students trained. Through Second Quarter FY01, TADLP DTFs have sustained the training of over 67,500 students averaging approximately 3,000 students per month

Performace-based acquisition management has been integrated into program management through the use of earned value management and software metrics management techniques. All work is planned, budgeted, and scheduled in "time-phased" increments constituting a cost, schedule, and performance measurement baseline. The approach encourages the prime contractor to employ internal cost and schedule management control system and to permit the PMO to rely ontimely data produced by those systems for determining product-oriented contract status.

TADLP Information Assurance. On 2 March 1999, PEO STAMIS, as the Army's Designated Approving Authority (DAA), approved security accreditation for Block 1 in accordance with AR 380-19 and the Defense Information Technology Security Certification and Accreditation Process (DITSCAP). On 3 May 1999, TADLP Block 2 DITSCAP was initiated. Interim Approval to Operate (IATO) was granted on 12 August 1999. TADLP security strategy is traceable through requirements, design, implementation, and operating procedure documents. This strategy is documented in TADLP System Security Authorization Agreement (SSAA).

The SSAA, System Security Policy Statement, Automated Information System Security Plan, Initial Risk Assessment Survey (IRAS), Trusted Facility Manual and Security Users Features Guide address the specific security features of TADLP and establish the integration of all the security disciplines and how these features will be implemented, tested and certified. An IRAS was performed covering Computer, Administrative, Physical, Communications and Network Security to identify risks and support the acquisition and implementation of appropriate security countermeasures. Countermeasures identified were necessary to support an EAL-3 Trusted Computing Base operating in a System High mode of operation. The DAA, or his designated representative, will continue to validate all security requirements and certification and accreditation plans, approve the system security authorization agreement, and provide accreditation, as necessary.

On 11 May 2000, TADLP Block 2 successfully completed Security Certification Testing necessary for Block 2 Security Accreditation. TADLP successfully completed Development Test and Evaluation (DT&E) on 2 June 2000, and entered Operational Test and Evaluation (OT&E) on 10 June 2000. The PEO STAMIS accredited the TADLP Block 2 on 18 Jul 2000.

(1) Capabilities:

TADLP is using an incremental block acquisition strategy with six blocks currently planned. TADLP consists of COTS hardware and office automation (software applications integrated into an open system, personal computer-based architecture).

- Block 1, Digital Training Facilities. This Block provides operational DTFs equipped with the infrastructure required to deliver modernized courseware. This Block is deployed and completed with distance learning courses, delivered primarily by CD-ROM and Video Tele-Training (VTT) with a two-way audio/video capability.

- Block 2, Common Core Services. Block 2 will network DTFs, with the existing communications infrastructures. It includes integrating and implementing all interfaces needed to satisfy identified training requirements. It provides a student learning space consisting of electronic messaging and DTF scheduling, collaboration tools; enterprise management with automated scheduling; and system administration. With this Block, students have access to Web-based courseware.

- Block 3, Learning Management System. Block 3 will provide the hardware and software for automated student administration, management, and scheduling, plus all functionality for Blocks 1 and 2. Block 3 will implement interfaces with major Army training related systems and applications (e.g., training requirements databases, training automation systems, personnel systems, automated information retrieval systems, major Army training systems, and national communications networks, and additional Active Army installations and USAR sites).

- Block 4, Network Migration. During this block separate video and data networks will be combined into a single network providing both services. Functions to be provided under Block 4 are desk-top VTC using H.323 services for live and on-demand requirements in conjunction with all functionality for Blocks 1-3.

- Block 5, Deployable DTFs. Block 5 will provide deployable DTF capabilities, plus those capabilities included for Blocks 1-4.

- Block 6, Simulation. Block 6 will provide student access to constructive and virtual simulations for training plus Blocks 1-5.

The program is currently structured and funded to provide Blocks 1 through 3 as core threshold requirements. Blocks 4 through 6 are objective requirements that will be addressed in future capabilities and funding analyses. Outsourcing the Army's mission to train soldiers was considered, however, it was determined that this is an inherently governmental function for the following reasons. Under Title 10, USC, the services are responsible for training forces for use by the National Command Authority (NCA). DL DTF design, development, management and operations have been outsourced and are under the direction of the PM TADLP. DL courseware development has also been outsourced and is under TRADOC direction.

(2) System Performance:

		Development Baseline Objective/Threshold
	TADLP Block 1	
(U)	Digital Training Facility Accessibility (Hrs/day)(note 1)	14.0/8.5
(U)	System HW/SW Availability	
(U)	Synchronous Training – VTT	24hrs/48hrs
(U)	Asynchronous Training*	24hrs/48hrs
(U)	Deliver and Receive Courseware*	Yes
(U)	System Response Delay Time (Initialization In Asynchronous mode)	2 `min/3 min
(U)	System Response Delay Time (After Initialization In Asynchronous mode)	3 sec/10 min
(U)	Remote SME / Instructor Response Time	45 min/60 min
(U)	Student Management	
(U)	Enrollment	Automated/Manual
(U)	Scheduling	Automated/Manual
	TADLP Block 2	
(U)	Digital Training Facility Accessibility (Hrs/day)(note 1)	14.0/8.5
(U)	System HW/SW Availability	
(U)	Synchronous Training – VTT	24hrs/48hrs
(U)	Asynchronous Training*	24hrs/48hrs

(U)	Deliver and Receive Courseware*	Yes
(U)	System Response Delay Time (Initialization In Asynchronous mode)	2 min/3 min
(U)	System Response Delay Time (After Initialization In Asynchronous mode)	15 sec/10 min
(U)	Remote SME / Instructor Response Time	45 min/60 min
(U)	Student Management	
(U)	Enrollment	Automated/Manual
(U)	Scheduling – VTT & Digital Training Facility Usage	Automated/Manual
(U)	Electronic Records Management Interface	Yes
(U)	Networking & Communications Management	Yes
(U)	Remote Access*	Yes
(U)	Security	Yes
(U)	Interoperability – JTA/JTA-Army Standards*	Yes

	TADLP Block 3	
(U)	Manage DL Catalogue and Training Resources	Electronic/Automated
(U)	Manage DL Training Deliver System	Electronic
(U)	Maintain DL Student Reservations	Electronic/Automated
(U)	Maintain DL Student Schedule	Electronic/Automated
(U)	Manage Student Progress Through DL Instructional Unit	Electronic/Automated
(U)	Conduct Distance Learning Support Activities	Electronic/Automated

* Denotes key performance parameter as identified in the ORD.

Notes:
Hours per day/7 days per week

Accomplishments to date.

(1) To date, PM TADLP has acquired and deployed more than168 DTFs worldwide 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. During FY 2000 and FY 2001 PM TADLP has upgraded 94 Block 1 DTF worldwide incorporating fully operational TADLP Block2 capabilities. Presently, over 40 additional DTF site surveys are scheduled in FY 2001 that will facilitate continuation of the acquisition and implementation of ground up DTFs fully incorporating Block 1 & Block 2 functional capabilities. Students trained using DTFs exceeded 67,500. TADLP is the first ACAT I program to obtain Section 8121 Congressional Certification and Registration. TADLP Office of Secretary of Defense (OSD) Certification was awarded on 7 November 2000.

(2) In FY 2000 and FY 2001 PM TADLP successfully completed significant acquisition process milestones and documentation that lead to the Milestone Decision Review (MDR), MS II/III on 28 September 2000:

- Completed Block 2 DoD Information Technology Security Certification & Accreditation Process (DITSCAP)
- Completed Block 2 Limited Use Test, Army Test & Evaluation Command (ATEC)
- Completed Full TADLP Economic Analysis (EA) documentation (PM TADLP), Army Cost Review Board (USACEAC) acceptance, and approval of Army Cost Position (ASA FM&C)
- Obtained Army Chief Information Officer (CIO) Section 8121 Congressional Certification and Registration.
- Completed TADLP Block 1 & Block 2 MS III, and Block 3 MS II Decision Review (MDR) and approval.

- Completed OSD CIO Assessment and Section 8121 Certification and Registration to Congress of Clinger-Cohen Compliance
- Obtained Block 2 MS III, and Block 3 MS II Acquisition Decision Memorandum signed by Army Milestone Decision Authority (MDA) including Exit Criteria for Block 3 EMD
- Obtained approved Acquisition Program Baseline (APB)
- Completed ATEC TADLP Courseware Continuous Evaluation and Testing
- Issued draft Block 3 Request for Quote (RFQ) to industry.
- Fielded first remote Regional Training Access Center (RTAC), Ft. Leavenworth, KA.
- Fielded second remote RTAC, Ft. Lewis, WA.
- Completed successful ATEC Continuous Evaluation of TADLP courseware.
- Obtained approved Modified Integrated Program Summary (MIPS).

(3). In FY 2001 PM TADLP is continuing the acquisition and implementation of DTFs incorporating Block 1 and Block 2 capabilities. PM TADLP will complete design and development of the Block 3 capability, which will provide automated student administration, management and scheduling, plus all functionality for Blocks 1 and 2. Block 3 will implement interfaces with major Army Training related systems and databases.

(4) In FY2002-2003 PM TADLP will continue to acquire and implement DTFs incorporating Block 1 and 2 capabilities and will implement Block 3 training management enhancements. Blocks 1-3 are defined as threshold requirements and Blocks 4-6 are defined as objective requirements.

Variance from performance from FY2001 President's Budget: None.

Corrective actions: No corrective actions are anticipated to be required. There are currently no known major barriers or risks to meeting schedule goals.

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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.

Executive Agent for this Major Initiative: Army
Program 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 ☐ Ongoing ☒

Information Technology Project or National Security System: IT

Is this project a financial management or Mixed Financial system? No

Percentage of System supporting Information Assurance Activities:

Projected Date for Completion: N/A
Mission Critical Status: N/A

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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						
	Cumulative Total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
Total Dev Mod	0.0	0.0	0.0	0.0			
Full Acquisition							
OPA	5.4	2.7	5.3	2.8			
RDTE	20.2	22.5	30.8	18.6			
Total Dev Mod	25.6	25.2	36.1	21.4			
Current Services/Maintenance							
OMA	41.2	19.3	17.2	17.3			
Total Current Service	41.2	19.3	17.2	17.3			
Total Resources by FY	**66.8**	**44.5**	**53.3**	**38.7**			

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

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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 (installations from which forces are deployed and supported) 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 memoranda, the AEA Master Plan, AEA Guidance Document, AR 25-1 Army Information Management, and through the Enterprise General Officer Steering Committee oversight and approval. The Enterprise Council of Colonels, the Brigadier General level Enterprise General Officers Steering Committee (EGOSC), and the Major/Lieutenant General level Enterprise Board of Directors (EBoD) 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 Unit Set Fielding Modernization Schedule, Army Modernization Plan, The Army Plan/POM Guidance, the Army Digitization Master Schedule, Army Transformation, and the AEA Master Plan

Primary contractors are: MITRE, DESE Research, ACS Defense, Teledyne Brown Engineering, CUBIC International, Quantum Research International, and EER Systems, in Georgia, Kansas, Maryland, New Jersey, and Virginia

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 commercial off-the-shelf hardware/software (COTS HW/SW)

The Research, Development, Test and Evaluation (RDT&E) appropriation provides funds for the maintenance, and update 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 Memorial Institute, Ratheon, United Defense, ARINC Inc, SAIC, Telos Corporation, and C3I Systems Integration Group, Inc in Alabama, New Jersey, and Virginia.

D. Architecture and Infrastructure Standards:

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

E. Program Highlights:

- The Real-Time Common Operating Environment (RTCOE) development under the Weapons System Technical Architecture has the potential to achieve significant cost-avoidance on software maintenance for the Multiple Launch Rocket System and other Army weapon systems.
- Developed/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 – Army Information Management and to provide the field with detailed procedures regarding development, management, and use of AEA models and products.
- Architecture requirements were embedded in February 2000 release of new version of AR 25-1, Army Information Management
- 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 operational architecture (OA) and systems architecture (SA) – the Joint Contingency Force Army Warfighting Experiment is the prototype.
- AEADPs drafted for III Corps – the First Digitized Corps (FDC), 3rd Armored Calvary Regiment (3 ACR), – the First Digitized Armored Cavalry Regiment (1DACR), and 82nd Airborne Div (82nd AB) – the First Digitized Light Division (FDLD). AEADPs designed to save costs and time in developing Army Modernization architectures.
- Developed SA-Detailed for 1st Digitized Force Systems Architecture (1DFSA) for FDD.
- First use of AEA-generated fielding numbers for the Enhanced Position Location Reporting Systems (EPLRS) and Single Channel Ground Airborne Radio Systems (SINCGARS) radios to be used in the FDD. (EPLRS and SINGCARS are key players in the digitization of Army forces, and its balance with SINCGARS.) The use of AEA engineering methodology enabled informed and effective system reallocation when resource constraints dictated a cut in the number of EPLRS and SINGCARS.
- Expanded I3A across Army Installations IAW Installation Information Infrastructure (I3) Master Plan (provides blueprint for digitizing Army post, camps and stations)
- Developed architectures for Initial and Interim Brigade Combat Teams.

- 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	**FY00**	**FY01**	**FY02**			
APB Total Resources by FY							
Rebaseline Total Resources by FY	66.8	44.5	53.3	38.7			

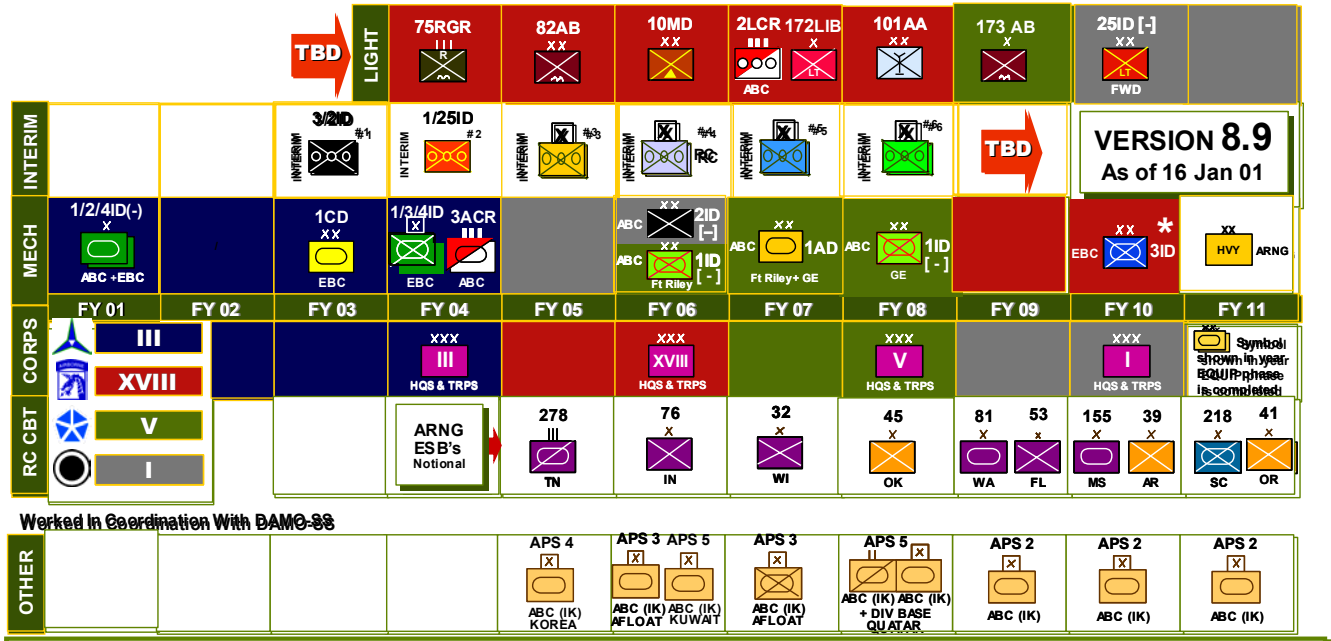
- This program does not follow the traditional acquisition process. Rebaseline reflects the changes to the funding line between BES and the President's Budget.

Part III. Assessment:

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 EGOSC, is to develop architectures IAW the Unit Set Fielding Modernization Schedule illustrated

Unit Set Fielding Modernization Schedule



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This version is directly aligned with the recently approved(7 Dec 00) Army Order of Precedence (AOP) memo which re-orders distribution priorities. This chart reflects a macro level view; unit symbols appearing more than once reflect split-based units. Interim Axis(TCP) is being integrated into the USFMS. Both Initial Bdes will become Interim Bdes in FY 03 & 04 respectively based on completion of IAV fielding. * 3 ID modernization is tentative pending FY 03 decision. Symbol shown in year Equip phase is completed.

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	Cum total FY 1999 and prior	FY 2000	FY 2001	FY 2002			
B. Previous Balance: *							
Cost Goals ($M)	60.8	39.0	38.4	38.7			
Schedule Goals (milestones)							
C. Baseline: *							
Cost Goals ($M)	62.4	39.0	38.5	38.8			
Schedule Goals (months)							
D. Current Estimate:*							
Cost Goals ($M)	66.8	44.5	53.3	38.7			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	4.4	5.5	14.8	-.1			
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 Budget (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 1DFSA v2.0 for extension into installation and weapons domains
- Developed v1.0 for 2DFSA (1CD) and v0.8 for selected III Corps units and 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 led Joint Task Force (XVIII Airborne Corps) in the '00 time frame based on current and emerging Joint Doctrine. This effort provided 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:

- Developed/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. Completed Brigade/Division Node level OAs.
- Continued implementing DII COE strategy across Army domains
- Began linking 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 Accomplishments

- Completed AEA Master Plan Strategy and Program Plan version 2.0 to support AEA FY02-07 POM submission – identifying requirements for architectures that needed to be developed and maintained in the FY02-07 timeframe.
- Completed JTA-A version 6.0 to support the development of the FDC (III Corps) architectures.
- Began development of synchronized OAs and SAs IAW Army priorities under the AEADP effort – AEADP methodology approved by the EGOSC to support Army modernization.
- Continued expansion of I3A across Army OCONUS installations and CONUS NGB/RC "virtual installations".

- Continued M&S efforts to assess adequacy of Army Systems Architecture (ASA) to meet battlefield/sustaining base operational requirements.
- Developed architectures to support Initial and Interim Brigade Combat Teams (BCT) IAW Chief of Staff of the Army Transformation guidance
- Started development of 3rd Armored Calvary Regiment Systems Architecture, Heavy Corps Operational Architecture, RC Light Division Operational Architecture, and RC Heavy Division Operational Architecture.
- Supported development of DoD Global Information Grid (GIG) Architecture
- Supported update to DoD C4ISR Architecture Framework
- Developed Operational views of IBCT Architecture (versions .25, .5, .75, and IER matrix for 1.0)
- Developed Systems views of architectures for both the first and third IBCTs
- Developed Operational views of architectures for Army Forces (ARFOR) HQ, Corps as an ARFOR and Division as an ARFOR
- Completed Operational views (versions 1.5 and 2.0) of Joint Contingency Force architecture
- Completed Operational view of Force XXI Division Support Battalion architecture
- Completed Systems view (version 1.5) of First Digitized ACR architecture
- Developed Systems views (version 0.5) of various components of the First Digitized Corps architectures
- Provided modeling and simulation support in analyzing communications and automation systems in the IBCT.
- Provided total architecture support (operational, systems, and M&S) to numerous IBCT-related Rock Drills

FY 01 (Accomplishments)

- Updated the AEA Program Plan to support AEA FY03-07 Mini-POM submission
- Supported development of the Joint Operational Architecture
- Supported the evolution of DoD GIG Architecture
- Completed 50 percent of I3A CONUS sites to be transitioned to Geospatial Information System (GIS)

- Developed of Interim BCT, 3rd ACR, Heavy Division (24th ID), Light Division (82nd Airborne) , III Corps, Ranger Regiment, SOF Regiment baseline architectures. Began architecture development for the Objective Force
- Continued support to fielding of IBCT, ARFOR HQ, and First Digitized Corps and other key components of Army Modernization/Transformation
- Initiated support to fielding of Interim Division
- Updated AEA Guidance Document to reflect changes in updated DoD Architecture Framework
- Continued evolution and enhancement of message standards and protocol test tools which support certification of Army and Joint interoperability for over 100 Army and US Marine Corps system
- Developed consolidated repository system for operational and systems architecture products and data
- Initiated development of the Army Architecture Portal
- Conducted technology assessments on impact of use of new Internet Protocal Version 6 on Army systems
- Continued development/update of message format standards, protocols and automated test tools-the only automated test tools for this purpose in DoD

FY02-03 Goals

- Continue operational/systems architecture development and maintenance of Army Chief-of-Staff directed Army Transformation units – IBCT, ARFOR HQ, Interim Division, and Reserve Component Heavy/Light Divisions..
- Continue development and maintenance of Army Modernization architectures IAW Army Modernization Schedule i.e., Refield of 1DFSA (4ID) units, FDC (III Corps), 1st Digitized ACR (3ACR), and 1st Digitized Light Division (82AB).
- Develop and evolve Army Modernization architectures to support Unit Set Fielding – a key element synchronizing the changes in units undergoing Transformation to minimize the impact on their operational readiness
- Accelerate use of "Excursion" architectures which leverage completed architectures to produce architectures for similar units in less time and at less cost

- Continue enhancement of I3A – I3A provides standard IT template for information infrastructure, information assurance, business area requirements, and strategic reach-back requirements for OCONUS sustaining base.
- Publish update and maintenance versions 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 procurement of architecture tools in support of AEA development, management, and use.
- Continue support to Real-Time Common Operating Environment to help reduce weapon system software maintenance costs
- Support development of software architectures that synchronize and coordinate software releases, reducing interoperability problems
- Continue support to DoD Global Information Grid (GIG)
- Encourage and support integration of architecture methodologies into Army and DoD requirements generation systems
- Support evolution of DoD C4ISR Architecture Framework and update AEA Guidance Document in synch with it.
- Continue assessment of new technology in preparation for next wave of architecture development to support Army Transformation, Objective Force and Joint Vision 2020.
- Support Army functional area architecture development (e.g.: logistics, intelligence, and personnel support) in parallel to similar efforts underway in the Joint arena.

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. Glossary of Frequently Used Army Enterprise Architecture Acronyms and Abbreviations:

1CD	1st Cavalry Division (the 2nd Digitized Division)
1DFSA	First Digitized Force Systems Architecture (the 1st Digitized Division Systems Architecture)
2DFSA	Second Digitized Force Systems Architecture (the 2nd Digitized Division Systems Architecture)
3ACR	3rd Armored Cavalry Regiment (the 1st Digitized Armored Cavalry Regiment)
4ID	4th Infantry Division (the 1st Digitized Division)
82AB	82nd Airborne Division (the First Digitized Light Division)
AEA	Army Enterprise Architecture
AEADP	Army Enterprise Architecture Development Plan
AEAGD	Army Enterprise Architecture Guidance Document
ARFOR	Army Forces
BSF	Brigade Set Fielding
BCT	Brigade Combat Team
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance
DII COE	Defense Information Infrastructure Common Operating Environment
DP	Development Plan
EGOSC	Enterprise General Officer Steering Committee (a brigadier general/SES-level body)
FDC	First Digitized Corps (III Corps)
FDD	First Digitized Division (the 4ID)
GIG	Global Information Grid
I3	Installation Information Infrastructure
I3A	Installation Information Infrastructure Architecture
IBCT	Interim Brigade Combat Team
IT	Information Technology

JTA-ARMY	Joint Technical Architecture-Army
M&S	Modeling and Simulation
OA	Operational Architecture
SA	Systems Architecture

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Description Information:

Initiative Name and Acronym: Army Recruiting Information Support System (ARISS)
Initiative Number: 6040 IT Registration System Number (Section 8121), FY 2000 DoD Appropriation): DA00489

Executive Agent for this Major Initiative: Army
Program 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): 6 February 2001.
Project is in III Milestone, Approval Dated: 6 February 2001, Production & Deployment Phase for all ARISS increments.
Project Status: New ☐ Ongoing ☒

Information Technology Project or National Security System:

Is this project a financial management or Mixed Financial System? No

Percentage of System supporting Information Assurance Activities: 2%.

