September 1989

ADP BUDGET

Potential Reductions to the Department of the Army's Budget Request

GAO

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