Project Date for Completion: 30 September 2001.
Mission Critical Status: No.

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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

	Dollars in Millions						
	Cumulative Total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
OMA	9.2	0.0	0.0	0.0			
Total Dev Mod	9.2	0.0	0.0	0.0			
Full Acquisition							
OMA	31.0	5.2	0.0	0.0			
OPA	68.3	8.9	6.3	8.0			
RDTE	0.0	0.0	8.5	18.9			
Total Dev Mod	99.3	14.1	14.8	26.9			
Current Services/Maintenance							
OMA	8.3	11.8	5.1	12.8			
OMNG	0.0	0.0	0.0	4.4			
MPA	7.9	0.1	0.1	0.0			
Total Current Services	16.2	11.9	5.2	17.2			
Total Resources by FY	**124.7**	**26.0**	**20.0**	**44.1**			

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Part II. Justification:

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 approved OSD Major 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. The Army strategy to correct its legacy system deficiencies was to leverage completed segments of JRISS and build on them to produce ARISS, an Army specific recruiting automation solution. An OSD Acquisition Decision Memorandum (ADM) dated 12 February 1998, delegated management and oversight of this effort to the Army. Army has internally reallocated funds to acquire and deploy a robust integrated automation capability to enhance Army recruiting business processes. ARISS enhances Army's ability to attract highly qualified, capable recruits while reducing individual recruiter workload. 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. 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) Acquisition Decision Memorandum (ADM) on 5 January 1999. The Army DISC4 subsequently delegated MDA to the PEO STAMIS. The PEO STAMIS issued a Milestone III ADM for the second RWS module (Leads/Reports) and the USAREC Headquarters Support System (HSS) consisting of two modules that provide an operational support system to effectively manage recruiting personnel and funding on 6 February 2001. In June 2001, upon certification by the OSD CIO that these ARISS applications were in conformance with the Clinger Cohen Act (CCA), these applications were deployed to the Army recruiting force. With this deployment, the ARISS acquisition was completed and the system was transitioned to the U.S. Army Recruiting Command (USAREC) for continued operation and sustainment. As a result of this transition and the completion of the ARISS acquisition, formal reporting of ARISS concludes with this IT Capital Investment Exhibit submission.

USAREC plans to use the completed ARISS capability as a nucleus for efforts to continuously 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 was designed to allow core personnel data to be entered at the point of entry for recruits into the Army. The system supports establishment of standard personnel data elements in consonance with DoD Corporate Information Management (CIM)/Business Process Review (BPR) policies. Electronic interfaces are currently planned for or in place 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 provides critical software tools and associated automation infrastructure to support recruiters and the overall recruiting mission. It provides 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 maintained the same phased approach used in the joint program.

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

- JRISS Alpha increment. The Alpha increment installed the recruiter workstation (RWS) infrastructure for this and follow-on increments and provided the recruiter with a mobile multimedia sales presentation, electronic mail, automated aptitude test, and office automation. Through FY00, this increment had been deployed to more than 15,000 Army recruiters and contractors used to augment military recruiters. RWS infrastructure life cycle replacement began 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 is

available to the USAREC Headquarters 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, supports leads distribution, system generated management reports and automated waiver approval process. This application was completed in FY00 and was deployed in June 2001.

USAREC Support Tools. This ARISS capability consists of the following modules: Force Structure; Address and Zip Code Realignment (FAZR) and Mission, Production, and Awards (MPA). The FAZR system allows the maintenance of paragraph and line updates to the Tables of Distribution and Allowances (TDA). It also allows the Battalions (and others) to update the mailing and physical addresses of their associated Recruiting Station Identification (RSID). FAZR automates the quarterly Recruiting Market Analysis (RMA) process and links Counties/Zip Codes to RSIDs for Market Analysis/Assignment. The MPA system automates tasks associated with mission assignment, mission accomplishments, and Delayed Entry Program (DEP) losses. It also measures mission success and tracks/reports incentive points to the recruiters. It also allows all recruits entering the Regular Army (RA) and the U.S. Army Reserve (USAR) to be tracked to measure each recruiter's achievements against missions assigned.

- Legacy Infrastructure Replacement. Infrastructure supporting existing legacy systems was well past its economical service life. Legacy systems were ported to new modern infrastructure that will be reused to support future ARISS enhancements, as completed. This approach reduced near term legacy system infrastructure maintenance costs while improving reliability and data processing capabilities. Savings generated were applied to help offset portions of the sustainment cost for fielded ARISS applications. ARISS infrastructure consists of application processors, network servers and communications hardware. The ARISS acquisition included replacement of obsolete minicomputers with new servers at the 65 MEPS and replacement of approximately 500 guidance counselor workstations modern multimedia desktop PCs. This effort concluded with replacement of obsolete infrastructure at regional data centers and Headquarters, USAREC in FY00-FY01.

ARISS is helping 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 facilitates standardized recruiting business processes across all Army components and provides a means to generate standard military personnel data at applicant entry into the Army. (It also improves military personnel management and minimizes the need for manual data input.) It provides valuable prospecting and sales tools to the individual recruiter to aid in attracting highly qualified applicants for military service. The system complies 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 simplifies 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 makes ARISS 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) (OUSD(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.

USAREC is currently preparing enhancements to be integrated into the completed ARISS system. These enhancements include additional HSS modules (Personnel, Recruiting Improprieties, and Data Warehouse), applications to support redesigned Army Guidance Counselor business processes, and technical enhancements to the ARISS baseline to facilitate web based Point of Sale functionality. These efforts will continue in FY 2001 and FY 2002.

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 USAREC 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 Full Operating Capability has been achieved and the system will transition to

USAREC as Operations and Sustainment (O&S) manager at the end of FY01. The FY02 President's Budget ITSB reflects this transition.

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

The primary system cost drivers requiring intensive management were those associated with system design and development. PM ARISS implemented extensive management controls to assure that goals in this area were met. The primary implementation vehicle was been aggressive teaming with EDS (the prime development contractor) to establish/follow "Software Best Practices" methodologies for each major development task. Each methodology outlined the task process and supporting products and established evaluation criteria for each product. Each task process was managed using a master schedule. As subtasks supporting each process were initiated, products comprising each subtask were placed under configuration management and earned value goals were established. The developer was credited with earned value for each subtask when the products comprising the subtask deliverables met the evaluation criteria and were delivered to the government. USAREC will continue to use a tailored version of this control process to support enhancements to the ARISS system during the operations and sustainment phase of the ARISS life cycle.

Processes were also established to assure that the acquisition effort truly met the end user requirement. Periodic user reviews were conducted to assure continual dialogue and feedback on progress in the acquisition and to assure that system products adequately met user needs. The final integrated product is being maintained by the USAREC. The final ARISS software increment has been deployed. Remaining system requirements will be fulfilled through USAREC managed product enhancements. Use of ICASE tools during ARISS/JRISS development significantly reduced time and effort required for system development. Key Program/Software Development Measures are detailed below:

Schedule and Progress - The ARISS PMO managed progress using a Master Work Breakdown Schedule. The major acquisition tasks were Alpha deployment, development/deployment of USAREC Headquarters applications, development/deployment of the recruiter

workstation applications, redesign of the Guidance Counselor application, and early replacement of legacy system hardware. The project was managed by reviewing the master WBS weekly, assessing performance and progress, and adjusting resources as necessary

Growth and Stability - The ARISS PMO instituted detailed configuration management procedures and used a knowledge management configuration management product during application development. The PMO/contractor team used well-defined methodologies that clearly outlined processes across the software best practices, defined the expected product and established evaluation criteria. Adherence to these procedures and strict CM allowed the PMO to control growth and manage change. All ARISS increments were well controlled using the above process and have entered CM.

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

Software Development Performance - The ARISS PMO and the System Integrator, EDS, formed a sound government/contractor team. The contractor conducted peer reviews of the applications while in development. User reviews were conducted frequently. Individual ARISS increments were completed using a phased or block approach. 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. Remaining ARISS applications were completed, received a favorable system assessment from Army's Operational Test and Evaluation Command (OPTEC) and were fielded in FY 2001.

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.

Business processes implemented to assure a successful ARISS acquisition effort will continue to be used by USAREC with appropriate tailoring to support the ARISS operations and sustainment and enhancement missions.

C. Contract Information:

Major contract names; prime contractor. Software development support for ARISS was provided by Electronic Data Services (EDS), Fairfax, Virginia (GSA BPA Number GS04K98DEA0001 established against GSA Schedule Contract Number GS-35F-3109D). EDS will continue to provide software enhancement and maintenance support to USAREC.

Type of contract. ARISS infrastructure (Commercial Off the Shelf (COTS) hardware and software) was acquired from multiple vendors through use of existing Indefinite Delivery/Indefinite Quantity (IDIQ) contracts and GSA acquisition vehicles. Custom software development was accomplished through a time and materials contract with EDS. The terms of the task order were based on the terms and conditions of the GSA Schedule Contract, the GSA BPA and the ARISS Statement of Work (SOW). The support was 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:

1. 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 was designed to be no less than JTA/COE Level 6 compliant.

2. Infrastructure Strategy: All data processing infrastructure is part of the ARISS acquisition. Communications infrastructure strategy is delineated in the Transport paragraph below.

3. HW requirements included in this funding. All ARISS hardware requirements for data processing are included in this funding. Hardware requirements for data transport are being satisfied through a combination of system specific products and leveraging existing Army/DoD communications assets.

4. Transport. A combination of methods is used to satisfy transport requirements. Intra-installation (on a post, base, or camp) transport requirements are supported by dedicated system transport assets. Inter-installation (between posts, bases, or camps) transport requirements are 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 were supported through use of dial up telecommunications capability. With the number of laptops requiring Internet service scaling to an estimated 15,000 units, the most cost-effective solution for satisfying this requirement was through a commercial Internet Service Provider (ISP). These same recruiters also have access to the Recruiting Services Network (RSN), a private communications infrastructure that is maintained and operated by USAREC. The information within the RSN community is of a highly personal, sensitive nature, and must be protected from access or interception by unauthorized persons. In accordance with the ARISS Information Assurance (IA) strategy, to secure the RSN from unauthorized users, ARISS uses secure Virtual Private Network (VPN) technology. Secure VPN allows an unsecured public network to be used as though it was a secure, isolated LAN, by encrypting data sent over the ISP network. The ARISS VPN solution provided internet access control to the RSN and allows for secure transmission of sensitive but unclassified data (SBU).

5. 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.

6. 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 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 were 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.

Development of the RWS Leads/Reports module and the FAZR and MPA applications was completed in FY00 and testing efforts in preparation for full ARISS fielding were completed in early FY01. The FAZR system allows the maintenance of paragraph and line updates to the Tables of Distribution and Allowances (TDA). It also allows the Battalions (and others) to update the mailing and physical addresses of their associated Recruiting Station Identification (RSID). FAZR provides for the accomplishment of the quarterly Recruiting Market Analysis (RMA) process. The linking of Counties/Zip Codes to RSIDs for Market Analysis is done through the FAZR system. The MPA system encompasses activities of mission assignment, mission accomplishments, Delayed Entry Program (DEP) losses, measures mission success and tracks/reports incentive points to the recruiters. A Milestone III ADM for these application was signed by the PEO STAMIS on 6 February 2001. Following CIO certification as to ARISS Clinger Cohen Act (CCA) compliance, these applications were deployed in June 2001. Enhancements to the ARISS RWS, to be completed and fielded in FY02 include Personnel (PER), Data Warehouse (DW), and Guidance Counselor Redesign (GCR). The PER module will re-engineer all of the command personnel "systems of record" (ARISS-CIMs, ARC3S-CIMs, PIMs, PTAS) into a single system, providing data load from TAPDB-AE, ARGMIS, ACPERS and TAPDB-G. This will reduce/eliminate data entry; eliminate duplicate systems; implement DOD data standards; eliminate dependency on aging/obsolete hardware and software; and improve data accessibility. The DW will provide a set of integrated data, of strategic importance to the Army. DW will specifically replace Market Analysis System, Enhanced Applicant Files, ORDB, ORMF, Recruiter Improprieties, etc. This will improve data integrity; improve response time to

Congressional inquiries; improve market targeting and programs; and will enhance customer relations through improved knowledge of individual requirements and trends, customization, and improved communications. The final enhancement scheduled for FY02 is the GCR. GCR will introduce true mobile recruiting business practices. It will provide for recruiting with Guidance Counselor functionality, Point of Sale capability, and access to all systems required to process new soldiers into the Army. GCR will compliment the Secretary of the Army virtual office and cyber station initiatives. GCR will provide capability for the recruiter to present and reserve available job training, enlistment programs and options from the Web; automate all contracting forms; provide a complete electronic signature/packet, QA capability and an automated packet delivery system; and will eliminate dependency on aging/obsolete Legacy System hardware and software.

F. Financial Basis for Selecting the Project:

	Dollars in Millions						
	Sunk Costs	**FY 00**	**FY 01**	**FY 02**			
APB Total Resources by FY	151.5	20.0	10.0	13.7			
Rebaseline Total Resources by FY	124.7	26.0	20.0	44.1			

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. The ARISS ROI was updated for the FY 2001 full system Milestone III. The full system ROI was determined to be better than 8 to 1.

Part III. Assessment:

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. The ACP was updated by CEAC in FY2001 and the updated version showing a full system ROI of better than 8 to 1 was approved by the ASA(FM&C). Based on this updated data, an ADM was issued by PEO STAMIS authorizing full deployment of remaining ARISS increments and the OSD CIO certified ARISS compliance with provisions of the Clinger Cohen Act (CCA). These actions allowed full ARISS deployment in June 2001.

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	Cum total FY 1999 and prior	FY 2000	FY 2001	FY 2002			
B. Previous Balance:							
Cost Goals ($M)	124.7	23.3	20.8	9.6			
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)	124.7	22.9	20.0	9.9			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	124.7	26.0	20.0	44.1			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	0.0	3.1	0.0	34.2			
Schedule Goals (months)	0	0	0	0			

Note: Previous Balance, and Baseline 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. The Current Estimate also includes resources controlled by USAREC and the Army National Guard needed to properly sustain ARISS.

- Baseline of APB - An updated ARISS Cost/Benefit Analysis and corresponding APB were completed in FY 2000. These products received final HQDA validation which resulted in the ASA (FM&C) approving the ARISS Army Cost Position (ACP) in January 2001 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 8 to 1.

- Slippages: ARISS experienced a schedule slippage on the FY00 Product Line. This delay was primarily due to significant requirement changes as the Army instituted business process improvements in response 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 2001 President's Budget.

- Basis of the dollar change and impact the milestone/phase/increment objectives: There have been minor changes since the FY 2001 President's Budget. .

- Variance from FY 2001 President's Budget: Program cost changes since the FY 2001 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.

❖ Performance Goals (report for same years/groupings as the Cost and Schedule Goals) —Summarize the Performance goals of the acquisition and show how the assess will help the agency meet its overall mission, strategic goals, and annual performance plan. Summarize the in house and contract work goals here. (Note - this section is new for this year!)

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 selected legacy systems and achieve ARISS Full Operational Capability (FOC) in FY 2001.

a. Provide all the functionality contained in the legacy systems being replaced.

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 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. Automate recruiting documentation processing, leads management, and management reports. Provide full prospecting capabilities to include market information, automated update and distribution of leads.

h. 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.

i. Provide office automation, electronic mail capability, and limited Internet access.

j. 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.

k. Provide a built-in data backup capability.

l. Transmit applicant projection and testing data to the Military Entrance Processing Stations for processing and ultimate entry into personnel and training systems.

m. 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 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. Development of the final RWS increment (Leads/Reports) and two other recruiter support applications (FAZR and MPA) was completed in FY00 and testing is ongoing. Fielding of these products plus required hardware

- infrastructure to replace legacy systems will be accomplished in early FY01 and transfer of individual system tasks to USAREC will commence.

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

- Variance from performance from FY01 President's Budget: No variance.

- Corrective actions, barriers or risks to meeting schedule goals and methods to reduce risk: Currently defined program scope is achievable within the established schedule. Required risk reduction efforts have been implemented and there are no anticipated barriers or risks to meeting schedule goals.

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.

F. Corrective Actions:

- PM ARISS has instituted aggressive cost control procedures. Based on current FYDP resource levels, the ARISS program is now fully executable.

- Effect the actions will have on cost, schedule and performance. The ARISS acquisition has been completed and remaining FYDP resources are sufficient to maintain the system and provide selected system enhancements.

- Barriers or risks to meeting funding/cost goals and methods to reduce risk. Current ARISS funding is now 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 has been 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 discrete increments. The first increment (Alpha) was completed through the joint program and was fielded to Army and selected USMC recruiters. PM ARISS completed fielding Increment Alpha to Army recruiters and enhanced the Alpha capability incrementally with Army specific capabilities. PM ARISS has fielded the Alpha capability along with all Army specific enhancements (RWS and HSS) to the full Army recruiting community.

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Schedule Goals:

Milestones

Baseline (Milestone) Schedule	Last President's Budget (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 ARISS to Army	12 Feb 98	Completed	
Army Milestone III (Infrastructure)	3QFY98	Completed	
Army Milestone I/II (Remaining Development)	3QFY98	Completed	
Army Milestone III (Packet Projection)	2QFY99	Completed	
Army Milestone III (Manage Leads/Reports/Total ARISS Integration)	1QFY01/4QFY01	Completed	

- Change to the estimate (reason and impact). The final ARISS fielding milestone was achieved in June 2001 and the system has been fielded to the Army recruiting community. Army is evaluating options to add selected features to ARISS as enhancements through the Post Deployment System Support (PDSS) process.

- Justify variance from schedule from FY01 President's Budget. Schedule has been accelerated due to decision to eliminate selected features from the developmental ARISS baseline.

- Corrective Actions, barriers or risks to meeting schedule goals and methods to reduce risks. No anticipated barriers to achieving program completion in FY01.

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Description Information:

Initiative Name and Acronym: Close Combat Tactical Trainer (CCTT)
Initiative Number: 5053 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation):

Executive Agent for this Major Initiative: Department of the Army
Program 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 ☒

Information Technology Project or National Security System: IT

Is this project a financial management or Mixed Financial System. No

Percentage of System supporting Information Assurance Activities: 0%

Project Date for Completion: FY04 is final year of production with deliveries in FY05. OMA will continue for life-cycle support.
Mission Critical Status: Yes

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Part I. Summary of Spending For Project Stages:

Project Name and Acronym: Close Combat Tactical Trainer (CCTT)
Project Activity/Mission Area: Function Area Applications Area/Science and Technology

	Dollars in Millions						
	Cumulative Total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002 (this is the Budget Year)**			
Planning							
Total Dev Mod	201.3	0.0	0.0	0.0			
Full Acquisition							
OPA	209.0	63.7	41.6	30.4			
MCA	52.0	0.0	0.0	0.0			
RDT&E	22.2	12.8	7.7	5.0			
Total Dev Mod	283.2	76.5	49.3	35.4			
Current Services/Maintenance							
OMA	30.8	17.9	23.1	30.7			
Total Current Service							
Total Resources by FY	**515.3**	**94.4**	**72.4**	**66.1**			

Part II: Justification

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 33 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 was a performance-based contract but used a Prime Item Development Specification based on waiver. During the LRIP contract, the contractor provided the necessary resources, equipment and facilities to modify, fabricate, verify, deliver and install CCTT systems which met the performance criteria specified in the 116865 Prime Item Development Specification (PIDS). The current FRP contract is a full performance based contract.

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 complete. Low Rate Initial Production (LRIP) is complete. Full Rate Production (FRP) is on schedule.

F. Financial Basis for Selecting the Project:

	Dollars in Millions						
	Program Year 1	**Program Year 2**	**Program Year 3**	**Program Year 4**	**Program Year 5**	**Program Year – N**	**Total**
APB Total Resources by FY							
Increment 1- N if applicable							
Rebaseline 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)	Objective	Threshold	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. OPTEMPO of 800 miles per tank and Bradley per year for the AC and 288 OPTEMPO miles per tank per year for the RC was programmed to obtain T1 Readiness level for the battalions utilizing CCTT.

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

Part III: Assessment:

A. Description of Performance based system(s):

Baseline Information: Funding established in FY91

	Cum total FY 2000 And prior	**FY 2001**	**FY 2002**			
B. Previous Baseline:						
Cost Goals ($M)						
Schedule Goals (milestones)						
C. Baseline:						
Cost Goals ($M)	776.6	3.9				
Schedule Goals (months)						
D. Current Estimate:						
Cost Goals ($M)	515.3	94.4	72.4			
Schedule Goals (months)						
E. Variance from Baseline Goals:						
Cost Goals ($M)	-261.3	90.5	72.4			
Schedule Goals (months)		24.0	36.0			
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		Apr 01				
Ft Riley		Jul 01				
USAREUR			Feb 02			
Korea			Jun 02			
USAREUR Site 2						
Additional Knox Modules						
Mobile Sites	Aug 98/Jul 99/Sep 00			Aug 03		

The "TCAT" MDEP is shared between CCTT and AVCATT. OMA is in shared MDEP WCLS. Therefore, funding cannot be updated from PROBE or RDAISA." Baseline and Current Estimate contain RDTE and OPA appropriations.

Cost Goals – Current APB provides the CCTT Baseline at the total Program funding level. Refer to Part II, Section F for the APB.

- 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. Congressional decrement then occurred in FY99, FY00 and FY01 causing a replan of deliveries.

- 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 Budget (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	
FOT&E 1b		Mar 99	
FOT&E 1b		Jul 00	
First Unit Equipped	Feb 99/May 99	Feb 99/May 99	
Initial Operation Capability	Apr 99/Jul 99	Apr 99/Jul 99	

Congressional decrements and the Army's desire to increase the quantity of simulators has extended the delivery schedule. The FY99, FY00, and FY01 Congressional reduction has reduced the quantity procured in FY99, FY00, and FY01.

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 Acquisition Program Report (MAPR). Breach of APB thresholds is briefed to the AAE through the ASARC Management channels.

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	Scout Section, Infantry Squad, Platoon HQ
Semi- Automated Force	Individual Platform to Battalion Size Units
Capabilities	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. FOT&E 1a was completed March 99 and FOT&E 1b was completed August 00. LRIP was approved, 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 (5 Fixed Sites, 2 QUICKSTART Sites, and 4 Mobile configurations.)

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.

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Description Information:

Initiative Name and Acronym: Global Combat Support System-Army/Tactical (GCSS-A/T)
Initiative Number: 5070 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation): DA01333

Executive Agent for this Major Initiative: Army
Program Activity/Mission Area**:** Logistics Functional Area
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 in December 1997
Date of Last Acquisition Decision Memorandum (ADM): MS O/I/II 28 May 97
Project is in Milestone II , Approval Dated: 28 May 97, Design & Engineering & Development Phase as of current review.
Project Status: New ☐ Ongoing ☒

Information Technology Project or National Security System: IT

Is this project a financial management or Mixed Financial System?

Percentage of System Supporting Information Assurance Activities: $4.8M is programmed to support security certification and accreditation for FY01-07 representing 0.004 percent of the FY02-07 POM funding.

Projected Date for Completion: 1st Qtr FY07.
Mission Critical Status: Yes

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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						
	Cumulative Total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Full Acquisition							
OMA	37.0	38.7	0.0	0.0			
OPA	5.0	27.6	29.5	52.2			
RDTE	0.0	0.0	71.4	91.8			
Total Dev Mod	42.0	66.3	100.9	144.0			
Current Services/Maintenance							
MPA	0.0	0.1	0.1	0.1			
OMA	0.4	5.0	12.1	11.6			
OMAR	0.0	0.0	2.1	4.3			
OMNG	0.0	0.0	1.5	3.0			
Total Current Services	0.4	5.1	15.8	19.0			
Total Resources by FY	**42.4**	**71.4**	**116.7**	**163.0**			

Part II. Justification:

A. Description/Performance Characteristics:

GCSS-A/T is the Army's seamless, integrated, modular, and interactive Combat Service Support (CSS) information management and operations system at all force support levels. The databases and processes of the application programs shall accommodate system operations in network/information centralized environments. The software will be Web-based capable. The system shall operate on state-of-the-art commercial-off-the-shelf (COTS) operating systems and databases and shall run on COTS hardware. Over time the operating systems, databases, and hardware are likely to change as computer technology continues to rapidly advance. The modular design of GCSS-A/T will allow the system to accommodate CSS missions and organizations as required. Since all the requirements for GCSS-A/T cannot be built in a single software module and, as in legacy systems, these requirements continue to evolve over time, the project will be divided into multiple module developments, which must be integrated and will have iterative builds to ensure the most current requirements of the users are continuously being met.

GCSS-A/T will be the system to provide the integrated capabilities of logistics "stovepipe" Standard Army Management Information Systems (STAMIS) and the Integrated Logistics Analysis Program (ILAP). The system will take advantage of interfaces with automatic identification technology (AIT) devices, single source data entry, and relational databases. These features will enable users to have a common view of the battlefield and to distribute the requisite CSS support when and where needed. The command and control (C2) link to the Army Battle Command System (ABCS) will be made through an interface between GCSS-A/T and systems such as the Combat Service Support Control System (CSSCS) and Forward Battle Command, Brigade and Below (FBCB2). The principal logistics STAMIS, and variants thereof, to be functionally integrated, include: the Unit Level Logistics System (ULLS); Standard Army Retail Supply System (SARSS); Standard Property Book System - Redesign (SPBS-R); Standard Army Ammunition System (SAAS); and the Standard Army Maintenance System (SAMS). ILAP, which has transitioned to project management control, will now be managed as a STAMIS until incorporation into GCSS-A/T. Planned enhancements to ILAP will continue to be developed and fielded. Communications interfaces and protocols will be integral to GCSS-A/T so that external transmissions will be initiated from within the functional applications.

This requirement 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 in Army 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.

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 C.

GCSS-Army will develop a CIO (8121) Certification to support their next MDR. After review by a DA sponsored IPT, it will be provided to the DA CIO for endorsement.

B. Program Management/Management Oversight:

The process owner is Deputy Chief of Staff for Logistics (DCSLOG). GCSS-Army/Tactical 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 Management Information Systems (STAMIS) who reports directly to the Army Acquisition Executive (AAE). The incumbent PM is an Acquisition Corps member, certified Level III in the career fields of Program Management and Communications/Computers.

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 (Tactical) 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 Tactical 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:

Government Research Corporation International, Inc. (GRCI), McLean, Virginia was the prime contractor for GCSS-Army. PM GCSS-Army Tactical awarded a new contract to TRW in April 2001 to be the prime system integrator/system developer.

The STAMIS Computer Contract II (SCC II) with Government Technology Services, Inc. (GTSI), Chantilly, Virginia is a competitive Indefinite Delivery Indefinite Quantity (IDIQ) contract and is the primary acquisition vehicle. Since all Non-Developmental Item (NDI) hardware and COTS software is JTA compliant, performance-based contracting does not apply for the SCC II contract.

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 complaint 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 (Tactical) satisfies transport requirements by utilizing existing Army infrastructure.

Compliant as designed or currently operating. GCSS-A/T will be complaint 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 complaint with Level 6.

GCSS-Army/T 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:

FY99:

- Opened the GCSS-Army Fort Hood Test Facility in May 99 providing testing in “Army Warfighting Experiment (AWE) like" environment.

- Conducted Software Requirements Review (SRR) for the Integrated Materiel Management Module (IMM) and Management Module in June 1999.
- Completed the detailed requirements analysis for the GCSS-Army Supply Property (SPR) and Maintenance (MNT) modules. Prototype screen and design specifications developed for the ten functional Computer Software Components (CSC) that comprise the SPR Computer Software Configuration Item (CSCI).
- Completed a successful OTRR for the SPR release.

FY00:
- In April 2000, the PM announced a four-month slip in development resulting in SPR MS III decision being rescheduled to 3rd Quarter FY2001.
- Restructured the program and briefed all concerned senior leadership as required by regulation and the prime directive.
- Formed a special Red Team to work with the Government and Contractor to look at technical approach issues.
- Contractor named a new Program Manager (PM) allowing the former PM to now focus solely on delivering the product.
- Initiated Independent Verification and Validation (IV&V) effort.
- Conducted an independent Government assessment validating the programs cost and schedule.
- Initiated development of web-based prototype based on Defense Planning Guidance (DPG).
- In June 2000, Vice Chief of Staff, Army assigned Commanding General, USAMC, as Director of the GCSS-Army GOWG and Commanding General CASCOM as Deputy Director.

FY01:
- Awarded Prime Integrator/Developer Contract to TRW 19 April 2001.

FY02:
- Limited Procurement Decision for SPR module scheduled 1st Quarter FY02.
- Fielding approval for remainder of SPR of SPR scheduled for 2nd Quarter FY02.

FY03:
- Fielding approval for Build 1 of the maintenance module, scheduled for 2nd Quarter FY03.
- Fielding approval for the Management module is scheduled for 2nd Quarter FY03.

FY04
- Fielding approval of Build 2 of the Maintenance Module scheduled for 2nd Quarter FY04.

FY05
- Fielding approval for the Ammunition module scheduled for 1st Quarter FY05.
- Fielding approval for the SSA Module is scheduled for 1st Quarter FY05.

F. Financial Basis for Selecting the Project:

	Dollars in Millions						
	Sunk Costs	**FY 00**	**FY 01**	**FY 02**			
APB Total Resources by FY *	42.4	71.4	116.7	163.0			
Rebaseline Total Resources by FY	N/A						

Total Life Cycle cost is based on 19 May 1998 APB.

New ISCEA is scheduled for completion in September 2001 in conjunction with Milestone C.

Part III. Assessment:

A. Description of Performance based system(s):

Baseline Information:

Army Overarching Integrated Process Team (OIPT) 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.

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	Cum total FY 1999 and prior	FY 2000	FY 2001	FY 2002			
B. Previous Balance:							
Cost Goals ($M) – FY00 PB	42.4	74.0	80.4	114.3			
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)	42.4	73.1	117.0	170.9			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	42.4	71.4	116.7	163.0			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	0.0	-1.7	-0.3	-7.9			
Schedule Goals (months)							

Funding Variances reflect FY02-07 POM adjustments.

F. Corrective Actions:

Schedule Goals:

Milestones

Baseline (Milestone) Schedule	Last President's Budget (PB FY01)		Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Army Milestone O/I/II	3rd Qtr FY97	3rd Qtr FY97	
Army Milestone C (SPR Module)	4th Qtr FY00		2nd Qtr FY02

Army Milestone I Tier III	2nd Qtr FY00		TBD
Fielding Decision Maint Build 1			2nd Qtr FY03
Fielding Decision Maint Build 2			2nd Qtr FY04
Fielding Decision /MGT	2nd Qtr FY01/ 2nd Qtr FY02		2nd Qtr FY03
Army Milestone IIID SSA Module	1st Qtr FY02		1st Qtr FY05
Army Milestone IIIE Ammo Module	1st Qtr FY03		1st Qtr FY05

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Performance Goals:
The Acquisition Baseline states functional requirements for GCSS-Army (Tactical):

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.

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Description Information:

Initiative Name and Acronym: Global Command and Control System – Army (GCCS-A)
Initiative Number: 6491 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation):

Executive Agent for this Major Initiative: Army
Program 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 ☒

Information Technology Project or National Security System: No

Is this project a financial management or Mixed Financial System? No.

Percentage of System supporting Information Assurance Activities: 5%

Projected Date for Completion: N/A
Mission Critical Status: Yes

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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 FY1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
Total Dev Mod	0.0	0.0	0.0	0.0			
Full Acquisition							
OPA	84.5	13.2	10.1	8.6			
RDT&E	83.5	10.5	14.1	13.5			
Total Dev Mod	168.0	23.7	24.2	22.1			
Current Services/Maintenance							
OMA	100.7	50.9	44.7	32.6			
MPA	0	1.8	1.8	2.1			
Total Current Services	100.7	52.7	46.5	34.7			
Total Resources by FY	**268.7**	**76.4**	**70.7**	**56.8**			

NOTE: The OMA funding line was software maintenance to PM and site support to DISC4. The PM GCCS-A managed portion of OMA funding went away in FY2001 and beyond. OMA funding in FY2001 and beyond is distributed directly to key Army sites by DISC4. PM GCCS-A has no control over the distribution or management of these OMA funds.

Part II. Justification
Provide Requested Justification Materials:

A. Description/Performance Characteristics:

The mission of the Global Command and Control System-Army (GCCS-A) is to provide critical automated warfighting command and control tools for Army Strategic, Theater and Tactical Commanders executing ARFOR responsibilities in support of joint and combined operations. 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). An ORD for GCCS-A additional functionality and requirements was approved by TRADOC Headquarters on November 2000. 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 in FY01 will be on upgrading previously fielded hardware to ensure consistency and compatibility with current technologies, and on completing the equipping of all Army-managed worldwide sites.

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 TRADOC approved GCCS-A 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: Dr. Oscar
Program Executive Office Command, Control and Communications Systems (PEO C3S): BG Mazzucchi
Project Manager, Army Tactical Command and Control Systems (PM ATCCS): COL Horner
Product Manager, Global Command and Control System - Army (GCCS-A): LTC Williamson

Contracting Office, CECOM Acquisition Center, Washington Operations Office (CACWOO): Mrs. Peggy Butler
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 Fixed Fee and Award Fee, 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 Delivery Managers
    - Delivery integrity is the responsibility of a Government Delivery Manager supported by various Integrated Product Teams. These include program IPT, Risk IPT, Engineering IPT, Test IPT, Supportability IPT, and any IPT mutually created between the Government and contractor in support of program execution.

  - 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.
    - 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, ATCCS 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 on deliveries of software packages.

D. Architecture and Infrastructure Standards:

- The Delivery Managers ensure 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 2000.
- GCCS-A currently installed in 11 commands with a network that supports over 2000 workstations and over 3000 users. GCCS-A will complete fielding to four 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 Planning Guidance (DPG), FY96-2001, Section III, 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 DPG guidance. 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. This O&M funding is distributed directly to the key Army locations and is not managed by the Product Manager, Global Command and Control Systems – Army.

	Dollars in Millions						
	Sunk Costs	**FY 00**	**FY 01**	**FY 02**			
APB Total Resources by FY *	268.7	34.1	24.2	22.1			
Rebaseline Total Resources by FY	268.7	76.4	70.7	56.8			

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

Part III. Assessment:

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 in support of a Delivery Manager to ensure program priorities are in line with contract funding. Detailed monthly Cost Performance Reports (CPR) and Contract Funds Status Reports (CFSR) support the various IPTs. Variance explanations are provided as requested by government program Business Management Division.

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PMO	Cum total FY 1999 and prior	FY 2000	FY 2001	FY 2002			
B. Previous Balance (01 BES):							
Cost Goals ($M)	300.6	68.7	57.9	55.8			
Schedule Goals (milestones)							
C. Baseline (00 PB Position):							
Cost Goals ($M)	303.9	68.4	61.5	58.8			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	268.7	76.4	70.7	56.8			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	-35.2	8.0	9.2	-2.0			
Schedule Goals (months)							

F. Corrective Actions: Not Applicable

Schedule Goals:
Milestones

Baseline (Milestone) Schedule	FY00 President's Budget (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	Aug 00	
ABCS 6.1 Interoperability	Jun 00	Jun 00	
First Digitized Division (FDD) Interoperability (ABCS 6.2 x Interoperability)	Nov 00	Oct 01	
Release Contract Extension RFP	Feb 01	Feb 01	
Award GCCS-A Contract Extension	Jun 01	Jun 01	
Delivery 4 Development Complete			Sep 03/Sep 03

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 4QFY00 (August) is scheduled for completion in Nov 00 after Validation in Oct 00.

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Description Information:

Initiative Name and Acronym: Information Systems Security Program (ISSP)
Initiative Number: 0967 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation):

Executive Agent for this Major Initiative:
Program 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 or National Security System: IT

Is this project a financial management or Mixed Financial System. No.

Percentage of System supporting Information Assurance Activities: 100%

Project Date for Completion: N/A
Mission Critical Status: N/A

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Part I. Summary of Spending For Project Stages:

Project Name and Acronym: Information Systems Security Program (ISSP)
Project Activity/Mission Area: 0967

	Dollars in Millions						
	Cumulative Total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
Full Acquisition							
Current Services/Maintenance*							
OMA	74.6	71.3	73.8	62.1			
OPA	72.0	60.3	66.5	35.8			
OMAR	1.0	2.1	1.7	2.1			
OMNG	0.9	0.9	0.8	0.5			
RDT&E	26.1	14.3	14.5	8.3			
MPA	6.5	2.5	2.0	2.8			
RPA	0	0	.2	.1			
Total Current Service	181.1	151.4	159.5	111.7			
Total Resources by FY	**181.1**	**151.4**	**159.5**	**111.7**			

* Budget figures do not include PKI, which is reported separately.

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Part II: Justification

A. Description/Performance Characteristics:

The Army Information Systems Security Program (ISSP) is not a Major Army Information System (MAIS) but a program. This is the final time this program will have a capital investment report submission. In addition, since PKI is reported separately, ISSP PKI items are not included in this report.

Army ISSP goal is to secure the Army portion of the Global Information Grid (GIG) and to provide secure information and information based system protection to the force. Securing the GIG and protecting information and information systems is accomplished through implementing OSDC3I's Defense-in-Depth strategy. The Defense-in-Depth approach integrates the capabilities of people, operations, and technology to establish multi-layer, multi-dimension protection. The Army's Network Security Improvement initiative implements the DoD's Defense-in-Depth concept.

The Army's Network Security Improvement initiative implements DoD mandated Defense-In-Depth and Computer Network Defense policies to counter ever-expanding asymmetric threats. It is a comprehensive agenda of innovative policies and procedures, state-of-the-art hardware/software enabling technologies (e.g., firewalls, intrusion detection systems, proxy technologies, and biometrics), and new training and retention initiatives designed to protect the Army's critical information infrastructure from the sustaining base to the deployed force.

There are ten Defense-in-Depth areas of focus and the following paragraphs describe the major IA activities that contribute to each category. Detailed descriptions and budget data by defense-in-depth category can be found in the National Security Agency (NSA) Information Assurance Congressional Justification Book.

Defend the Computing Environment

- **Biometrics.** The Army Chief Information Officer (CIO) established the Biometrics Management Office (BMO) in FY2000. The BMO was created to serve as the coordination and development center over a full spectrum of biometric systems and technologies. Effective use of biometrics will provide the DoD a decisive edge in all operational environments with the best and most reliable security access control for information and weapons systems. On July 13, 2000, the President signed Public Law 106-246 naming the Army as the DoD Executive Agent, chartered to lead, consolidate, and coordinate all biometrics IA activities for the Department. The charter also included a mandate to establish oversight and support infrastructure for all DoD biometrics programs.

- **Secure Terminal Equipment (STE).** Secure Terminal Equipment is the next generation of secure voice and data equipment for advanced digital communications networks. STEs are the first product that can use either ISDN or the analog Public Switched Telephone Network (PSTN) for secure communications. STEs features include simultaneous digital voice & data to multiple destinations, backwards compatibility with STU-III (analog mode), fast (2-second) secure call setup, three-party conferencing (secure), multiple user and multiple terminal associations, and more.

Defend the Enclave Boundary

- **Defend the Enclave Boundary.** Implements DEPSECDEF memorandums and DoD policy to develop an enterprise-wide IA security architecture overlay that employs technical solutions to the maximum extent possible to implement a defense-in-depth strategy. The architecture overlay will,
  - Defend against unauthorized modification or disclosure of data.
  - Ensure that physical and logical enclaves are adequately protected.
  - Provide a risk-managed means to selectively allow essential information to flow across enclave boundaries.

- Ensure that local defense-in-depth infrastructures support local operational needs while feeding data to Army level activities, allowing rapid, coordinated actions Army-wide, regardless of the scale of the intrusion.
- Support centralized, perimeter level dynamic throttling of services due to changes in risk posture.

Defend the Networks and Infrastructure

- **Perimeter Defense.** Army's Perimeter Defense (established between the Enclave and DISN) is the strategy for implementing DoD mandated Defense-In-Depth in accordance with (IAW) DoD Policy and Guidance Memorandum 6-8510, Information Assurance (IA) and DoD Draft Directives and Instructions 8500, Information Assurance and 8530, Computer Network Defense (CND). The Perimeter Defense architecture overlay will,
  - Provide boundary defenses for unprotected systems within the Army domain.
  - Ensure an acceptable level of availability by defending against denial of service attacks.
  - Provide the Army's gateway protection/detection/response capability and the locus of sensors in the Army's Attack Sensing and Warning (AS&W) sensor grid.
  - Enable rapid detection of and response to intrusions.
  - Provide Common Operational Picture (COP) of networks and systems.
  - Provide technical capability to maintain strict configuration management of the Army's perimeter defenses.

- **In-Line Network Encryptors (Global Grid) Products.** TACLANE provides in-line network encryption capability which allows Sensitive Unclassified and TS communications links to be tunneled through the Secret Tactical Internet, precluding the necessity to establish three separate networks to process various classification levels required in the tactical environment.

- **Global Centralized Network Monitoring / Configuration Management.** Implements DoD mandated Defense-in-Depth requirements to "Defend the Networks (Perimeter Defense) and the Enclave Boundaries." The focus is on people and updates the licenses for the tools necessary to,

- Maintain centralized network monitoring and configuration management of the Top Level (security) Architecture (TLA), the Army's "Perimeter Defense" of all NIPRNet connections.
- Maintain the reengineered protected Army Domain Name Service (DNS) architecture, to include license updates of the host based security devices on the DNS servers.
- Maintain/upgrade licenses for all the IA tools that the Army centrally manages, to include over 2,500 Intrusion Detection Systems (IDS) and approximately 700 firewalls, proxy and servers, and 40 plus scanners that the RCERT/ACERT manage.

Defensive Information Operations

- **Computer Emergency Response Teams (CERTs).** The heart of the Army's CND capability is the Army's Computer Emergency Response Team (ACERT) working in close coordination with the Army Network Operations and Security Center (ANOSC). Each Regional CERT (RCERT) and co-located Theater NOSC (TNOSC) provides a mutually supportive "911" capability to Army users to sort through network outages and anomalies and identify and react to cyber attacks. These co-located RCERT and TNOSC centers are at Ft. Huachuca, Arizona; Mannheim, Germany; Ft. Shafter, Hawaii; and Camp Walker, Republic of Korea. The RCERTs and TNOSCs work together to monitor IDS installed at all Army gateways to the Nonsecure Internet Protocol Router Network (NIPRNET) and on critical servers. Together, they are the Army's capability to provide a fully coordinated Common Operational Picture (COP) of the health of the Army's systems and networks and provide Attack Sensing and Warning (AS&W) support to Army users worldwide in protecting against and responding to cyber attacks.

- **Information Assurance Vulnerability Alert (IAVA).** The Army is in the forefront in verifying that the DoD Information Assurance Vulnerability Alert (IAVA) "positive control" process is being fully implemented. The Army created and dispatches an IAVA Compliance Verification Team (CVT) to conduct short-notice on site inspections of units. Units are randomly selected and verification performed to determine if vulnerabilities identified in IAVA messages have been corrected. The CVT consists of security technicians, Army Criminal Investigation, and Army Audit Agency personnel who not only inspect, but also provide on site support, assistance, and recommendations for improving security. The IAVA CVT has inspected over 25

units worldwide and its findings require a reply by endorsement to the Army Chief Information Officer (CIO) on follow-up action. Results are also provided to the Senior Army Leadership, as required. The presence of the IAVA CVT and the knowledge that the Army's Senior Leadership is actively involved in reviewing the findings has proven to be a most valuable tool in improving the security of Army systems and networks.

IA for the Tactical Environment

- **Communications & Network Security Products.** Provides communication security, crypto-security, transmission security, emission security, computer security, information assurance and equipment and products as a means of protecting telecommunications and information systems that 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 transmitted by information and communication systems. Products supporting the tactical environment include,
  - The KY-100 AIRTERM, which provides the capability of securing transmissions of voice or data over narrow-band and wide-band HF, VHF, UHF radios and tactical satellite systems in an airborne environment.
  - The KIV-19 for applications where the KG-194 cannot be used, such as hot weather locales, or when weight or size is a constraint.
  - KIV-7s are being fielded in Army Intelligence systems and in support of video teleconferencing.

IA Management and Operations (General)

- **IA Policy and Architecture Development and Management Oversight.** Army will intensify its Management Oversight effort to identify, categorize, and eliminate or secure "back doors" into the Army's information and information-based systems infrastructure and increase DEPSECDEF mandated "positive control" overlaying systems and networks. Management

Oversight has been and will continue to focus on the process of identifying and applying new and evolving technologies to accomplish the DoD-mandated defense-in-depth strategy to use technical solutions to the maximum extent possible.

IA Security Management

- **Army Key Management System.** Army's implementation of the Electronic Key Management System (EKMS), the Army Key Management System (AKMS), will enhance standardization of communications security and reduce vulnerabilities associated with physical key. The AKMS will provide the Army with the capability for distributing electronic key to COMSEC devices and the capability for automated ordering, generation and production, storage, replication, and accounting for electronic key.

- **Major Command (MACOM) Security Management Activities.** Implements mandated DoD and Army Information Assurance standards within the MACOM. MACOM security management activities include,

  - Training: System administrator certification training (IA workshops and resident level 2 and 3 training) and Information System Security Manager (ISSM), Information System Security Officer (ISSO), and Department of Defense Information Technology Security Certification and Accreditation Process (DITSCAP) Mobile Training Team (MTT) training.
  - IA Technology Insertion: IA Tools include firewalls, IDS, scanners, vulnerability, and purge tools that are available on the Army Blanket Purchase Agreement (BPA) and Commercial Off the Shelf (COTS) tools not listed on the IA BPA obtained in accordance with Army guidance. IA tools will not be purchase without a plan to train personnel to install, configure, and audit the tools.
  - Information Assurance oversight and IAVA compliance and verification.

- **Information Security / Communications Security Support.** The Army's COMSEC Logistics Activity (CSLA) and Tobyhanna Army Depot manages, supports, sustains, and maintains over 588,000 INFOSEC and COMSEC systems used by

soldiers in the field. CSLA has responsibility as the COMSEC / InfoSec National Inventory Control Point (NICP) and manages the worldwide acquisition, fielding, distribution, and lifecycle support of COMSEC / InfoSec products. As the National Maintenance Point (NMP), CSLA manages the maintenance engineering and maintainability support performed by the depot for COMSEC / InfoSec products.

IA Supporting Infrastructures

- **Key Management.** Provides for centrally managed COMSEC/INFOSEC equipment replacement, upgrades, and enhancements for all Army-supported EKMS Tier 1 sites, both CONUS and OCONUS. Tier 1, the centerpiece of EKMS, increases communications security, ensures standardization and interoperability among the services and Civil Agencies, and minimizes lead-time for securing communications.

IA System Security Methodology

- **Information Assurance Development.** Project integrates National Security Agency (NSA) developed security technology into Army information systems. Project objectives are to provide systems security mechanisms through encryption, trusted software or standard operating procedures to protect the information and to integrate these mechanisms into specified systems so secure operations are as transparent as possible to the users. This entails performing architecture studies and modeling, development models, system integration and testing, installation kits and certifications and accreditation of Automation Information Systems. Project will also assess, develop, integrate and demonstrate C2 Protect Common Tools (hardware and software) that will provide protection for fixed infrastructure for post, camps, and station networks as well as efforts on tactical networks.

- **Information Operations Vulnerability and Survivability Assessments (IOVSA).** The IOVSA process facilitates a focused effort to provide decision-makers the necessary information with which to make informed decisions concerning the IO

susceptibilities and vulnerabilities of their systems. With this information decision-makers can evaluate countermeasures and protection recommendations to enhance the ability of any system to perform its assigned mission.

IA Training

- **Training Program and Facilities.** Army has rapidly implemented a robust training and certification program. Training targeted System Administrators, Network Managers, Information System Security Officers / Managers, and user level personnel. It included the development of IDS and firewall training courses. Quarterly workshops, hosted by the Army CIO, also provide a focus for Army Systems Administrators and Network Security Managers with hacking demonstrations, threat briefs, and cyber crime information. More than 200 students attend each workshop.

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/Management Oversight:

ISSP is not a system and therefore does not have a formal Program Manager (PM) or Executive Agent. HQDA (ODISC4) manages the Army ISSP. NSA is the National Manager for the ISSP. 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 Information:

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 under the guidance of Communications Security Logistics Activity (CSLA) (NSA provides support) 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 coordinates all initiatives with NSA.

D. Architecture and Infrastructure Standards:

- ISSP is not a system but provides an information assurance architecture overlay to legacy, interim, and objective force communication and information systems. ISSP information assurance efforts adhere to the NSA Information Assurance Technical Framework (IATF) document, which provides technical guidance for protecting United States Government and industry information and information infrastructures. The information infrastructure processes, stores, and transmits

information critical to the mission/business operations of the organization. Protecting this information is achieved through "Information Assurance" that addresses the full suite of security requirements for today's information infrastructure. Information assurance relies on the people, the operations, and the technology to accomplish the mission/business and to manage the technology/information infrastructure. Attaining a robust information assurance posture means implementing polices, procedures, techniques, and mechanisms at all layers throughout the organization's information infrastructure.

The IATF defines a process for developing a system with information assurance and the security requirements for the hardware and software components in the system. Applying these principles results in layers of protection in the information infrastructure known as Defense-in-Depth Strategy.

- Hardware requirements are included in the funding.

- The components that comprise the various information assurance architecture overlays are a mix of COTS and custom equipment with the majority being COTS. Custom equipment is currently limited to TACLANE, a rugged INFOSEC product that provides Asynchronous Transfer Mode (ATM) and Internet protocol (IP) layer security service for multi-media applications.

E. Program Highlights:

To defend the networks and enclaves, the density of systems and network security tools and technologies layered throughout the Army portion of the Defense Information Systems Network (DISN) to accomplish Defense-in-Depth has been increased considerably. In addition to the hundreds of firewalls and intrusion detection systems (IDS) purchased by local commanders, the Army has centrally purchased and fielded over 900 firewalls, security routers, and proxy technologies and 2,500 IDS to harden the infrastructure. In concert with these actions, the Army sought to centrally control, through the procurement and maintenance process, the quality of IA tools and licenses for Army-wide use of firewalls and firewall-like technologies, IDS, and proxy technologies. To ensure that IA tools are of uniform quality, the Army established an operational policy that the only IA tools authorized for use on Army systems and

networks are those listed on the Army IA Blanket Purchase Agreement (BPA). Thus, a new tool cannot be introduced into the IA architecture until it meets minimum quality specifications as required by the IA BPA. The Office of the Assistant Secretary of the Army's Director of Information Systems for Command, Control, Communications, and Computers (ODISC4) must approve any waivers requesting the use of tools other than those on the IA BPA.

One of the Army's biggest success stories is the acceleration of training and certification programs for System Administrators, Network Managers, Information System Security Officers / Managers, and user level personnel. Expansion of and upgrades to training also included development of IDSand firewall training courses. Most significantly, System Administrator and Network Manager security training have been expanded from one laboratory with only 240 spaces in April of 1998 to 12 laboratories with 2,760 spaces annually by the end of Fiscal Year 2000. Every space has been and is projected to be filled through 2001.

The First Digitized Division (FDD) fielded IA Defense-in-Depth capabilities that included perimeter, network, enclave, and host level IA tools, as well as new tactics, techniques and procedures (TTP). The Army conducted three major IA network assessments of the emerging IA architecture being fielded to the FDD. Each assessment provided critical feedback to the materiel developers on the effectiveness of the current architecture. Adjustments to the architecture, configurations of IA components, and TTP were based upon previous findings and evaluated for effectiveness. These changes ensure enhanced capability and survivability.

The FDD also conducted much needed system level Information Operations Vulnerability and Survivability Assessments (IOVSA) on many of its systems. This effort primarily focused on the Army Battle Command System (ABCS) and its related network backbone systems. These IOVSAs identified vulnerabilities in operating systems, applications, and system components that could be potentially exploited. Providing the results of these IOVSAs to the materiel developer for rectification, mitigation, and determination of risk acceptability has significantly enhanced the overall survivability of the individual systems and reduced risks to the tactical networks.

The Army CIO established the Biometrics Management Office (BMO) in FY2000. The BMO was created to serve as the coordination and development center over a full spectrum of biometric systems and technologies. Effective use of biometrics will provide the DoD a decisive edge in all operational environments with the best and most reliable security access control for information and weapons

systems. On July 13, 2000, the President signed Public Law 106-246 naming the Army as the DoD Executive Agent, chartered to lead, consolidate, and coordinate all biometrics IA activities for the Department. The charter also included a mandate to establish oversight and support infrastructure for all DoD biometrics programs. BMO accomplishments to date include completion of feasibility and social/legal studies; establishment of its management office in the Washington D.C. area; a report to Congress on Army biometrics efforts; and leasing of a facility in Bridgeport, West Virginia to house the Fusion Center.

F. Financial Basis for Selecting the Project:

ISSP is not a system and therefore does not have an associated Full Life-Cycle cost or baseline position.

	Dollars in Millions						
	Program Year 1	**Program Year 2**	**Program Year 3**	**Program Year 4**			
APB Total Resources by FY—N/A							
Rebaseline Total Resources by FY	**181.1**	**151.4**	**159.5**	**111.7**			

Cost/benefit analysis of the Army Information Systems Security Program is embedded in its enabling contribution to *JV2020* and attainment of Full Spectrum Dominance. Protection of information and information systems through the integration of Information Assurance actions is critical to successful information operations and ultimately achieving Full Spectrum Dominance. Information Superiority binds the *JV2020* operational concepts of Dominant Maneuver, Precision Engagement, Focused Logistics, and Full Dimensional Protection in achieving Full Spectrum Dominance vision. *Joint Vision 2020* further states, "Information superiority is transitory in nature and must be created and sustained by the joint force through the conduct of information operations." Information Assurance is an inextricable subset of Information Operations.

JV2020 also tells us that, "The transformation of the joint force to reach full spectrum dominance rests upon information superiority as a key enabler…." Information Assurance as a component of information operations critically and substantially contributes to transforming the Army to its Objective Force goal.

Part III: Assessment:

A. Description of Performance based system(s):

Baseline Information: ISSP is not a system and therefore does not have an identifiable programmatic baseline. As such, ISSP does not have formalized Cost, Schedule, and Performance Goals.

Annotated in the following charts are the ISSP budgetary goals that facilitate the Army ISSP goal to secure the Army portion of the Global Information Grid (GIG) and to provide secure information and information based system protection to the force.

	Cum total FY 1999 And prior	**FY 2000**	**FY 2001**	**FY 2002**			
B. Previous Baseline: N/A							
C. Goal:							
Budget ($M)	186.3	155.0	217.8	271.8			
D. Budget Estimate:							
Budget ($M)	181.1	151.4	159.5	111.7			
E. Variance from Budget Goal:							
Variance ($M)	-5.2	-3.6	-58.3	-160.1			

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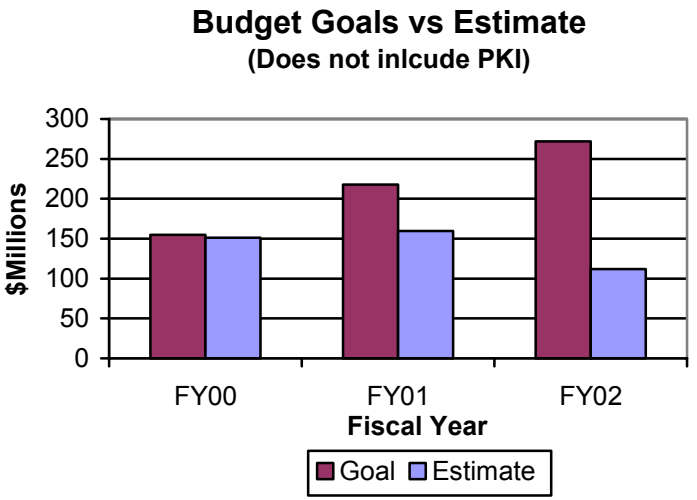
Data does not include PKI, which is reported separately

FY02 Budget Goals

- Protect and defend information and information systems during all phases of militray operations in all environments.
- Provide INFOSEC/COMSEC hardware and software purchases and sustainment support, training, and salaries.
- Support detecting system intrusions, alterations, and provide the capability to react to information warfare attacks in a measured and coordinated manner. Support defensive information warfare requirements.
- Support Joint Staff mandate to replace 20% of STU-IIIs per year for next five years.
- Support the Army as Executive Agent to lead, consolidate, and coordinate all biometrics information assurance activities for Department of Defense. Ensure that biometrics technologies are integrated effectively into information assurance architecture overlays, physical access control systems, best business practices, and other DoD applications, as appropriate.
- Integrate IA architecture overlay supporting *JV2020* and Army transition.

FY02 Budget Estimate

- Replaces critical STU-III in FP1 – FP4 (14,000).
- Supports approximately 50% of in-line network encryption capability requirement (TACLANE).
- Supports approximately 50% of non-embedded COMSEC and IA systems, firewall/firewall-like technologies and associated hardware platforms, select proxy technologies, and scanners for use internal and external to the domain.



- Minimally supports intrusion detection and response provided by the Army Computer Emergency Response Teams.
- Provides austere support to Army MACOM IA activities.
- Maintains IA Training at current levels.

FY02 Budget Issues

- Army biometrics initiative is unsupported. FY02 Other Procurement.
- Global network monitoring and configuration management capability is unexecutable.
- Connectivity at Standardized Tactical Entry Points (STEPs) and access to the DII backbone (KG-189) is unsupported.

F. Corrective actions: N/A

Schedule Goals:
Milestones

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

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Description Information:

Initiative Name and Acronym: Installation Information Infrastructure Modernization Program (I3MP) (previously known as Power Projection, Command, Control, Communications and Computer Infrastructure (PPC4I))
Initiative Number: 2180 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation) N/A

Executive Agent for this Major Initiative: Army
Program 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.

Project Status: New ☐ Ongoing ☒

Information Technology Project or National Security System: IT

Is this project a financial management or Mixed Financial System? No.

Percentage of System supporting Information Assurance Activities: Less than 1%

Projected Date for Completion: N/A
Mission Critical Status: N/A

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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

	Dollars in Millions						
	Cum total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
Total Dev Mod							
Full Acquisition							
OPA	432.8	185.6	126.9	160.6			
Total Dev Mod	432.8	185.6	126.9	160.6			
Current Services/Maintenance							
OMA	40.3	.6	4.2	3.0			
Total Current Service	40.3	.6	4.2	3.0			
Total Resources by FY	**473.1**	**186.2**	**131.1**	**163.6**			

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Part II. Justification:

A. Description/Performance Characteristics:

The I3MP is a synchronized effort involving four components (Digital Switched Systems Modernization Program (DSSMP); Common User Installation Transport Network CUITN); Outside Cable Rehabilitation (OSCAR) program; and Army Defense Information Systems Network (DISN) Router Program (ADRP)) 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. The implementation of I3MP OCONUS (Europe and Pacific Theaters) will commence in FY02. 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.

All efforts are heavily dependent on exploitation of the Integrated Project Team (IPT) 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 General Dynamics Government Systems Corp., Halifax Corp., Lucent Technologies, Verizon, Williams Communications, Southwestern Bell, Siemens, Engineering and Professional Services (EPS), OAO and CISCO.

The programs under I3MP use the competitively awarded Digital Switched Systems Modernization Program's (DSSMP), Indefinite Delivery/Indefinite Quantity (ID/IQ) contract and other existing competitively awarded open-use vehicles. Secondary competition among ID/IQ contract holders continues to force prices downward, using the "competition after award" concept.

D. Architecture and Infrastructure Standards:

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

E. Program Highlights

The PM DDNs recently installed Ft Shafter CUITN Network successfully passed System Acceptance Testing (SAT) on 18 Jun 01. A Ribbon Cutting Ceremony commemorating the installation was conducted on 20 Jun 01. The CUITN FY00 Implementation efforts at Forts Wainwright, Riley and Polk are on schedule and will be completed in FY 02. Fort Benning, another FY00 site, will be completed in early FY03. Forts Eustis, Dix and McPherson (all FY01 sites) were awarded (Implementation) in the 3rd Qtr FY01. Project Implementation will be completed in FY03. Current CUITN funding levels will also support new starts (in FY01) at Rock Island Arsenal and Anniston Army Depot, with project completion scheduled for FY03. The PM DDN is also providing preliminary coordination support for the implementation of the I3MP in the European (Germany, Italy) and Pacific Theaters (Korea, Japan) in FY02.

PM DSSMPs modernization efforts are currently in process at Forts Monroe, Gordon and Rucker, and at Edgewood Arsenal (Phase II); all will be completed in FY 01. Forts Bragg and Detrick, and Site-R are also undergoing modernization and will be completed in FY02. The Delivery Order for West Point was awarded on 29 Mar 01; modernization efforts will be completed in FY02. Acquisition/planning was initiated for Forts A.P. Hill, Benning, Belvoir, Knox and McCoy; all will be completed in FY02, with the exception of Fort Knox, which is scheduled to be completed in FY03.

The APM OSCAR / PM DDN jointly awarded contracts for the installation of
the outside cable plant (OSCAR) and data network equipment (CUITN) for Rock Island ARS in Feb 01, Forts Dix and McPherson in May 01 and Fort Eustis in Jun 01. The Redstone ARS, implementation award is scheduled for Jun 02. The Fort Shafter OSCAR implementation was completed in Apr 01. After a brief hiatus (cold weather), the Fort Wainwright (Phase II) cable installation is scheduled to be completed in Sep 01. OSCAR installation began at Anniston AD on 18 Jun 01 and continues at Forts Riley, Benning and Polk. The installation of the outside cable plant at Forts Riley and Benning is scheduled for completion in FY02. Anniston AD and Forts Polk, Dix, Eustis and McPherson will be completed in FY03.

F. Financial Basis for Selecting the Project:

	Dollars in Millions						
	Sunk Costs	**FY 00**	**FY 01**	**FY 02**	**FY 03**	**FY 04-07**	**Total**
Total Resources by FY							
Total Resources by FY*	473.1	186.2	131.1	163.6			

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

Part III. Assessment:

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.

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	Cum total FY 1999 and prior *	FY 2000	FY 2001	FY 2002			
B. Previous Balance:							
Cost Goals ($M)	350.3	150.3	97.3	158.8			
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)	461.4	149.6	98.4	244.0			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	473.1	186.2	131.1	163.6			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	11.7	36.6	32.7	-80.4			
Schedule Goals (months)							

Variance Analysis: The changes reflected in Fiscal Years 02, 03 and 04-07 are a result of adjustments made to the program's funded levels between the Sep 00 BES and the Jun 01 Pres Bud positions.

F. Corrective Actions:

Schedule Goals:
Milestones: N/A

Baseline (Milestone) Schedule	Last President's Budget (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.

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Description Information:

Initiative Name and Acronym: Joint Computer-Aided Acquisition and Logistics Support (JCALS)
Initiative Number: 1039 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation): DA00499

Executive Agent for this Major Initiative: Army
Program 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): 14 Feb 01
Project is in II Milestone, Approval Dated: Oct 1993, System Development & Demonstration Phase as of current review.
Deployment is being implemented incrementally. ADM issued 5 August 1998 authorized deployment of Software Package (SWP) 2 capabilities to Army, Navy and Marine Corps. ADM issued 7 December 1999 authorized deployment of SWP 2 to Air Force.
Project Status: New ☐ Ongoing ☒

Information Technology Project or National Security System: Yes

Is this project a financial management or Mixed Financial System? No.

Percentage of System supporting Information Assurance Activities: 5%

Project Date for Completion: June 2007
Mission Critical Status: No

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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						
	Cumulative Total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
OMA	23.7	0.0	0.0	0.0			
Total Dev Mod	23.7	0.0	0.0	0.0			
Full Acquisition							
DBOF Capital Budget	143.7	0.0	0.0	0.0			
MPA	0.1	0.1	0.1	0.1			
OMA	385.8	44.5	0.0	0.0			
OPA	138.2	32.3	57.8	22.9			
RDTE	0.0	0.0	45.7	37.1			
Total Dev Mod	667.8	76.9	103.6	60.1			
Current Services/Maintenance							
OMA	21.8	40.3	16.7	29.3			
Total Current Services	21.8	40.3	16.7	29.3			
Total Resources by FY	**713.3**	**117.2**	**120.3**	**89.4**			

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/updating, 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 plus generic authoring and electronic signature tools. Although 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 up to 440 sites based on functional user defined priorities. These sites will be integrated into a comprehensive JCALS enterprise.

JCALS infrastructure provides a distributed, open systems environment that makes extensive use of commercial standards. The integration of JCALS infrastructure and automated tools with application software supporting TM functional processes establishes a seamless Integrated Data Environment (IDE) that will allow users, through a common interface, to access technical data and other required information, regardless of location, through a single desktop device. The JCALS technical architecture is designed for flexibility and growth, and can accommodate additional system requirements, technological improvements, and new functionality. Potential benefits to be derived from JCALS include:

- Automated tools to support improved/reengineered business processes.

- A more timely and efficient flow of technical, logistic and acquisition data between Government and industry.

- A reduction in the time required to develop and deploy weapon systems and associated technical data.
- 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).

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 environment for TM business processes, with a fully distributed architecture, including hardware, software, communications and support capability needed to support reengineered TM business processes.

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 automation capabilities facilitate reengineered DoD business processes and move DoD into a digital world. The JCALS Information Assurance (IA) strategy focuses on properly securing JCALS data while providing ready access to required capabilities by authorized JCALS users and complying with applicable DoD Information Security regulations/policies. JCALS is

currently accredited in accordance with the DoD Information Security Certification and Accreditation Process (DITSCAP). JCALS is currently certified and accredited to process information up to the Sensitive But Unclassified (SBU) level and will migrate to the new DoD Common Criteria Controlled Access Protection Profile (CAPP) Evaluation Assurance Level 3 (EAL3), formerly known as C2, in the Systems High mode of operation. JCALS complies with DoD security advisory requirements and processes. JCALS participates in and closely monitors DoD efforts to enhance security through initiatives such as Defense-in-Depth, Public Key Infrastructure (PKI), Common Access Card (CAC), and Biometrics. As these technologies mature, they will be incorporated into the JCALS enterprise, enhancing JCALS security and providing a cost effective means to keep JCALS synchronized with evolving DoD security policy.

The Joint Mission Need Statement for JCALS development was approved in 1992. JCALS requirements are also contained in the Technical Manual Functional Description document, initially approved in 1991, and revised and approved in 1992. An Operational Requirements Document (ORD) is not required for the program. JCALS was already being developed when ORDs were added to the system acquisition process for information management systems. As a result, ASD (C3I), the JCALS MDA, waived the ORD requirement for JCALS.

B. Program Management/Management Oversight:

JCALS is an ACAT-1AM program. The Milestone Decision Authority for JCALS is the Assistant Secretary of Defense (Command, Control, Communications and Intelligence). The Program Executive Officer for Standard Army Management Information Systems (PEO STAMIS) oversees the management of JCALS. 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 OSD(C3I) led Overarching IPT provides oversight of the total program. The OIPT membership includes: ASD (C3I), Director for OT&E, PA&E, DUSD(L&MR), functional representatives of each military service, Army DISC4, and the PEO and PM.

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), Acquisition Program Baseline (APB), C4 Integrated Support Plan (C4ISP), 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 cost 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:

The prime contractor is 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 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 principles.

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.

Modifications to the existing JCALS contracts incorporate performance based contracting.
Contractual efforts to provide Phase 4 (Deployment) support for JCALS are being transitioned from the current contract with CSC. PM JCALS pursued a competitive approach to continuation of this effort. This was accomplished through the Defense Acquisition Logistics Information Management System (DALIMS). DALIMS is a fully competed firm fixed price ID/IQ contract to provide hardware, software, site surveys, system integration, facility preparation, installation, testing and sustainment of deployment sites. This contract was competitively awarded to CSC in the third quarter of FY01. The contract will have a one-year base and two option years. Deployments under open Delivery Orders (DOs) for the existing contract will continue for up to a year and CSC will also continue to provide Life Cycle Software Support (LCSS) and maintenance support from the existing contract through FY03.

D. Architecture and Infrastructure Standards:

1. 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 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.

2. Infrastructure Strategy: Most infrastructure supporting JCALS application software is acquired by PM JCALS using JCALS funds. Exceptions to this include user provided desktop PCs/user workstations and selected communications assets.

3. Hardware Requirements: Hardware requirements for all JCALS data processing above the user desktop are included in this funding. End user organizations are responsible to furnish desktop PCs/user workstations for connection to JCALS. JCALS leverages existing communications assets where appropriate to support system data transport. Selected communications infrastructure to augment existing assets is included in JCALS hardware requirements where needed to support high volume intra-site data transport

4. 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.

5. Interdependencies: 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.

6. Use of COTS: 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. PM JCALS is evaluating options to eliminate selected custom coded JCALS software products and replace them with equivalent COTS products to improve system supportability and interoperability.

E. Program Highlights:

1. To date, PM JCALS has deployed the Technical Manuals (TM) capability to 96 sites, 67 of which are fully integrated into the JCALS enterprise. An additional 64 sites are in various stages of deployment. The full JCALS enterprise will consist of 440 TM sites and more than 31,000 users. The 96 installed sites consist of 42 Air Force sites, 18 Army sites, 33 Navy sites, and 3 Marine Corps 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. In 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 allocated to 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 for replacement of service-specific legacy systems in a timely fashion, reducing the impact on individual services of delays in completion of SWP 3.

6. Development of SWP 3, Increments 1/2 will be completed in FY01. Upon completion, and receipt of Milestone C approval from the OIPT (scheduled for September 2001), deployment of these increments will commence.

7. Development of SWP 3, Increment 3 will be completed in FY02. Upon completion, and receipt of Milestone C approval from the OIPT (scheduled for Jun 02), deployment of the full JCALS capability will commence.

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 is updating program cost data in preparation for the Milestone C for SWP 3 (Increments 1/2). This data is anticipated to be available in August 2001 and will be used to update the JCALS Acquisition Program Baseline (APB).

	Dollars in Millions						
	Sunk Costs	**FY 00**	**FY 01**	**FY 02**			
APB Total Resources by FY	713.3	132.5	143.6	146.2			
Rebaseline Total Resources by FY	713.3	117.2	120.3	89.4			

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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. A JSCP and updated APB will be developed and agreed upon prior to Milestone C for JCALS Software Package 3 (Increments 1/2).

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 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
- Life cycle is FY 1999 to FY 2014

A description of the top five program risks is provided as follows

Additional costs to implement key SWP2 enhancements (TXP porting, Beta Publishing, database links) needed by the Air Force may delay SWP3 development and testing. The impact would be a delay of SWP3 (Increment ½) Milestone C, which will delay services' transition/cut-over from legacy systems. These systems are suffering performance degradations and are costly to maintain.

Delay of SWP3 Increment 1/2 development would delay Operational Testing (OT). This would delay Milestone C, which will delay services' transition/cut-over from legacy systems. These systems are suffering performance degradations and are costly to maintain.

Delay in SWP3 Increment 1/2 OT will delay Milestone C decision, which will delay services' transition/cut-over from legacy systems. These systems are suffering performance degradations and are costly to maintain.
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.

Part III. Assessment:
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.

JCALS has never been formally baselined. The initial Acquisition Program Baseline (APB) was approved by the Services but the Milestone Decision Authority (MDA) requested that the document be updated with the latest schedule information before final approval. The MDA issued an additional Acquisition Decision Memorandum (ADM) in February 2001. Based on direction in that ADM, the APB is again being revised. The final APB based on approved CBA data for the JCALS SWP 3 (Increment 1/2) Milestone C will be provided in conjunction with this Milestone C.

JCALS JTM Milestone C (for SWP 3. (Increments 1/2) is scheduled for September 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).

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.

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Variance from FY01 President's Budget:

During development of the FY02-FY07 POM, Army reduced JCALS funding by $244M from FY02-07. The cumulative impact of this reduction is being assessed. Preliminary estimates indicate that it could delay achievement of JCALS Full Operational Capability (FOC) by up to 3 years.

	Cum total FY 1999 and prior	FY 2000	FY 2001	FY 2002			
B. Previous Balance:							
Cost Goals ($M)	713.3	154.1	158.2	161.1			
Schedule Goals (milestones)							
C. Baseline							
Cost Goals ($M)	713.3	115.9	109.9	123.0			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	713.3	117.2	120.3	89.4			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	0	1.4	10.4	-33.6			
Schedule Goals (months)							

F. Corrective Actions:

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. A Milestone C ADM authorizing incremental deployment will be issued following successful operational testing of Increments 1 and 2 and again following successful operational testing of Increment 3. 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.

PM JCALS has instituted a broad scope of changes and initiatives in the past year, aimed at improving program performance and efficiency. Management of Change Requests, which are fixes to the SWP2 baseline, has been greatly tightened by a Configuration Control Board (CCB) process. The CCB has already met four times, and it's impact has been a considerable increase in program stability. The PM has also realigned the Award Fee structure by providing the contractor with very specific measurement criteria. PM JCALS and CSC conducted an Integrated Baseline Review in May 00, and follow-up meetings have been conducted to pursue Cost/Schedule Status Report restructuring, to allow for increased reporting accuracy and better contract monitoring/forecasting. These efforts underline a mutual commitment by the government and the contractor to achieve program goals in a timely manner.

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Schedule Goals:
Milestones

Baseline (Milestone) Schedule	Last President's Budget (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	Jun 01		
Milestone C – SWP3, Increment 1/2			Sep 01 (4)
Milestone C – SWP3, Increment 3			Jun 02 (4)
FOC	Sep 05		Sep 07

(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.

Variance from schedule from FY01 President's Budget: The single JCALS Milestone III, originally scheduled for June 2001 has been eliminated. PM JCALS and PEO STAMIS, based on a Decision Briefing provided to the DISC4 and subsequent direction, have modified the JCALS deployment approval strategy. A revised schedule has been established under which full deployment approval will be attained in two steps. A Milestone C approval will be obtained in Sep 01 for deployment of SWP3, Increment 1/2. A Milestone C approval will be obtained in Jun 02 for deployment of the full JCALS capability upon completion of SWP3 Increment 3.

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 COE Compliance Level 5 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 FY01 President's Budget: The performance goals are on track.

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Description Information:

Initiative Name and Acronym: Joint Simulation System (JSIMS)
Initiative Number: 2148 IT Registration System Number:

Executive Agent for this Major Initiative: Army
Program Activity/Mission Area: C&CI Science and Technology (Modeling and Simulation)
Date Project was Initiated: July 1995
Date of Last Acquisition Decision Memorandum (ADM): 16 December 1999
Project is in Milestone I/II, Approval Dated: _Oct 9_____,1998 ____ Phase as of current review.
Project Status: New ☐ Ongoing X

Information Technology Project: Yes ☐ No XX

Is this project a financial management or Mixed Financial System? No

Percentage of System supporting Information Assurance Activities: __1%

Project Date for Completion:
Mission Critical Status: No

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Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Joint Simulation System (JSIMS)
Program Activity/Mission Area: C&CI Science and Technology (Modeling and Simulation)

	Dollars in Millions						
	Cum total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002***			
Planning							
RDTE	89.4	21.4	42.3	30.9			
Total Dev Mod	89.4	21.4	42.3	30.9			
Full Acquisition							
	0.00	0.00	0.00	0.00			
Total Dev Mod	0.00	0.00	0.00	0.00			
Current Services/Maintenance							
OMA	0.00	0.00	0.00	7.2			
Total Current Services	0.00	0.00	0.00	7.2			
Total Resources by FY	**89.4**	**21.4**	**42.3**	**38.1**			

* In August 2000, a decision was made to transfer the JSIMS funding (PE0902740J) from the Joint Staff to the Department of Army (PE0604738A – Project Number J11) with an effective date of October 2001 (FY02). Resources depicted prior to FY 2002 do not reflect Army execution of JSIMS.

Part II. Justification
Provide Requested Justification Materials:

A. Description/Performance Characteristics:

JSIMS is a next-generation Modeling and Simulation (M&S) tool to support training for commanders in chiefs (CINCs), their components, joint task force (JTF) staffs, other Joint organizations, DoD agencies, and the Services. JSIMS will provide the ability to jointly train, educate, develop doctrine and tactics, formulate and assess operational plans, assess warfighting situations, define operational requirements, provide operational input into the development of new weapon systems and perform mission planning and mission rehearsal. JSIMS will support all phases of military operations and military operations other than war (OOTW). JSIMS will allow warfighters to train as they intend to fight by interfacing into the simulation through their real-world C4I systems. JSIMS is key in supporting the operational concepts of Joint Experimentation and will improve the interoperability and efficiencies of the Services. JSIMS is specifically supported by the April 2000, Defense Planning Guidance and the 2000 Secretary of Defense Annual Report to the President and Congress.

Each Service at the two-star level and the Joint Requirements Oversight Council (JROC) Secretariat reviewed the JSIMS Mission Need Statement (MNS) dated 20 July 1994. On 23 June 1999, the JSIMS Operational Requirements Document (ORD), version 3.0, was approved by the JROC and the ORD's Key Performance Parameters (KPPs) were validated.

In accordance with DoD Regulation 5000.2R and CJCSI 3170.01, the System Performance paragraph (paragraph 4.1) of the current ORD outlines four key performance parameters (KPPs). The objectives of the KPPs are: (a) Tailorability–Operational Tasks and Conditions: Support the full range of Universal Joint Task List (UJTL) tasks and conditions described in the CJCS Manual 3500.04 series; (b) Composability–Trainer User C4I Systems Interface: Full integration with all Joint, Service, and Special Operations C4I systems; (c) Composability–Distributed Simulation Environment: JSIMS should support Service distribution to deployed platforms and units to allow collaborative exercises at geographically remote sites; and (d) Other–Simulation System Uptime Ration: Achieve 95 percent system availability during a 14-day, 24-hour-per-day computer-assisted exercise.

B. Program Management/Management Oversight:

JSIMS receives oversight and management from several forums. The Joint Requirements Oversight Council (JROC) oversees the operational requirements of JSIMS including KPPs. The Under Secretary of Defense for Acquisition, Technology and Logistics, USD(AT&L), designated JSIMS an Acquisition Category (ACAT) 1D program on 16 December 1999. Effective 2 October 2000 Mr. James W. Skurka, USA, was designated the Program Manager (PM) for JSIMS. The program is currently being restructured as a result of these decisions with major revisions required to the JSIMS memorandum of agreement (MOA) between OSD, Service and agency partners, the Acquisition Program Baseline (APB) and architecture. As a result of being designated a ACAT 1D program, an overarching integrated process team (OIPT) and integrating integrated process team (IIPT) with associated working (WIPTs) were established.

JSIMS has been called out by name every year since 1996, in the Secretary of Defense Annual Report to the President and Congress and is supported by the April 2000 Defense Planning Guidance (DPG). JSIMS helps to meet DoD mission, long-term strategic goals and objectives as a key training and exercise component of JV2010. It will be the centerpiece of future Joint and Service training. JSIMS will greatly improve training efficiency by allowing for distributed, joint, and interoperational training based on the latest doctrine.

JSIMS also plays an important role in fulfilling DoD's Modeling and Simulation Master Plan, DoD 5000.59-P. DoD is phasing out legacy M&S programs in favor of flagship programs, which share common architectures, standards, and protocols. JSIMS is the flagship program for all future training M&S. JSIMS receives technical and acquisition guidance from the Defense Modeling and Simulation Office (DMSO), the Director, Defense Research and Engineering (DDR&E), and training guidance from the DoD EXCIMS Training Council.

C. Contract Information:

The contract selected was done by free and open competition among three bidders. Two proposals were received for source selection; two of the bidders teamed together. The contract was awarded as a Cost Plus Award Fee (CPAF), Contract No F19628-97-C-0014, on 2 December 1996. The contract name was JSIMS Integration and Development; contractor was TRW, Inc., Redondo Beach, CA. The DoD Contracting Office was the US Air Force Electronic Systems Command at Hanscom Air Force Base, MA. As a result of the rebaselining effort directed by OSD, a partial stop work order was issued to the contractor to re-scope its requirements. As part of the re-scope, TRW was relieved of the Core Infrastructure development and integration of the JSIMS software from the other partners. TRW continues to function as the prime contractor for the Joint Development Agent responsible for joint models and C4I connectivity. A contract change proposal was issued in February 2001 defining TRW's new role. The DoD Contracting Office was moved from ESC to STRICOM.

D. Architecture and Infrastructure Standards:

RDTE funds are for development of software and related efforts. The individual Services and CINCs will purchase hardware or they will use what they currently have in place. Hardware specifications are being developed and will call for commercially available open systems.

The JSIMS System Segment Description Document (SSDD) lays out the Joint Technical Architecture (JTA) compliance. Per JTA 1.0 Modeling and Simulation Annex, JSIMS will be fully High Level Architecture (HLA) compliant IAW DoD policy. Effective in December 1999, the Deputy Under Secretary of Defense for Science and Technology, DUSD (S&T), directed a change from the current JSIMS architecture from a High Level Design (HLD) to a more open, interoperable federated HLA. This would include mandated common components, thus enhancing interoperability, scalability and extensibility, and leverage the investment already made in the current JSIMS developments (domain models, simulation engine, mission space objects).

E. Program Highlights:

1. Major Milestones: MS 0 approved 13 Jul 95; Milestone I/II approved 9 Oct 98.
2. Established and approved the Acquisition Program Baseline (APB) document on 26 Mar 98.
3. JSIMS concluded the first build cycle of JSIMS software development (Build 0) in Mar 98 followed by a second build of JSIMS software development (Build 1) in Oct 97.
4. The third build cycle (Build 2) began in May 98, which will populate JSIMS with Mission Space Objects (MSOs) at a more advanced level and Build 1 Test Harness/Universal Role Player (URP) Workstation.
5. The JROC approved ORD version 3.0 on 23 Jun 99.
6. The I&D contractor failed to meet the 10 September 1999 delivery of the Build 2 CI, but it was subsequently delivered in October.
7. JSIMS PEO declared program breaches for both the JSIMS program and the Air Force's National Air and Space Model (NASM) on 19 November 1999.
8. The JSIMS Alliance partners met to produce a new JSIMS Integrated Master Schedule (IMS) that reflected an 11-month slip in the JSIMS IOC date. This slip was driven primarily by additional time required for system integration and development of functionality such as LCAs, as well as, the CI delay in delivery by the I&D contractor.
9. The DUSD (S&T), Dr. Delores Etter, chartered a Senior Technical Review Board (STRB) to conduct a technical review of JSIMS. A memorandum was then issued by Dr. Etter recommending several changes in the JSIMS program including change in architecture, new management structure, development of a revised MOA between partner programs, and restructure of a new APB.
10. On 16 December 1999, USD (AT&L), Dr. J. S. Gansler, designated JSIMS an Acquisition Category (ACAT) 1D program and announced the US Army would provide the new Program Executive Officer (PEO) for JSIMS. Effective 7 January 2000, MG William L. Bond, USA, was designated the PEO.
11. JSIMS re-categorized from "Special Interest" to Acquisition Category (ACAT) 1D by USD (AT&L) in January 2000.

12. The JSIMS partners were directed to technically rebaseline JSIMS including developing a schedule to release Version 1.0 of the software by March 2002 using the High Level Architecture (HLA). As a result of becoming an ACAT 1D, the IOC date was revised to August 2003 to reflect user validation, operational test activities and an IOC joint event in March 03.
13. JSIMS received substantial funding support through Congress, OSD, Joint Staff, Military Services and Agencies to meet the objective of retiring legacy simulation systems used in the Joint Training Confederation by JSIMS V2.0. In August 2000, JSIMS transitioned from the Joint Staff funds to the Army as the Component Executive Agent.
14. The User Advocate, UFJFCOM Joint Warfighting Center, moved the joint IOC event from November 2002 to March 2003 based on priorities for Joint Experimentation. This was briefed and accepted by an OSD Review in December 2001.
15. By January 2001, JSIMS successfully completed five Federate Integration events using the HLA and selected common components with each of the JSIMS partners' development programs.
16. The revised APB for JSIMS was approved 21 March 2001 to reflect BES FY01 funding through FY07. Efforts continue to complete and obtain validation on the Life Cycle Cost Estimate.
17. JSIMS successfully completed its first Federation Integration Event in March 2001. Federation Integration began the cross-domain interactions between the partner developed programs.
18. The Army Component to JSIMS, the Warfighter's Simulation (WARSIM), declared a forward looking schedule breach based on Army Title X requirements not being met by May 2002. Subsequent Army-led Audit was conducted and program began efforts to replan the program. The schedule breach did not affect the JSIMS Version 1.0 release.
19. The JSIMS Management Plan was approved on 22 June 2001 by USD(AT&L).
20. PM JSIMS moved the Version Release 1.0 from March 2002 to June 2002 in order to incorporate a user event into the schedule to further stabilize the software in a user stressed environment.
21. PM WARSIM briefed the CSA and other senior Army leadership on 29 June 2001 on proposals for meeting Army Title X requirements using WARSIM. PM WARSIM directed to provide a feasibility on splitting WARSIM into two components, one for JSIMS and one for Army Title X, and report in 30 days. Briefing is scheduled to MILDEP AAE on 2 August 2001.
22. JSIMS completed its second Federation Integration Event on 20 July 2001. This began cross-domain interactions using the common user interface to the partner domain components.

23. The Joint Cost Position was briefed to the Director of the Army's Cost and Economic Analysis Center. Due to the integration of the partners' Program Office Estimate,
24. Based on lessons learned from the FIE2 event, the FIE3 event will begin 13 August 2001 as scheduled, but will be extended to allow more focuses partner-to-partner integration. This shift in integration forces a postponement of the Systems Functional Assessment, a user event, for a period of time.

F. Financial Basis for Selecting the Project:

	Dollars in Millions						
	Program Year 1	Program Year 2	Program Year 3	Program Year 4	Program Year 5	Program Year -N	Total
	*FY02						
APB Total Resources by FY	38.1						
Increment 1 – N if applicable							
Rebaseline Total Resources by FY	N/A						

* In August 2000, a decision was made to transfer the JSIMS funding (PE0902740J) from the Joint Staff to the Department of Army (PE0604738A – Project Number J11) with an effective date of October 2001 (FY02).

Part III. Assessment:

A. Description of Performance based System(s):

The JSIMS partners are currently generating Program Office Estimates (POE) for their programs. These POEs are being validated by their respective Service and/or Agency cost agencies as appropriate. The Army CEAC develops and validates the Joint Cost Position which is provided to OSD. The OSD/CAIG is also conducting a Cost Assessment. The intent is to generate the Life Cycle Cost Estimate for the program and subsequently update the APB for the program.

An Earned Value (EV) approach is used within the JSIMS Alliance. Reports are submitted on a monthly basis to PM JSIMS. Several of the partner programs are rebaselining their programs resulting from the JSIMS program changes. Army WARSIM program is developing a new APB and Acquisition Strategy based on its April 2001 breach declaration.

Baseline Information: JSIMS is a composite program with funding controlled by each partner program for their specific deliverables. The combination of common components and integration funded by the Joint Staff and functional areas (e.g. warfare domains and intelligence) funded by partners constitute the JSIMS program. The common components designated under the JSIMS rebaselining are actually developed by JSIMS partners, though funded through by the Program Manager (PM). The functional component areas provide simulated mission space objects separately developed and funded by the Services and Defense agencies. The functional components developing modeled objects for the JSIMS program are WARSIM 2000 from the US Army (PE 0604715A); NASM from the US Air Force (PE 0207601F); JSIMS Maritime from the US Navy (PE 0204571N). The US Marine Corps, Defense Information Systems Agency, Defense Intelligence Agency, National Security Agency (NSA), and the National Reconnaissance Office (NRO) are also partners and provide funding for their functional areas.

Management Oversight: JSIMS receives oversight and management from several forums. The JROC oversees the operational requirements of JSIMS including KPPs. The USD (AT&L), designated JSIMS an ACAT 1D program on 16 December 1999. The program continues to finalize documentation as a result of the management restructure. This documentation includes Management

Plan, Acquisition Program Baseline, ORD update, TEMP, MoA and other documentation required as an ACAT 1 D program. JSIMS has been submitting quarterly Defense Acquisition Executive Summaries (DAES) since November 2000. The JSIMS ORD is being blocked to follow evolutionary acquisition spiral development guidance. The V3.0 ORD consists of KPPs which are applicable to Block 1 (Version 1.0). The user advocate is completing an annex to establish KPPs for Block 2 (Version 2.0) with scheduled completion in August 2001. The user will continue to block the ORD to identify the thresholds and objectives for each Block.

	Cum Total FY 1999 And prior	**FY 2000**	**FY 2001**	**FY 2002**			
B. Previous Baseline (PB FY00):							
Cost Goals ($M)	89.4	18.4	16.3	16.5			
Schedule Goals (milestones)							
C. Baseline (PB FY01):							
Cost Goals ($M)	89.4	18.4	24.1	17.8			
Schedule Goals (months)							
D. Current Estimate (BES FY02):							
Cost Goals ($M)	89.4	21.4	42.1	38.1			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	0	0	0	4.6			
Schedule Goals (months)							

The Variance from Baseline goals are based upon the draft PM JSIMS Program Office Estimate. The POE has been submitted to the Army Cost and Economic Analysis Center for final validation. Also, the OSD/CAIG has not completed its Cost Assessment on the program that could affect the variances listed above.

F. Corrective Actions:

Schedule Goals:
Milestones

Baseline (Milestone) Schedule	Last President's Budget (Month/Year)		Current Submission (Month/Year)
	Approved	Achieved	Approved/Estimated
Milestone, phase; increment 1-N			
MS I/II	Oct 98	Oct 98	Approved Oct 98
FRP/IOC	Aug 03	N/A	N/A

Failure of the core infrastructure to be delivered on time resulted in an 11-month slip from April 01 to March 02. Following this, the DUSD(S&T) and USD(AT&L) directed the JSIMS program be restructured involving new leadership, major revisions to the JSIMS MOA new APB and architecture. The rebaselining effort maintained the objective of Version Release Milestone 1.0 in March 02 followed by operational test and evaluation and user validation events prior to an IOC event. The IOC event will occur no later than March 2003. The IOC event also serves as the MOT&E event. A Full Rate Production Review will occur in August 2003 to approve JSIMS IOC for Block 1. The FRP was previously listed as a Milestone III decision under the previous DoD 5000.2R.

Performance Goals:
Congressional adjustments do account for more than 10 percent variance in the total funding level for the JSIMS core. This adjustment is a result of JSIMS funding increase (FY 02-07) which occurred in August 2000. Milestone 0 was approved on 13 July 1995; Milestone I/II, which was scheduled for October 1997, was formally approved on 9 October 1998. The JSIMS rebaselining efforts resulted in an update to the 26 March 1998 APB to cover funding through the FY02-07 POM. This APB was approved on 21 March 2001. Following validation of the Life Cycle Cost Estimate in the Fall 2001, JSIMS will update the APB to capture the complete Life Cycle costs.

The JSIMS ORD and Concept of Operations (CONOPS) were reviewed and coordinated with the program requirements sponsor, the US Joint Forces Command Warfighting Center (USJFCOM-JWFC) in FY97. The updated ORD recommends four KPPs with threshold and objective values. Both were staffed and reviewed by the JSIMS Executive and Development Agents (EA s and DA s). These KPPs, as well as the Joint Universal Capabilities List (JUCLs), were used as the basis for the preparation and approval of the APB document. An evaluation of the status of the program's success against these KPPs and JUCLs will be reported by USJFCOM-JWFC in conjunction with the approved APB. The rebaselined JSIMS will not deviate from the KPPs and JUCLs. The revised APB will reflect funding required to meet the KPPs reflected in the current ORD approved the JROC on 23 June 1999.

A JSIMS Risk Management Board exists with participation by the each of the partners including the Alliance Executive Office as the system integrator and the user representative, Joint Warfighting Center. Risks are identified with associated risk management plans development and implemented. As an ACAT ID program, JSIMS risks are also subjected to review by an IIPT-appointed WIPT.

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Description Information:

Initiative Name and Acronym: Information Management and Telecommunications, Pentagon Renovation
Initiative Number: 1499 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation) _____

Executive Agent for this Major Initiative: Army
Program 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 or National Security System: IT

Is this project a financial management or Mixed Financial System? No.

Percentage of System supporting Information Assurance Activities:

Projected Date for Completion: N/A
Mission Critical Status: N/A

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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 FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
Total Dev Mod							
Full Acquisition							
OPA	108.7	17.1	31.7	33.6			
Total Dev Mod	108.7	17.1	31.7	33.6			
Current Services/Maintenance							
Total Current Service							
Total Resources by FY	**108.7**	**17.1**	**31.7**	**33.6**			

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Part II. Justification:

A. Description/Performance Characteristics:

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

The Washington Headquarters Services (WHS) and the U.S. Army Materiel Command's (USAMC) Project Manager, Information Management and Telecommunications (PM IM&T) have been directed by the Office of the Secretary of Defense to execute a comprehensive renovation of the Pentagon to transform the building into a modern office environment. This renovation will also modernize the 57-year-old Pentagon infrastructure facility services to include heating, ventilation and air conditioning, usable floor space, electricity, water, sewage, information management, video and telecommunications. PM IM&T has been assigned the specific mission of managing the planning, programming, systems design and development, acquisition, installation, integration, and testing of all IM&T related efforts involved with the Pentagon Renovation program. These efforts include modernization of unclassified and classified voice, data and video backbones, consolidation of all building technical controls, modernization and relocation of all voice switching, movement of all user servers, movement of 12 ADP Centers, implementation of a Network Management Center and movement and relocation of all IT assets of the 25,000 tenants. The objective is to provide cost-effective voice, data and video services and capabilities that will best serve the needs of the DoD senior leadership by leveraging technology advancements and designing and developing integrated systems, well into the 21st century.

B. Program Management/Management Oversight:

The two organizations responsible for renovating the Pentagon are Washington Headquarters Service's Pentagon Renovation Office, 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 1992. The mission of the PM IM&T, working in concert with the Pentagon Renovation Program Manger, 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 status of projects to tenant organizations. The requirements were initially reviewed and validated by the Joint Information Management Telecommunications Advisory Group (JIMTAG) in 1992. Four governing Boards replaced the JIMTAG in January 2000. These four Boards are the Pentagon Area Information Services Executive Board (PEB); the Operational Requirements and Performance Board (ORPB); the Resource Strategy Board (RSB); and the Architecture and Configuration Control Board (ACCB). The new governing boards have been formed, members have been identified, and all four boards are in full operation.
The requirements were revalidated in January 1996 when the DepSecDef approved Program Budget Decision 431 establishing the Army OPA funding line to execute PM IM&T initiatives. PM IM&T requirements were again revalidated in December 1997 upon the appointment of a consolidated Pentagon Renovation Program Manager to oversee the Renovation construction efforts. The DISC4 has been designated as the MDA for the PM IM&T as another Major Special Interest Initiative reporting through CECOM to USAMC.

PM IM&T and WHS use an integrated program schedule to monitor program cost and schedule. The two 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 General Dynamics, 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 co-located facilities. Follow-on maintenance of the installed Telecommunications Backbone Infrastructure will be performed by Network Infrastructure Services Agency-Pentagon (NISA-P). PM IM&T has been coordinating definition of the Maintenance Concept with NISA-P.

D. Architecture and Infrastructure Standards:

Selected architectures have been developed and validated with extensive user participation. IM&T has worked with ASD (C3I), the project proponent, to ensure all selected architectures are compliant with the DoD Joint Technical Architecture. All IM&T installations are being performed in accordance with commercial standards and practices.

Current IM&T requirements included in this funding are 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 construction schedule. To assist in program control, an integrated program schedule has been developed to closely monitor cost and schedule.

The approved technical approach for the IM&T physical and electronic infrastructure 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 FY01 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.
- Completed initial installation and cutover of Phase I of the Network and Systems Management Center (NSMC) in Basement Segment 1.
- Completed installation and cut-over of the telecommunications infrastructure for the Basement Segment 2A2, and completed the transition of Segment 2A2 systems to O&M agency.
- Completed installation and cutover for the remaining Basement Segment 1 telecommunications infrastructure, and transition of Segment 1 systems to O&M agency.
- 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	**FY 00**	**FY 01**	**FY 02**			
APB Total Resources by FY							
Rebaseline Total Resources by FY*	108.7	17.1	31.7	33.6			

*This program does not follow the traditional acquisition process but the numbers reflect life cycle costs of program to date. Sunk costs include funds from the Pentagon Reservation Maintenance Revolving Fund to pay for relocation efforts and Other Procurement Army for modernization efforts.

Part III. Assessment:

A. Description of Performance based system(s):

Management oversight of the overall Pentagon Renovation Program is coordinated between the Program Manager, Pentagon Renovation Office and the Project Manager IM&T Pentagon Renovation. The oversight is based on schedule and performance metrics developed for the program office. Construction and installation project milestones and cost performance is tracked via an integrated schedule covering PM IM&T activities as well as tenant relocation events. Interdependencies between the 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.

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	Cum total FY 1999 and prior	FY 2000	FY 2001	FY 2002			
B. Previous Balance:							
Cost Goals ($M)	111.5	15.2	65.4	33.5			
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)	110.7	15.1	32.0	33.5			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	108.7	17.1	31.7	33.6			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	-2.0	2.0	-.3	.1			
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

F. Corrective Actions:
Schedule Goals:
Milestones: N/A

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

Performance Goals:
The FY02 - FY03 goals are:

FY 02

- Continue cutover of circuits (for tenants in the renovated area) to Black and Red Command and Control Switches and the Optical Remote Administrative Switch
- 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.
- Continue implementations, installation and cut-over of the Above Ground Telecommunications backbone in Wedge 1.
- Continue installation and cut-over of the integrated switching systems in the General Purpose Switch Room to support Pentagon subscribers in renovated areas.
- Continue installation and build-out of the South Point of Presence (SPOP) telecommunications facility to support communications route diversity for Wedge 1
- Continue engineering installation plans and detail design for the relocation of the remaining Service Operations Centers and the National Military Command Center (NMCC).
- Completion of Wedge 1 and relocation of tenants from Swing Space and from Wedge 2 into the newly completed Wedge 1.

FY 03

- Continue the backbone infrastructure equipment purchases such as data switches, routers, media and cable.
- Continue the procurement of servers, workstations, and management software for the Network System Management Center buildout which manages the Unclassified and classified Backbones for the Pentagon.

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Description Information:

Initiative Name and Acronym: Reserve Component Automation System (RCAS)
Initiative Number: 1640 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation): DA00063

Executive Agent for this Major Initiative: Army .
Program Activity/Mission Area: Functional Area Applications Area/Reserve Affairs
Date Project was initiated: Restructured Jan 96
Date of Last Acquisition Decision Memorandum (ADM): MS IIIc, 2 May 2000. MS IIId ADM is currently pending.
Project is in IIIc Milestone, Approval Dated: 2 May 2000, Production/Deployment Phase as of current review.

Next Major Milestone: MS IIIe in Sep 01

Project Status: New ☐ Ongoing ☒

Information Technology Project or National Security System: Information Technology Project

Is this project a financial management or Mixed Financial System? No.

Percentage of system supporting Information Assurance Activities: 1%

Projected Date for Completion: N/A
Mission Critical Status: Yes

Certified for compliance with the Clinger-Cohen Act: Yes. The Project completed Army CIO program assessment for MS IIIb, IIIc, and IIId; received DOD CIO Certification for MS IIIc; and has initiated DOD CIO Re-certification for MS IIId which is currently pending approval.

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Part I. Summary of Spending for Project Stages:

Project Name and Acronym: Reserve Component Automation System (RCAS)
Program Activity: Functional Area Applications Area/Reserve Affairs

	Dollars in Millions						
	Cumulative Total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
	0.0	0.0	0.0	0.0			
Total Dev Mod	0.0	0.0	0.0	0.0			
Full Acquisition							
OPA	446.3	82.7	97.9	89.3			
OMNG	86.1	11.8	0.0	0.0			
OMAR	54.2	6.6	0.0	0.0			
Total Dev Mod	586.6	101.1	97.9	89.3			
Current Services/Maintenance							
OMNG	0.0	0.0	12.6	13.6			
OMAR	0.0	0.0	6.6	8.9			
RPA	1.8	1.2	1.3	1.3			
Total Current Services	1.8	1.2	20.5	23.8			
Total Resources by FY	**588.4**	**102.3**	**118.4**	**113.1**			

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 approximately 10,500 Guard and Reserve units at approximately 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. 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.

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 Project continues to embrace the expectations and intent of the Clinger-Cohen Act and DoD CIO certification through the use of a comprehensive, integrated management model. This model makes extensive use of (1) a formal oversight and review board structure (i.e., General Officer Steering Committee (GOSC)), and (2) integrated product teams (IPT) to bring together numerous RCAS stakeholders in performing and fulfilling ongoing Business Process Reengineering (BPR), Analysis of Alternatives (AoA), Economic Analysis (EA), Performance Measurement, and Information Assurance (IA). Specific examples of Project activities in these focus areas are:

- Business Process Reengineering: Despite varied demographics, missions, and organizational philosophies, the ARNG and USAR senior leadership continue to aggressively explore information technology (IT) BPR opportunities. On behalf of the RC GOSC, the Project completed a preliminary, macro-level study identifying organizational, operational, and technical considerations, challenges, impacts, and issues associated with migrating ARNG and USAR to a centralized, RC enterprise IT management solution. The study was an initial BPR step, identifying several enterprise IT management improvement opportunities applicable to RCAS sustainment (life cycle support). One opportunity currently being pursued is centralized management of router maintenance throughout the RC.

- Analysis of Alternatives: RCAS alternatives were examined during the Project's restructure in 1995. During the restructure, benchmarking, modeling, trade-off analyses, and user expectation management techniques were utilized to derive low, medium,

and high-risk alternatives. The RCAS Validation Assessment Team (VAT) developed a technical and economic analysis model, based on DoD's Software Reengineering Assessment Handbook, to assess each alternative's coverage of required RCAS functionality. In addition, the VAT determined the viability and costs of each alternative primarily through a study of Government and industry standards. The costs of these alternatives were then proposed by the Prime Contractor, evaluated and negotiated by the RCAS Project Management Office (PMO), validated by the Army's Cost and Economic Analysis Center (CEAC), and ultimately used by the Army's senior leadership to decide on a solution representing an acceptable level of risk while effectively balancing user requirements against fiscal realities.

- Economic Analysis: The RCAS Project possesses an EA strategy that focuses on: (1) periodic updates to the Project's life cycle cost estimate (LCCE) for each MS review, (2) updating the expected return on investment (ROI) of each increment prior to its MS review (i.e., fielding decision), and (3) periodically estimating the actual ROI of the "total" system. This strategy was developed in coordination with the Office of the Secretary of Defense (Program Analysis and Evaluation) (OSD(PA&E)) and CEAC, and includes appropriate, periodic reviews by these organizations. More importantly, this strategy allows the Project to ascertain the (1) quantitative and qualitative benefits of each increment prior to its fielding, and (2) maturing benefits of past increments such that the RCAS community can clearly tie each increment's expectations and benefits to key mission performance measures (e.g., improvements in readiness and mobilization), and gain visibility into the synergy created by all RCAS applications.
- Performance Measurement: Results-based (i.e., mission-oriented) RCAS performance objectives and thresholds are identified in the OCD, Acquisition Program Baseline (APB), Critical Operational Issues and Criteria (COIC), Test and Evaluation Master Plan (TEMP), and Prime Contractor's system and sub-system specifications. These performance goals address such considerations as response times, access times, logistics response, security, interoperability, and reliability. Progress against these performance goals is evaluated principally through the RCAS EA Strategy and the Project's Operational Testing (OT).

- Information Assurance: RCAS consists of two separate subsystems, classified and unclassified, that are accredited and certified for operation. RCAS is based on the standards in the Joint Technical Architecture-Army, Version 6.0. By following these

comprehensive technical standards, required for Army and Joint interoperability, RCAS is positioned to be a secure, interoperable network under the DoD Global Information Grid (GIG) concept and the IA functions in the RCAS architecture are consistent with the security and architecture section of the RCAS C4ISP.

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

Increment 1 provided 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 the Global Command and Control System (GCCS) is fielded. Subsequent releases, 2.1 and 2.1.1 provided COTS upgrades, additional logistics functionality, and Y2K upgrades and hot-fixes. This increment also addressed initial software encryption requirements.

Increment 3 introduced force authorization, training, and human resources functionality. These functional areas include both new development and hosting GOTS software on the RCAS. Increment 3 also provides for transition to an ORACLE database management system, and an upgrade to the infrastructure via COTS products (e.g., Outlook 98, Internet Explorer 5.0, Project 98, and Jetform 5.1). This increment also addressed the second phase of the software encryption requirements.
Increment 4 / 5 will add occupational health management, training, force authorization enhancements, and additional human resources functionality and approved COTS software upgrades, such as, Internet Explorer, Adobe Acrobat Reader, McAfee (Net Shield, VirusScan), NT Service Packs and hot-fixes, Norton Anti-Virus, JetForm 5.2, etc.

Future Increments (6-8) will satisfy user requirements in the order of priority established by the ARNG and USAR RCB. The current proposal is:

- Increment 6 will add safety and additional occupational health management, force authorization, and human resources;
- Increment 7 will add occupational health management, mobilization planning (logistics and training), force management, and civilian personnel functionality; and
- Increment 8 will add remaining mobilization, force management, safety and occupational health management, military and civilian personnel functionality and GOTS hosting (GCSS-Army and TC-AIMS II). With the completion of Increment 8, the essential mobilization planning data will reside in the RCAS integrated database.

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.

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 manages 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 IIIc decision with an Acquisition Decision Memorandum (ADM) signed on 2 May 2000, and is currently pending receipt of a Milestone IIId ADM in July 2001.

The Project utilizes a mature Earned Value Management System (formerly C/SCSC) to manage cost, schedule and technical performance and risks. In addition, the Project has a comprehensive metrics program and a risk management program that are integrated with the earned value reporting into monthly Program Management Reviews (PMR). The RCAS PMO and Prime Contractor have established a robust metrics program. The metrics program focuses on three levels, (1) Project, (2) Process, and (3) Event. Metric data is gathered for specific measures and automated tools are used to facilitate the assessment of progress and performance. The results of this modeling and analysis drive management decision-making.

C. Contract Information:

Reserve Component Automation System
Science Applications International Corporation (SAIC) Information Service Sector , 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 migrating in FY01 to CPAF
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 were utilized for software development to allow flexibility and open competition. With maturity in requirements and estimating capabilities, software development is now occurring under the CPAF portion of the contract. This change also decreases government risk inherent in T&M techniques. 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 APB and the contractor's system and sub-system specifications address such considerations as response times, access times, support response, security and reliability. Beyond effectively allocating risk between the Government and the Prime Contractor, the RCAS prime contract places a greater degree of emphasis on CPAF than the original prime contract. This emphasis is designed to provide the contractor with incentive to produce reliable, supportable products and to facilitate the stringent monitoring and management of the Prime Contractor's cost and schedule performance, as well as give the Project greater latitude with respect to contract re-competition.

D. Architecture and Infrastructure Standards:

The RCAS architecture is designed to be consistent with Joint Technical Architecture – Army (JTA-A). Given the significant cost to migrate RCAS to DII COE Level 5 compliance, and the change in mandate for the use of the COE in the JTA-A, Version 6, the Project has submitted a waiver to remain at the current level of compliance (Level 3). In addition, Defense Messaging System (DMS)

compliance is considered as a criterion in all design analyses and product selections. The RCAS has an approved JTA-A migration plan. Part I was approved on 4 June 1996 and part II was approved on 5 December 1997.

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 Army National Guard and the Army Reserve are providing the remaining 10,000. All other hardware is being procured with RCAS project funding. RCAS hardware and software components are procured through the contract and 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 RCAS teamed with the National Guard Distributive Training Technology Project (DTTP) to migrate Army National Guard State Commands to an Asynchronous Transfer Mode (ATM) backbone. The two programs are maximizing the synergistic benefits of this arrangement and realizing economies of scale associated with circuit cost and usage ratios.

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 3) new development, only if no GOTS or COTS are available to fulfill the requirements.

E. Program Highlights:

- Project achieved a successful Milestone IIIc decision in March 2000 authorizing full fielding of Increment 3.
- First project to achieve DoD CIO Certification in accordance with Section 8121(b), FY00 Defense Appropriations Act, certifying RCAS Milestone IIIc, Increment 3, as compliant with Clinger-Cohen Act of 1996.

- Received System Security Re-Accreditation.
- RCAS certified as Year 2000 compliant and successfully transitioned through the year 2000 and leap year crossover dates.
- Fielded Increment 3 adding force authorization, training, and human resources software functionality.
- Increment 1 Infrastructure fielding involving 94 commands, 57,878 workstations, and 3,849 sites, completed Mar 01, 18 months ahead of schedule.
- Delivered over 60% of the 60,065 planned function points to date, 23% of which results from deployment of Office Automation, with balance of functionality to be delivered in Increments 4/5, 6, 7, and 8.
- FY 2001 activities include an Increment 4/5 Milestone (MS) Decision Review (MS IIId); completion of Increment 6 development, testing, and technical acceptance in preparation for a MS IIIe Decision Review; and requirements analysis and software development of Increment 7 and 8 functionality and approved upgrades to the product baseline. The Project is currently pending receipt of its MS IIId ADM and DOD CIO Re-certification in July 2001.
- FY 2002 will focus on fielding Increment 6; completing Increment 7 and 8 development; and Increment 7 testing, technical acceptance, a MS IIIf fielding decision, and deployment to the field.
- FY 2003 will focus on Increment 8 testing, technical acceptance, a MS IIIg fielding decision, and deployment to the field as well as transitioning the acquisition to the sustainment phase.

F. Financial Basis for Selecting the Project:

	Dollars in Millions						
	Sunk Costs	**FY 00**	**FY 01**	**FY 02**			
APB Total Resources by FY	718.8	191.0	240.3	225.8			
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 IIId Review April 2001. 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 IIId Review, was approved February 2001.

An Economic Analysis (EA) was performed for MS II and MS III. In addition, the Project estimates each increment's "expected" Return on Investment (ROI) prior to its MS fielding decision, and periodically updates the MS III EA with the total system's "realized" and "expected" costs and benefits. The results of these economic analyses are displayed in the table below.

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Economic Analyses (P V in $ M)					
Activity	**Date**	**Scope**	**Investment**	**Benefits**	**R O I**
MS IIIa	August 1996	Total System [E]	549.2	3728.6	6.8 : 1
MS IIIb	January 1998	System Infrastructure [R/E]	198.3	2418.0	12.2 : 1
MS IIIc	December 1999	Increment 3 [E]	42.3	190.1	4.5 : 1
MS IIId	February 2001	Increment 4/5 [E]	8.4	50.0	5.9 : 1
MS IIId	February 2001	Total System [R/E]	653.7	3236.8	5.0 : 1

E = Expected R = Realized PV = Present Value

The Total System has an ROI of 5.0:1 and the system infrastructure (Increment 1) has an ROI of 12.2:1. The benefits include productivity improvements enabled by the use of automation, cost savings due to lower transmission and communication costs, and legacy system maintenance cost avoidance. 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 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. Assessment:

A. Description of Performance based system(s): 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, allows for early detection of variances. These processes, combined with a flexible contract vehicle, provide maximum early response and corrective actions.

	Cum total FY1999 and prior	FY2000	FY2001	FY2002			
B. Previous Baseline:							
Cost Goals ($M)	585.7	102.2	110.7	113.1			
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)	588.6	102.0	111.3	112.5			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	588.4	102.3	118.4	113.1			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	-0.2	0.3	7.1	0.6			
Schedule Goals (months)							

Baseline Information: The acquisition program baseline (APB) was established and approved in July 1996 and remains valid as updated for Milestone IIIb, November 1997, Milestone IIIc, December 1999, and Milestone IIId, April 2001. The costs denoted are the total funds necessary to satisfy RCAS Increments 1 through 8 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.

F. Corrective Actions: Not applicable

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.

Baseline (Milestone) Schedule	FY01 President's Budget (Month Year)		FY02 President's Budget (Month Year)
	Approved	Achieved	Approved/Estimated
Milestone 0	4th Quarter, FY87	Jul 87	
Milestone I	4th Quarter, FY89	Sep 89	
Milestone II	1st Quarter, FY91	Nov 91	
Red Team Assessment		Feb 95	
Validation Assessment Team Review		Apr-Jul 95	
Contract Restructure		Jan 96	

Milestone IIIa (Increment 1)		Sep 96	
Milestone IIIb (Increment 2)	Sep 97	Jan 98	
Milestone IIIc (Increment 3)	Oct 99 [1,2,3,4]	Mar 00 [1,2,3,4]	
Milestone IIId (Increment 4/5)	4th Quarter, FY99[3,5]		Jul 01 [6, 7]
Milestone IIIe (Increment 6)	4th Quarter, FY00[5]		4th Quarter, FY01
Milestone IIIf (Increment 7)	4th Quarter, FY01[5]		4th Quarter, FY02
Milestone IIIg (Increment 8)	4th Quarter, FY02[5]		2nd Quarter, FY03[7, 8]

Explanation for Changes in Schedule:

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. In conjunction with 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.

4. During the Milestone IIIc review in December 1999, the IT OIPT required additional test data analysis on Force Authorization and Commander's Clipboard functional software applications. On 23 March 2000, the results of the additional testing were briefed to the IT OIPT representatives and based on the favorable test results, the IT OIPT approved full fielding of Increment 3.

5. Representatives from the IT OIPT completed a review of the Project's current acquisition strategy, the need to adjust the present milestone schedule, and the RCAS proposed acquisition strategy and increment schedule. In light of the remaining schedule and required functionality, the IIPT approved the consolidation of Increments 4 and 5 and the proposed acquisition strategy and schedule.

6. In conjunction with the June 2000 IIPT, Increments 4 and 5 were consolidated into one increment to reduce schedule conflicts created by Y2K compliance efforts, Increment 3 testing issues, and DoD Chief Information Officer (CIO) Certification. In addition, consolidating these increments improved the timing of remaining milestone reviews, reduced deployment challenges (i.e., deployment of one major release versus two releases over a short period of time), created Project efficiencies (e.g., testing), and maximized the continued focus on software development and product delivery. The baseline schedule for the consolidated Increment 4/5 Fielding Decision (MS IIId) was modified from 3rd Quarter, FY00 to 1st Quarter, FY01. With this consolidation, the remaining increments (6, 7, and 8) become associated with MS IIIe, MS IIIf, and MS IIIg, respectively. The IIPT approved this modification.

7. To accommodate the Army Technical Evaluation Command's operational test of Increment 4/5, the Increment 4/5 Fielding Decision (MSIIId) was modified from 1st Quarter, FY01 to 2nd Quarter, FY01. Due to IIPT membership availability and resolution of RC sustainment funding issues, the Increment 4/5 Fielding Decision was delayed to July 2001.

8. In an effort to maximize the delivery of RCAS functionality (based on direction from the RCAS Requirements Control Board (RCB)), Increment 8 will include developed functionality that requires testing and fielding in FY03. To accommodate Operational Testing (OT), MS IIIg will move from 4th Qtr, FY02 to 2nd Qtr, FY03.

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 maximum early response and corrective actions. The total contract cost and schedule performance, cumulative from restructure through April 2001, reflects a variance of 7% and 0% respectively. The Project continues to remain within established cost and schedule thresholds. The positive cost variance has been redistributed and enabled the Project to address additional prioritized requirements.

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1640/ RESERVE COMPONENT AUTOMATION SYSTEM –IT Major Program

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Description Information:

Initiative Name and Acronym: Standard Installation/Division Personnel System (SIDPERS-3)
Initiative Number: 1783 IT Registration System Number (Section 8121, FY 2000 DoD Appropriation): DA00172

Executive Agent for this Major Initiative: Army
Program Activity/Mission Area: Functional Area Applications Area/Military Personnel and Readiness
Date Project was initiated: FY82
Date of Last Acquisition Decision Memorandum (ADM): 15 Oct 98
Project is in III Milestone, Approval Dated: 15 Oct 1998, Production and Deployment Phase as of current review.
Project Status: New ☐ Ongoing ☒

Information Technology Project or National Security System: Yes

Is this project a financial management or Mixed Financial System? Yes If yes, what percentage is financial 10%, for your component.

Percentage of system supporting Information Assurance activities: 5%

Projected Date for Completion: 30 September 2001
Mission Critical Status: Yes

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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 FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
Total Dev Mod							
Full Acquisition							
OPA	42.5	5.5	6.8	4.9			
OMA	86.3	14.9	0.0	0.0			
RDTE	0.0	0.0	9.2	8.6			
Total Dev Mod	128.8	20.4	16.0	13.5			
Current Services/Maintenance							
OMA	45.4	1.2	1.6	1.1			
MPA	.2	.2	.3	.3			
Total Current Services	45.6	1.4	1.9	1.4			
Total Resources by FY	**174.4**	**21.8**	**17.9**	**14.9**			

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Part II. Justification:

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 provides commanders and staff the necessary personnel information to make informed decisions regarding military personnel resources. SIDPERS-3 serves the Active Army during peacetime and all components, Active, National Guard and Army Reserve during mobilization and war. The system supports modernization of the force and provides 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 interfaces with the Defense Joint Military Pay System (DJMS), The Army Authorization Document System-Redesign (TAADS-R), Theater Army Medical Management Information System (TAMMIS), the Reception Battalion Automated Support System (RECBASS) and the Total Army Personnel Data Base (TAPDB). On 1 Oct 1999, Electronic Data Systems (EDS) assumed responsibility for sustainment and enhancement of 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 the cornerstone of a more reliable and responsive automated personnel information system in support of basic Army missions.

The business process was reviewed by PERSCOM during development in the 1980s. SIDPERS-3 replaces 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 HQDA Deputy Chief of Staff for Personnel (DCSPER). The Product 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 oversight responsibility of the SIDPERS-3 project to the Army (5 May 1999). 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.

The SIDPERS-3 acquisition will conclude in FY 2001 and the system will transition into the operations and sustainment phase of its system life cycle. As a result of this transition and the completion of the SIDPERS-3 acquisition, formal reporting of SIDPERS-3 concludes with this IT Capital Investment Exhibit submission.

C. Contract Information:

Contract names; prime contractor:
Hardware: SIDPERS-3 purchases hardware from one contract. The STAMIS Computer Contract II (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 have primary responsibility to maintain and enhance 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 definition, 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 Information Infrastructure suite. Although still primarily character based, Graphical User Interface technology will be used as it becomes available from the developers. SIDPERS-3 complies with JTA with exception of the Graphical User Interface. System Security Accreditation granted in July 1999 for a 3-year duration.

Infrastructure Strategy:

- PM SIDPERS-3 procures all SIDPERS-3 hardware requirements.
- Transport: PM SIDPERS-3 satisfies transport requirements by using existing Army infrastructure.

- 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) assumed responsibility for SIDPERS-3 maintenance and enhancement, replacing the Software Development Center-Washington (SDC-W). System support 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 with 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.

- On 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).
- On 02 Aug 00, SIDPERS-3 released Software Change Package (SCP) 04-07-00 to modify promotion and skill qualification data, to improve personnel operations functionality, and improve strength management and personnel accountability.
- During FY 01, SIDPERS-3 will continue to update with Software Change Packages (SCP) and will define the objective SIDPERS-3 PERPAY architecture and operating environment.
- During FY02, SIDPERS-3 will continue enhancing its objective operating environment and implement SIDPERS-3 PERPAY modules to move the Army toward the joint DIMHRS personnel system.

F. Financial Basis for Selecting the Project:

	Dollars in Millions						
	Sunk Costs	**FY 00**	**FY 01**	**FY 02**			
APB Total Resources by FY	206.4	12.3	12.2	14.0			
Rebaseline Total Resources by FY	174.4	21.8	17.9	14.9			

Part III. Assessment:

A. Description of Performance based system(s):

Baseline Information: FY 82, Rebaseline FY 00

	Cum total FY1999 and prior	FY2000	FY2001	FY2002			
B. Previous Balance:							
Cost Goals ($M)	174.2	13.9	14.5	12.1			
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)	174.2	13.9	17.7	11.9			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	174.4	21.8	17.9	14.9			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	0.2	7.9	0.2	3.0			
Schedule Goals (months)							

- Rebaselined since initial program establishment: SIDPERS-3 was rebaselined 25 September 1998.
- Slippages since the FY01 President's Budget: None.

- Variance from FY01 President's Budget: FY02 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 Budget (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

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Description Information:

Initiative Name and Acronym: Transportation Coordinators' Automated Information for Movement System II (TC-AIMS II)
Initiative Number: 1935 IT Registration System Number (Section 8121, FY2000 DoD Appropriation): DA00555

Executive Agent for this Major Initiative: Army
Project Activity/Mission Area: Logistics
Date Program 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 Phase as of current review.

Project Status: New ☐ Ongoing ☒

Information Technology Project or National Security System: IT

Is this project a financial management or Mixed Financial System? No

Percentage of System supporting Information Assurance Activities: TC-AIMS II is being developed to ensure Defense Information Infrastructure/Common Operating Environment (DII/COE) and Command and Control (C^2) compliance

Projected Date for Completion: 4th Qtr, FY07
Mission Critical Status: No

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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						
	Cumulative Total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
Total Dev Mod	0.0	0.0	0.0	0.0			
Full Acquisition							
OMA	41.5	18.6	0.0	0.0			
OPA	9.4	20.8	11.7	25.5			
RDTE	0.0	0.0	8.0	9.9			
Total Dev Mod	50.9	39.4	19.7	35.4			
Current Services/Maintenance							
OMA	9.2	9.7	7.4	7.6			
MPA	0.2	0.1	0.1	0.1			
Total Current Services	9.4	9.8	7.5	7.7			
Total Resources by FY	**60.3**	**49.2**	**27.2**	**43.1**			

Part II. Justification:

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 software applications designed for easy data retrieval and data exchange and connectivity to relevant external sources. It will also support a common hardware suite of equipment for the Army. The other Services have retained the authority to equip their organizations by procuring their COTS through either Service-specific or DoD-wide indefinite delivery, indefinite quantity (IDIQ) contracts. 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 In-transit Visibility (ITV) capability.

TC-AIMS II supports defense guidance to develop and implement support systems that 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 and 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 Lead Service 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 (OIPT) review in December 1996. In June 1997, the JTCC declared the 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. The Joint Configuration Management Board (CMB) chaired by the USTRANSCOM J3/4 approved the baseline functional requirements in January 1998 and approved the PM TC-AIMS II strategy for developing a core capability for initial operating capability (IOC) with the remaining baseline requirements as a Pre-Planned Product Improvement (P3I). A subsequent strategy to deliver the system in three increments plus the P3I was approved by the CMB in November 1998. The Joint Requirements Oversight Council (JROC) approved the Operational Requirements Document (ORD) in March 1999. In June 2000, the CMB approved a new strategy that would divide the remaining TC-AIMS II functionality into even smaller incremental development packages that would commence after the delivery of the Unit Movement module.

The JPMO and the PEO STAMIS Staff are working with the DISC4 and OSD to prepare the documentation required for Section 8121 Certification. The following information is contained in the initial draft 8121 Certification Report.

- Business Process Reengineering (BPR): TC-AIMS II resulted from a major business process reengineering effort by the US Transportation Command (US TRANSCOM) in 1994/95. This effort was initiated in response to a 1993 Secretary of Defense Memorandum calling for improvements in the efficiency and effectiveness of the DTS through application of functional process improvement and central control of transportation-related systems development. At the TC-AIMS II project level, business process re-engineering has also been aggressively pursued. To manage Joint Service requirements the DoD established a Joint Requirements Office, which serves as the central clearing house, tasked to provide clear, well thought out, validated, prioritized Service-unique and Joint requirements.
- Analysis of Alternatives: The JTCC assessed the detailed functional, technical and programmatic capabilities of 149 transportation and transportation-related automated information systems. Of those, 64 were identified for elimination; the remaining 58 systems were evaluated to identify migration systems (systems that would continue to be used, with or without modifications) that could eliminate unnecessary duplication among individual Service systems, while increasing or that could be developed to provide Joint systems that retained Service-unique system functionalities. Twenty-three were selected as "migration systems"; of these five were evaluated specifically for Unit Move and ITO/TMO functions. The systems selected for continuation/development were to provide cost effective solutions and improve functional processes/capabilities, while simultaneously ensuring the outcome supported the DoD strategic and logistics plans. The long-range focus of the JTCC migration effort was to build toward the future to support the DoD strategic, logistics, and action plans. The methodology, analysis and results of the JTCC study were documented in an Integrated Decision Paper for Unit Movement (1 February 1995, revised 14 April 1995) prepared by the JTCC and DISA. The selection of a migration system was based on functional, technical and programmatic considerations as outlined in the JTCC Methodology for Development of Integrated Decision Papers. An extensive study was accomplished using user and developer questionnaires, and automated tools (such as the Defense Integration Support Tools and Architecture Design Analysis and Planning Tool). The System Evaluation and Estimation of Resources-Software Estimation Model (SEER-SEM) module was used to evaluate the costs to redesign, reuse, integrate and maintain software. The JTCC methodology identified three alternative solutions for satisfying the Unit Move functional baseline. Each alternative would build around a "core" legacy system, while adding the necessary hardware/software

components of the others. Each alternative was evaluated for functional, technical, programmatic and cost considerations. Based on their assessment, the IDP recommended that a new system, named TC-AIMS II, be built around the core US Marine Corps TC-AIMS/MDSS II system. This alternative provided the optimum solution considering the factors above, including cost. Significantly, the TC-AIMS II was not intended to be a wholly new developmental program, but rather a cost-effective solution to modify/enhance/improve an existing system, while integrating the "best of breed" functionalities from other legacy systems.

- Economic Analysis (EA): the primary motivation behind development of the TC-AIMS II system was not purely economic, although tangible economic benefits were identified in the assessment. The main thrust, however, was to develop a robust, efficient and effective transportation support system to meet the stringent worldwide deployment requirements of today's Armed Forces. While cost analyses played a role in the decision to implement the TC-AIMS II solution, operational necessity for critical wartime missions was a driving factor. Details regarding two analyses and one case study are provided below. Currently, there is not a formal, cost-based return on investment (ROI). The formal cost-based ROI will be completed as part of the EA prior to Milestone C. However, as identified earlier, the benefits of the TC-AIMS II go far beyond cost savings. This new automated system will provide significant improvement to mission performance and qualitative mission benefits.
  - DTS Economic Analysis: The initial cost analysis supporting the decision to migrate to the TC-AIMS II system was established in the Integrated Decision Paper for Unit Moves. Each of the alternative migration system solutions (see Analysis of Alternatives in paragraph 3) was costed and compared. The TC-AIMS II solution, in addition to being the technical/functional-preferred solution, was also the low cost alternative by $7M to $19 M over the competing alternatives.
  - Programmatic Life Cycle Cost Analysis: The detailed EA and cost estimates for the TC-AIMS II program are still under development. The Services are finalizing deployment locations, fine-tuning employment doctrines, and defining fielding and training strategies.
  - JTCC Business Case Study: A preliminary cost analysis was subsequently conducted in the January 1996 JTCC A Business Case Study for Transportation Systems Migration. While no specific ROI was developed, the JTCC concluded that implementation of the TC AIMS II system, coupled with elimination of legacy systems, would be beneficial to the Department.

- Performance measures:
  - Technical/Functional Performance: The TC-AIMS II automated information technology program has clearly defined, results-based, mission-oriented performance objectives. In accordance with the acquisition principles defined in the DoD Directives 5000.1/2-R, the user community initially developed a Mission Needs Statement (MNS), which was approved by the Joint Staff on 7 August 1997. Subsequently a detailed and specific ORD, dated March 1999, was developed that clearly defines:
    - Required operational capabilities
    - Operational and support concepts
    - Shortcomings of the existing systems
    - Concept of employment and tactical applications
    - Mission performance objectives
    - Key Performance Parameters (KPP)
  - Linkage to DoD Strategic Goals and Objectives: As specified in the ORD, and approved by the JROC, the TC-AIMS II system directly supports both DoD Mission Areas and Defense Planning Guidance. The program's core/primary functions directly support the DoD Strategic Plan, the Army Strategic Plan and the Army Investment Strategy.
  - Program Management Performance: In addition to the requirements-driven functional performance measurement, the Joint Program Management Office provides comprehensive and overlapping performance-based acquisition management.
- Information Assurance Strategy Summary:
  - Version 3.01 of TC-AIMS II will be an unclassified system, accredited and certified to operate at the Evaluated Assurance Level 3. It will process Sensitive but Unclassified data; aggregation of data will not change the classification of data contained within or processed.
- The TC-AIMS II program will operate on hardware provided by the Services, based on configuration management guidance provided by the Joint Program Management Office. The TC-AIMS II client/server and standalone platforms run under Microsoft (MS) Windows NT 4.0 Operating System supporting a Sybase relational database. The TC-AIMS II application is designed to function within the security constraints of the Windows NT Operating System and Sybase database and does not circumvent their respective C2 controls.

- The TC-AIMS II application, and supporting hardware, will reside on top of existing LANs, and file transfers will be dependent on Service's infrastructure, using File Transfer Protocol (FTP), Simple Mail Transfer Protocol (SMTP) and floppy disk methods/protocols.
- The TC-AIMS II system's architecture will facilitate the isolation of resources to be protected, so that they are subject to the access control, auditing requirements, confidentiality and data integrity. TC-AIMS II application will use file access permissions to protect the applications against modification of code or data structures from external interference, which will be set during installation by the install script. TC-AIMS II executables and files will have their permissions set so as to protect them from internal tampering.

B. Program Management/Management Oversight:

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 PM, TC-AIMS II. PM, 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 new board select PM, Mr. Gary Winkler, is a civilian member of the Army's Acquisition Corps who is PM Level III certified. Mr. Winkler assumed the position in June 2001. 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 Manager. 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. 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.

C. Contract Information:

Initial development contractor was Defense Enterprise Integration Services (DEIS) II, UNISYS, Fairfax Virginia. A follow-on development contract was awarded to DynCorp (previously General Telephone Electronics (GTE)), Chantilly, Virginia, through the Department of Transportation (DoT) Information Technology Omnibus Procurement (ITOP) 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- (5) year task order with one- (1) year options. During FY 00 the task order was modified to restructure the Cost Plus Award Fee (CPAF) task order to incorporate cost plus incentive features. The restructure limited the government's maximum costs and creates incentives and penalties for cost below or above the target cost. Hardware procurement (except for Army) 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-the- shelf (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 include the Defense Information Infrastructure/Common Operating Environment (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 total obligation authority (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 database management systems (DBMS)).
- The JCS/J4 has determined that the accelerated deployment of TC-AIMS II is required to meet the Chairman, Joint Chiefs of Staff (CJCS) direction to rapidly implement a 72-hour Time Phased Force Deployment Document (TPFDD) standard. In order to meet

and support this requirement, the PM, TC-AIMS II is aggressively spearheading the software testing and evaluation that will lead to MDA approval in the form of a favorable MS C deployment decision.

E. Program Highlights:

- The TC-AIMS II CINC TRANSCOM-chaired CMB approved a plan to restructure the requirements delivery schedule into three releases in November 1998.
- On 4 December 1998, 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 on 7 December 1998. The Joint Program Management 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 in March 1999.
- 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 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, at the time, provided a program assessment to the DUSD (L&MR). Based on this assessment, the DUSD (L&MR) opined that the PO position should be upgraded to a board selected O-6 Project Manager (PM); the FY01 General Officer Steering Committee validated this decision. He also approved a restructuring of the program's functional oversight and a revised program strategy.
- Throughout FY00, the JPMO participated in each planning phase and provided the Services training as they prepared for Millennium Challenge exercise.
- Software Qualification Testing was completed during the month of May 00.
- In preparation for Milestone C, an Economic Analysis Development Plan and a preliminary Life Cycle Cost Estimate were delivered to the Services' Cost Center for evaluation and coordination in May 00.
- The European Prototype Site continued exercising early versions of the TC-AIMS II software to support major peacekeeping force rotations and provided valuable feedback to the development effort throughout FY00.
- FY00 saw the initiation of a Database Optimization Effort designed to make the current software more efficient and provide a foundation for further development. This effort will continue through FY01 as well.
- The board-select TC-AIMS II PM reported in June 2001.

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**			
APB Total Resources by FY	N/A	No	Approved	APB.			
Rebaseline Total Resources by FY	60.3	49.2	27.2	43.1			

***** Data shown in "Rebaseline Total Resources by FY" reflects current FY 02-07 POM funding. Other Service funds not included.

Details regarding the TC-AIMS II Cost/Benefit Analysis, the Analysis of Alternatives options are addressed in Part II, Section A. above.

Part III. Assessment:

A. Description of Performance based system(s):

Baseline Information: The Acquisition Baseline is under development.

Management Oversight

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.

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	Cum total FY 1999 And prior	FY 2000	FY 2001	FY 2002			
B. Previous Baseline:							
Cost Goals ($M)	39.4	18.5	24.6	22.8			
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)	60.3	49.5	26.0	43.0			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	60.3	49.2	27.2	43.1			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	0	-.3	1.2	.1			
Schedule Goals (months)							

FY00/01 variances are attributable to year of execution adjustments. Changes in FY06/07 reflect issuance of Program Budget Guidance.

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. Additionally, the

PM, TC-AIMS II and PEO STAMIS Business Management Directorate work with the Army functional proponent and the Program Evaluation Group to obtain sufficient funding to satisfy all JPMO and Army TC-AIMS II requirements.

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Schedule Goals:
Milestones

Baseline (Milestone) Schedule	Last President's Budget (Month Year)		Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Program Initiation		Jan 97	
Working Level OIPT		Jun 97	
MNS Approval		Aug 97	
ORD Approval		Mar 99	
Operational Prototype Evaluation CONUS Beta Site Operations 2d ACR Bosnia Re-deployment Joint Exercise Foal Eagle 99 Millennium Challenge 00		 Jul 98 Jul 98 Dec 99 Nov 00	
OIPT Review – 72-hour TPFDD Accelerated Implementation			2d Qtr, FY02
MS C Fielding Decision for "Early Deployers"			2d Qtr, FY02 (1)
MS C Incremental Development Packages 1-2			3d Qtr, FY02
MS C Incremental Development Packages 3-6			4th Qtr, FY03
MS C Incremental Development Package 7			4th Qtr, FY02/1st Qtr, FY07 (2)
MS C Incremental Development Package 8			3d Qtr, FY05
MS C Incremental Development Package 9			2d Qtr, FY04/1st Qtr, FY07 (2)
MS C Incremental Development Packages 10-12			4th Qtr, FY04/3d Qtr FY06 (2)

(1) Software complexity and size, contractor performance have extended the delivery of the first software release and a MS C Fielding Decision is now expected in the 2d Qtr, FY02.

(2) Multiple MS C Fielding Decisions are planned to facilitate the incremental release of functionality as it is completed.

Performance Goals:

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.
- TC-AIMS II must be reliable, available, and maintainable.
- 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 support mobility, deployability, and transportability.
- The TC-AIMS II should have no impact on the structure of the unit to which assigned.

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1935/TRANSPORTATION COORDINATORS' AUTOMATED INFORMATION FOR MOVEMENT SYSTEM II–IT Major Program

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Description Information:

Initiative Name and Acronym: Warfighters' Simulation
Initiative Number: 5047
Executive Agent for this Major Initiative: Army

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 II Milestone, Approval Dated: 20 June 1994, Engineering and Manufacturing Dev Phase as of current review.

Project Status: New ☐ Ongoing ☒

Information Technology Project: IT
Is this project a financial management system or Mixed Financial System? No
Percentage of System Supporting Information Assurance Activities: 0

Project Date for Completion: FOC is planned for FY 2006; however, WARSIM is planned to have annual software and hardware upgrades annually throughout its life cycle.
Mission Critical Status: No

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Part I. Summary of Spending for Project Stages:

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

	Dollars in Millions						
	Cumulative Total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002 (this is the Budget Year)**			
Planning							
RDTE	129.6	44.6	30.5	4.9			
Total Dev Mod	129.6	44.6	30.5	4.9			
Full Acquisition							
OPA	0	0	0	0			
Total Dev Mod	0	0	0	0			
Current Services/Maintenance							
OMA	0	0	0	4.2			
Total Current Service	0	0	0				
Total Resources by FY	**129.6**	**44.6**	**30.5**	**10.1**			

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Note: RDTE Funding on shared PE/Proj 654715 Projects D241 and D396 in FY01 and prior. FY02-07 RDTE PE 654742 Project D362. OPA funding is on shared line NA0103. OMA is in shared MDEP WCLS. Therefore, funding cannot be updated from PROBE or RDAISA.

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.

WARSIM 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 in 1998. 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 JSIMS program has perhaps the most far reaching implications. This initiative calls for participation of all Services and requires extensive coordination of performance requirements, schedules, and costs. In order to account for these impacts, the WARSIM and WARSIM Intelligence Module (WIM) contracts were 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 contractors 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.

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:

FY01 Accomplishments: The planned development activities were accomplished, including the integration of SW build 2 and continued development of SW build 3, and the co-development of the common component workstation for the JSIMS Alliance. WARSIM participated in JSIMS federate integration events. WARSIM also successfully conducted another Army Functional Assessment whereby subject matter expert user representatives evaluated completed software and provided feedback for requirements definition and clarification. FY 02 Planned Activities: Completion of spiral build 3, inclusion of software in the JSIMS release of Version 1.0, participate in Army Functional Assessment and performance evaluation in Nov 01, and demonstrate system operation with Exercise Prairie Warrior '02. FY03 Planned Activities: Completion of WARSIM software Version 1.0, IOTE, and Hardware IPR.

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 WARSIM Acquisition Program Baseline will be revised during FY01after approval of the revised JSIMS Acquisition Program Baseline. In the current APB, 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	**FY00**	**FY01**	**FY02**			
APB Total Resources by FY							
Total Resources by FY							

Part III. Assessment:

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.

The latest WARSIM Acquisition Strategy plans for continuous SW and hardware upgrades after "FOC" so the system can reflect latest operational concepts for training relevance and provide for technology insertion to the software and hardware, extending the life of the system. Therefore, the current and prior baselines below reflect only FOC funding requirements and the latest estimate include requirements post-FOC and incorporate all of the schedule and programmatic changes resulting from the JSIMS changes. These changes will be incorporated into a revised Acquisition Program Baseline, scheduled for approval in FY01.

Note: The schedule of the Acquisition Program Baseline (APB) approved in April 1998 was breached in April 01. A revised APB will be submitted for approval NLT Sep 01 per direction of MDA.

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	Cum total FY 1999 And prior	FY 2000	FY 2001	FY 2002			
B. Previous Baseline:							
Cost Goals ($M)	132.3	52.1	53.3	54.9			
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)	130.0	48.3	48.8	81.0			
Schedule Goals (months)							
D. Current Estimate:							
Cost Goals ($M)	129.6	59.4	47.5	74.5			
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)	(0.4)	11.1	(1.3)	(6.5)			
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 adjusted in Oct 1999 to 1QFY03 to retain synchronization with the JSIMS schedule.

The MDA is periodically briefed and the WARSIM program also has management oversight by an OIPT and also receives review within the JSIMS management oversight structure.

F. Corrective Actions:

Schedule Goals:
Milestones

Baseline (Milestone) Schedule	Last President's Budget (Month Year)		Current Submission (Month Year)
	Approved	Achieved	Approved/Estimated
Contract Award	Jun 96	Jun96	Jun 96
Complete Software Build I	Jun 99	Jun99	Jun 99
Complete Software Build II	Sep 00	Dec 00	Dec 00
Complete Software Build III	Dec 01		Mar 02
JSIMS Version 1.0 Release	Mar 02		Jun 02
Hardware IPR Decision	Mar 02		Oct 02
WARSIM Milestone III	Nov 02		Oct 03

The Acquisition Strategy is planned to provide for block upgrades following IOC, continuing throughout the life of WARSIM. The MDA has approved the concept for and criteria on which to base approval of hardware initial procurement in advance of Milestone approval.

Note: The schedule of the Acquisition Program Baseline (APB) approved in April 1998 was breached in April 01. A revised APB will be submitted for approval NLT Sep 01 per direction of MDA

Performance Goals:

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

Support Staff & Role Player Automation	66% reduction in support personnel overhead
Synthetic Natural Environment	Virtual environment and interactive targets
Spectrum of Opns & Threats	Operations Other than War
C4I Interface	Full integration with Army C4I equipment
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

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Description Information:

Initiative Name and Acronym: Wholesale Logistics Modernization Program (WLMP)
Initiative Number: 6298

Executive Agent for this Major Initiative: Army
Program Activity/Mission Area: Logistics Functional Area
Date Project was Initiated: 5 August 1997
Date of Last Acquisition Decision Memorandum (ADM):
Project is in Milestone, Approval Dated: , Phase as of current review.
Project Status: New☐ Ongoing ☒

Information Technology Project or National Security System: IT

Is this project a financial management or Mixed Financial System? No.

Percentage of System supporting Information Assurance Activities: 10%

Project Date for Completion: 28 December 2009
Mission Critical Status:

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Part I. Summary of Spending For Project Stages:
Project Name and Acronym: Wholesale Logistics Modernization Program (WLMP)
Project Activity/Mission Area: Logistics Functional Area

	Dollars in Millions						
	Cum total FY 1999 and prior	**FY 2000**	**FY 2001**	**FY 2002**			
Planning							
Full Acquisition							
Current Services/Maintenance							
AWCF Capital:							
SMA		25.6	28.3	17.1			
DM		6.9	9.6	5.9			
AWCF Operations		0	0	15.0			
OMA		3.0	4.8	6.9			
Total Resources by FY		**35.5**	**42.7**	**44.9**			

Part II: Justification

Background Leading to Wholesale Logistics Modernization Program (WLMP)

The U.S. Army's wholesale logistics management systems consists of the Commodity Command Standard System (CCSS), the Standard Depot System (SDS) and associated software systems. The business processes used at the wholesale level have not changed significantly in thirty years. These business processes and concomitant technologies support mass inventories and outdated business practices, instead of velocity management and focused logistics. The system, written mostly in COBOL 74 code, has evolved into a complex, tightly integrated system that is difficult to maintain and adapt for changing needs. The major weaknesses include lack of flexibility, slow unfocused reports, code and storage complexity, maintenance expense, sequential processing of transactions, and outmoded databases. While the corporate world has embraced supply chain management, the Army has remained immersed in a system predicated on obsolete business processes and technologies. For the soldier, the system is inflexible and generally unresponsive. For the Army, it is outdated and costly to maintain.

The U. S. Army Materiel Command (AMC) tasked the U. S. Army Communications-Electronics Command (CECOM) located in Fort Monmouth, NJ, to implement the Wholesale Logistics Modernization Program (WLMP). CECOM has formed a strategic alliance with Computer Sciences Corporation (CSC) for the modernization and sustainment of the Army's wholesale logistics business processes.

The Army is acquiring a service to modernize the Army's wholesale logistics management systems through the adoption of best commercial practices. The Defense Information Systems Agency (DISA) will provide data processing for the transferred legacy systems. The contractor will be responsible for providing the data processing services which enable the modernized services.

Current Government responsibility for support of the transferred systems will continue during a transition period. During this risk mitigation period, Computer Sciences Corporation (CSC) will work hand in hand with the Government to ensure a seamless transition. On July 1, 2000, responsibility for the transferred systems, within the context of the contractually stipulated performance requirements, became CSC's. On that date, the displaced Government employees at the Central Design Activities (CDAs) in St.

Louis, MO, and Chambersburg, PA, came off the Government rolls. All displaced Government employees were offered employment with CSC for comparable pay and benefits within the same geographic area for a minimum of 3 years.

The goal of the modernization effort is to reengineer the current wholesale logistics business processes, facilitated by the appropriate enabling information technology, to provide integrated, seamless, flexible information management services in support of the Army's wholesale logistics mission. Integral to the success of the modernization is a thorough business process reengineering (BPR) effort. The acquisition seeks a broad based commercial Enterprise Resource Planning (ERP) package to meet the performance requirements for the modernized services. The goal is not to just enhance the current process, but rather to employ creative solutions that best leverage commercial technological advantages; i.e., the modernized services will leverage the advantages of using commercial software with large customer bases. The intent is to achieve a functional architecture capable of meeting immediate business requirements, as well as having the flexibility to accommodate emerging requirements while evolving with the commercial marketplace. This will result in quantifiable improvements in materiel management, weapon systems management, customer service levels, and readiness. Key indicators of the WLMP's success will include reduced processing times and logistics business process improvements (e.g., optimization of inventory levels, total view of all supply chain information, cycle time reduction and reduced infrastructure requirements).

A. Description/Performance Characteristics:

WLMP is a business process re-engineering effort, to include outsourced supporting IT modernization via contractor services. This contract provides special purpose rights to the processes and supporting IT but the system will remain a contractor asset. The Army has acquired a service to modernize the Army's wholesale logistics business processes through the adoption of best commercial practices. The contractor is sustaining the current systems until the modernized services become available. The Army will not own the modernized services. The contractor provides the IT and data processing services which enable the modernized processes. The Army will not purchase IT resources (hardware and software) directly. The outsourcing of the software sustainment and modernization of Army's wholesale logistics business processes was a strategic decision based on an assessment of the marketplace and DoD strategic guidance. The acquisition of core services under this contract is being accomplished at current operating costs. From a strategic

perspective, the services being acquired are a mission area for which the private sector is best relied on without the need for Government ownership of equipment and facilities.

The WLMP supports DoD long term strategic goals and objectives. IAW the DoD Logistics Strategic Plan, the acquisition satisfies many of the Plan's key logistics management imperatives including the reengineering of business processes, the optimization of outsourcing, the reduction of logistics cycle and response times, the minimization of inventory levels, and the maximization of the advantages of acquisition reform. This will be accomplished while ensuring materiel readiness and force sustainment. Likewise, IAW The Army Strategic Plan, the acquisition capitalizes on efficiencies in business practices, increases private sector participation, and provides a logistics service that substitutes logistics velocity for logistics mass. Furthermore, the acquisition maximizes the effective use of scarce resources so that the Army can make the required warfighting modernization investments for the future. In consonance with what the Army Strategic Plan emphasizes for future efforts, this acquisition increases reliance on industry in non core functions and requires industry's total integration into logistics planning and execution. Ultimately, this Revolution in Business Affairs (RBA) and resultant Revolution in Military Logistics (RML) will be measured in the readiness of the Army and the combatants' forces ability to operate unencumbered by logistics. The logistics tail will be sufficiently small enough to be transparent to the user but still have the user's total confidence.

The contract is consistent with the upfront planning activities. Business process reengineering was central in the planning stage and is core to the contract. The acquisition seeks a broad based commercial Enterprise Resource Planning (ERP) package to meet the performance requirements for the modernized services. Business processes will be reengineered relative to the supply chain performance spectrum covered by this contract. This allows for the use, initially and continuously, of a robust and dynamic commercial service. The goal is not to just enhance the current business processes, but rather to employ creative "best of breed" commercial solutions that leverage commercial technological advantages; i.e., the modernized services will leverage the advantages of using commercial software with large customer bases. The intent is to achieve a functional architecture capable of meeting immediate business requirements, as well as having the flexibility to accommodate emerging requirements while evolving with the commercial marketplace.

A transition period successfully ran from 29 Dec 99 (contract award) to 30 Jun 00. During this period, the contractor and Government worked hand in hand to mitigate transition and transfer risks and ensure the uninterrupted flow of services. The successful transfer of software sustainment to the contractor occurred on 1 July 00, IAW the contract schedule. On this date and IAW with up front planning and the contractual requirement, displaced Government employees became contractor employees and received a "soft landing" package, i.e., all employees, who elected to, received a position with comparable pay and benefits, guaranteed for at least 3 years, in the same geographical location accompanied by a signing bonus of $15,000.

The WLMP employed an approach based not only on cost considerations, but on the strategic assessment of the marketplace, the current state of (and outlook for) commercially leveraged supply chain business solutions enabled by the appropriate information technology. The acquisition also stressed strategic guidance by outsourcing non core competencies, integrating the industrial base into our logistics business, and reengineering our business processes. WLMP leverages off of the commercial market through the selection of a broad based commercial solution in evidence in an Enterprise Resource Planning package with the long term intent to stay abreast of the marketplace and evolve with it.

The Performance Bonus metrics (discussed in Section C) in the contract will measure and report the business benefits of modernization to be achieved. The results of a cost/benefit analysis including return on investment (ROI); risks and any intangible (mission) returns that benefit the organization/mission were thoroughly analyzed by the Business Case, Wholesale Logistics Modernization Program, 12 February 1999.

B. Program Management/Management Oversight:

- Functional Proponent: Army Materiel Command (AMC).
- Program Manager: The Program Director is Paul Capelli. The Program Director answers to USACECOM, Deputy to the Commanding General.
- Contracting Office: U. S. Army Communications-Electronics Command, Acquisition Center.

- The WLMP is managed by the WLMP Program Office at USACECOM, Ft. Monmouth, NJ. An Operational Board of Directors (OBOD) and a Corporate Board of Directors (CBOD) have been established to oversee the WLMP. The CBOD, chaired by General Coburn, CG AMC, will provide strategic direction and course adjustment to the program. The CBOD is composed of senior logistics executives from the Army. The OBOD, chaired by AMC's Principal Deputy for Logistics, will approve and prioritize the operational and modernization content of the services provided. The OBOD is composed of senior logisticians from AMC. The WLMP Program Management Office (PMO), under the auspices of AMC, will manage and direct day-to-day operations of the WLMP. The PMO is responsible for program governance activities associated with the execution of the WLMP and reports to the OBOD. One of the critical keys to success in accomplishing the program goals involves partnering with industry Integrated Product Teams (IPTs) and supporting work groups and teams have been established to assist the PMO in modernization, sustainment and transfer activities. These entities include both "Team CSC" and Government representation. The Government's role in the IPT will be that of a "Smart Customer," i.e., defining our needs and evaluating results achieved by the Contractor.

- The Department of Defense Deputy Chief Information Officer (DCIO) from the office of ASD(C3I) exercises oversight in the context of the portfolio management of GCSS-Army as part of Tier 2 GCSS-Army.

The contract makes maximum use of empowered Government-Contractor IPTs. Within this structure, there are three major IPTs—the Management IPT, the Sustainment & Migration IPT, and the Modernization IPT. These are supported by numerous "working group" subordinate IPTs. The functioning of IPTs is central to contract performance. Within their areas they define needs, evaluate progress, monitor results, and report to the WLMP Program Director. The IPTs are based on mutual respect, teamwork, cooperation, and good faith performance. Each IPT has a work plan, schedule, defined work products, and performance standards against which performance can be evaluated quantitatively, potential problems and risks can be monitored, and actions taken immediately to keep performance on track. The Government's primary role in the IPT will be that of a "Smart Customer," i.e. defining our needs and evaluating results achieved by the Contractor.

C. Contract Information:

Contract: DAAB07-00-E252, Wholesale Logistics Modernization Program (WLMP) Prime Contractor: Computer Science Corporation (CSC), Corporate Office: Falls Church, Va., with offices at Moorestown, NJ. A task order based, ten-year, Indefinite Delivery type of contract was awarded on 29 December 1999 to Computer Sciences Corporation of Falls Church, VA. The contract contains both a Requirements portion (FAR 16.503) and an Indefinite-Quantity portion

(FAR 16.504). The contract provides for the issuance of task orders on both a Firm Fixed Price and Time and Materials basis. Provisions for earning performance bonuses are also included in the contract. The contract service performance goals are to provide the Army with an integrated end-to-end supply chain solution to improve overall synchronization of information. Significantly improving asset visibility, enhancing data accuracy/ integrity and reporting capabilities, and integrating financial management capabilities while ensuring least risk and disruption shall mainly achieve this. These services meet immediate business requirements, have the flexibility to accommodate emerging requirements for the long-term and optimize supply chain relationships.

The contract is performance based. Modernization solutions will be quantitatively assessed against existing commercial standards, when appropriate, in terms of cost, speed, productivity, and quality of outputs and outcomes. Substantive metrics currently exist in the contract, and will be used as an integral part of the acceptance criteria and the contract's Performance Bonus Plan. Additional metrics will be established to ensure a focus on superior performance as more becomes known of subsequently approved modernized solutions. Metrics will also be an integral part of continuous process improvement to ensure that the modernized services evolve with the market across all program areas. The Performance Bonus metrics in the contract will measure and report the business benefits of modernization against cost savings to be achieved. These metrics/improvements will include but will not be limited to the optimization of inventory levels, total view of all supply chain information, cycle time reductions, reduced infrastructure requirements as well as other quantifiable improvements in material management, personnel efficiency, customer service levels, optimum readiness postures, and the elimination of data redundancy and data inaccuracy. These metrics must be evident in process trial performance prior to fielding.

Metrics will always be based on industry standards, when appropriate. The Integrated Product Teams (IPT), with the Government as the final decision authority, will approve the use of additional industry standard metrics or the establishment of other metrics, when industry standard metrics are not appropriate. Contract Status Reporting, which will be an agenda item at each IPT meeting, will include reporting of metrics and the contractor's progress toward attaining quantified performance relative to the Contract Master Schedule. As stated above, meeting metric requirements will be incentivized through the use of the Performance Bonus Plan. These metrics will always take into account the Army's effectiveness and efficiency in supporting warfighter needs and the achievement of optimum readiness, when applicable.

D. Architecture and Infrastructure Standards:

This acquisition mandates an open, extensible solution, based on COTS products, which are compliant with Defense Information Infrastructure (DII) Common Operating Environment (COE) concepts. It requires the use of standardized DoD data elements for data sharing and systems interoperability. Data modeling activities, to include data element standardization, are compliant with Integrated Computer Aided Manufacturing Definition Functional Method (IDEF0) and Integrated Computer Aided Manufacturing Definition Functional Method Extended Data Method (IDEF1X). The contract requires that the modernized service complies with Joint Technical Architecture – Army (JTA-Army) mandates, Defense Information Infrastructure Common Operating Environment (DII COE) concepts, the AMC Information Systems Architecture (AMC ISA), and industry accepted best commercial practices for information technology, where appropriate.

The contract is for services and there are no new hardware requirements. It is compliant with JTA-Army Section 3, Information Transfer Standards. The services' long-haul communication network will have sufficient connectivity and reach to allow service access from U.S. and NATO military installations and/or activities worldwide; will extend from the data processing service provider's facility to the user site/installation point of presence (PoP), and will have sufficient transmission bandwidth and capacity to support the aggregate traffic load presented by the users. The Defense Information System Network (DISN) shall be employed to address these long-haul communication network. The existing user locations and their associated long-haul communication connections are

presented in Chapter 2 of the Technical Report on AMC Wholesale Logistics Systems Interfaces, TR No. AMSEL-IE-SP 98042. (In the event that the Contractor, in concert with the IPT, determines that the DISN long-haul communication infrastructure is not technically or economically feasible, the Army will seek to obtain a waiver from DISA for an exception to ASD (C3I) Memorandum, Subject: "Policy Clarification Letter - Long-Haul and Regional Telecommunications Systems and Services for the Department of Defense," which mandates the use of DISN.)

The goal for WLMP is to incorporate open commercial standards and industry accepted best commercial practices. A list of commercial best practices was identified during the Business Process Reengineering and Analysis phase, which ended in September 2000. A sampling of best practices includes the ability to track component/subcomponent manufacturing country of origin, alignment of strategic and business plans with long-term capacity and resource planning, customer access to online tracking of order status and shipping information, electronic transfer of shipment information to finance, and paperless production control.

Joint Technical Architecture— Army (JTA- Army) mandated and emerging commercial standards (i. e., standards likely to become mandates) in designing and developing the modernized services will be used by the contractor. The WLMP services' data will conform to the Information Modeling, Data Exchange, and Data Definition standards set forth at Section 4 of the JTA-Army to ensure data exchange interoperability. Use of standardized IDEF0 and IDEF1X modeling methods and DOD Data Element Definitions will facilitate interoperability. COTS applications, which are compliant with the COE software architecture will be used. If necessary, the Contractor will develop any unique application software required to permit COTS applications to interface with an Application Program Interface (API) that is Defense Information Infrastructure – Common Operating Environment (DII COE) compliant. In addition, the contractor will provide services to support other relevant logistics programs such as: Single Stock Fund (SSF), Global Combat Support System-Army (GCSS-Army), Defense Property Accountability System (DPAS), Defense Finance and Accounting Service (DFAS) systems, National Maintenance Management, Headquarters Application System (HAS), Joined Industrial Operations (JIO), Virtual Integrated Materiel Management Center (VIMMC), Army COMSEC Commodity Logistics Accounting and Information Management System (ACCLAIMS) and Joint Computer-Aided Acquisition and Logistics Support (JCALS). These services may include, but are not limited to: performing studies, analyzing impact, conducting tests, giving demonstrations, witnessing/observing

related activities, developing and implementing solutions, preparing reports and performing additional data processing services. Individual task orders will be issued to the Contractor for the performance of these services.

The acquisition seeks a broad based commercial Enterprise Resource Planning (ERP) package to meet the performance requirements for the modernized services. The goal is not to just enhance the current process, but rather to employ creative solutions that best leverage commercial technological advantages; i.e., the modernized services will leverage the advantages of using commercial software with large customer bases. The intent is to achieve a functional architecture capable of meeting immediate business requirements, as well as having the flexibility to accommodate emerging requirements while evolving with the commercial marketplace. If necessary, the Contractor will develop any unique application software required to permit COTS applications to interface with an Application Program Interface (API) that is Defense Information Infrastructure – Common Operating Environment (DII COE) compliant. Overall, however, software solutions will be selected and integrated such that absolutely a minimum amount of unique code development is necessary. The modernized services will be maintainable and upgraded such that they continue to operate at a technology and software release level currently supported by the software developer and used by an existing customer base external to the software developer and outside the Government.

E. Program Highlights:

- Contract award to Computer Sciences Corp (CSC) - 29 December 1999
- 6 month transition period completed 30 June 2000
- Software sustainment transferred to CSC 1 July 2000
- Displaced Government workers at Central Design Activities at St Louis, Mo. and Chambersburg, Pa. come off Government rolls and become employees of CSC on 1 July2000 with comparable pay and benefits for 3 years in the same geographic area plus a signing bonus of $15,000.
- Modernization of services schedule on track with Business Process Reengineering and Analysis Report. Completed on 19 September 2000.

F. Financial Basis for Selecting the Project:

- A Business Case and Economic Analysis was prepared, supporting acquisitions and business decisions leading to award.

The Army has acquired a service to modernize the Army's wholesale logistics business processes through the adoption of best commercial practices. The Contractor will sustain the current systems until the modernized services become available. The Army will not own the modernized services. The Contractor will be responsible for providing the IT and data processing services which enable the modernized processes. The Army will not purchase any IT resources (hardware/software) directly. The results of a cost/benefit analysis including return on investment (ROI); risks and any intangible (mission) returns that benefit the organization/mission were thoroughly analyzed by the Business Case, Wholesale Logistics Modernization Program, 12 February 1999, which is available upon request. The Business Case is supported by five Appendices. They are: Appendix A, Economic Analysis, Appendix B, Acquisition Strategy, Appendix C, Logistics Integration Agency Study, Appendix D, Background Research: Benefits From Supply Chain Management, Appendix E, Risk Analysis of Proposed Alternatives.

The Business Case, Appendix E " Risk Analysis of Proposed Alternatives" looked at the alternative solutions including the risks and costs for each alternative. See also Appendix A "Economic Analysis." The underlying assumptions for each alternative analyzed are also set forth in the Business Case and appendices thereto. The WLMP also has a Risk Management Plan for the Program which makes maximum use of the IPT structure.

Part III: Assessment:

A. Description of Performance based system(s):

Baseline Information: The WLMP was established in FY97. The Department of Defense Deputy Chief of Information Officer (DCIO) exercises oversight in the context of the GCSS-Army as part of Tier 2 GCSS-Army and a DCIO action officer is part of the IPT. A high-level oversight IPT structure has been formed including CBOD, chaired by the AMC Commander; an OBOD, chaired by the AMC PDL; and a Management IPT, chaired by the PM, WLMP. The Performance Bonus Plan is critical for achieving performance that exceeds acceptable levels. Acceptable performance is defined in accordance with the negotiated Contract Master Schedule and the associated acceptance criteria. The Performance Bonus Plan metrics have been structured such that if the contractor achieves a high level of performance, he will exceed the value for the metric based on a multiplier against its assigned weight and will be awarded accordingly. However, recognizing that there must be a balance between risk and reward, there are also Performance Penalties associated with not achieving specified minimum acceptable performance levels. Performance Bonuses are based on groupings of services and respective metrics. The areas are: Transfer and Migration Services,. Sustainment/Recurring Services, modernization Services, Data Processing and Time and Materials Bonus Plan. Each of these programmatic areas has groups of metrics within them.

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	Cum total FY 1999 and prior	FY 2000	FY 2001	FY 2002			
B. Previous Baseline:							
Cost Goals ($M)							
Schedule Goals (milestones)							
C. Baseline:							
Cost Goals ($M)							
Schedule Goals (months)							
D. Current Estimate:		35.5	42.7	44.9			
Cost Goals ($M)							
Schedule Goals (months)							
E. Variance from Baseline Goals:							
Cost Goals ($M)							
Schedule Goals (months)							

AMC's Corporate Strategic Technology Direction explicitly states, "To achieve the AMC Vision and Strategic Intent for Logistics Power Projection, AMC must update its current suite of logistics systems. As stated in the capabilities assessment (of AMC's Vision and Strategic Intent for Logistics Power Projection) CCSS, SDS, and other logistics supporting systems do not adequately support the AMC Vision, specifically, and the Strategic Intent". IAW with this strategic goal, the WLMP has outsourced the software sustainment of the Army's wholesale logistics business practices along with a contractual requirement to replace CCSS and SDS with a commercially leveraged business solution that will meet the goals of the Army now and evolve with the marketplace for continuous process and service improvements. Furthermore, IAW the DoD Logistics Strategic Plan, the proposed acquisition will satisfy many of the Plan's key logistics management imperatives including the reengineering of business processes, the optimization of outsourcing,

the reduction of logistics cycle and response times, the minimization of inventory levels, and the maximization of the advantages of acquisition reform. This will be accomplished while ensuring material readiness and force sustainment. Likewise, IAW The Army Strategic Plan, the proposed acquisition will capitalize on efficiencies in business practices, increase private sector participation, and provide a logistics system that substitutes logistics velocity for logistics mass. In addition, the acquisition will maximize the effective use of scarce resources so that the Army will be able to make the required warfighting modernization investments for the future. In consonance with what the Army Strategic Plan emphasizes for future efforts, this acquisition will increase reliance on industry in non core functions and require industry's total integration into logistics planning and execution. See also Part III, Performance Goals below.

A contract for the sustainment and modernization of the Army's wholesale logistics business practices was awarded to CSC on 29 December 1999. Transfer of software sustainment was accomplished on 1 July 2000 after a contractually stipulated 6 month transition period which served to mitigate risk and provide for the uninterrupted flow of services. The modernization timetable is on schedule.

F. Corrective actions:

The contract contains minimum acceptable schedule and performance requirements at a Firm Fixed Price and a Performance Bonus Plan (PBP). The PBP provides that performance penalties will be assessed if the Contractor fails to achieve a minimum target level for specific metrics. At this time, there are no corrective actions needed.

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

Performance Goals:

The mission goal is to modernize the Army's wholesale logistics business practices and supporting information technology to meet current and future military readiness requirements. System performance goals will be measured by metrics and incentivized by a Performance Bonus Plan which centers around the performance objectives related to Transfer and Migration services,. Sustainment/Recurring Services, Modernization Services, Data Processing, and Time and Materials Performance Bonus. At a macro level, key indicators of the services' success will include, but will not be limited to, uninterrupted flow of services, reduced processing times, logistics business process improvements (e.g., optimization of inventory levels, total view of all supply chain information, cycle time reduction and reduced infrastructure requirements) as well as other quantifiable improvements in material management, personnel efficiency, customer service levels, optimum readiness postures, and the elimination of data redundancy and data inaccuracy. Some of the benefits, that will accrue to Army, as a result of meeting the mission goal and achieving the key indicators of success for the modernized services follow:

- Improved Readiness
- Logistic Support to Warfighter improved through reduced cycle times/response times; improved supply availability; optimal use of inventory; more responsive to changing customer requirements
- Application of best practices and incorporation of commercial-off-the-shelf capabilities with enabling commercial information technology
- Integration with Single Stock Fund (SSF)/ National Maintenance Management(NMM)/ Global Combat Support System – Army (GCSS-Army) Retail - optimize implementation of SSF/NMM Business Rules

Accomplishments:

A significant milestone was reached on 1 July 2000 (IAW the Contract Master Schedule) when the 6 month transition period was completed and responsibility for software sustainment of the Army's wholesale logistics business practices was fully transferred to

CSC. In addition, on that date and IAW the Contract Master Schedule, the displaced Government employees, who elected to, came off the Government roles and became CSC assets. The modernization effort is on track, with the first deployment scheduled for June 2002.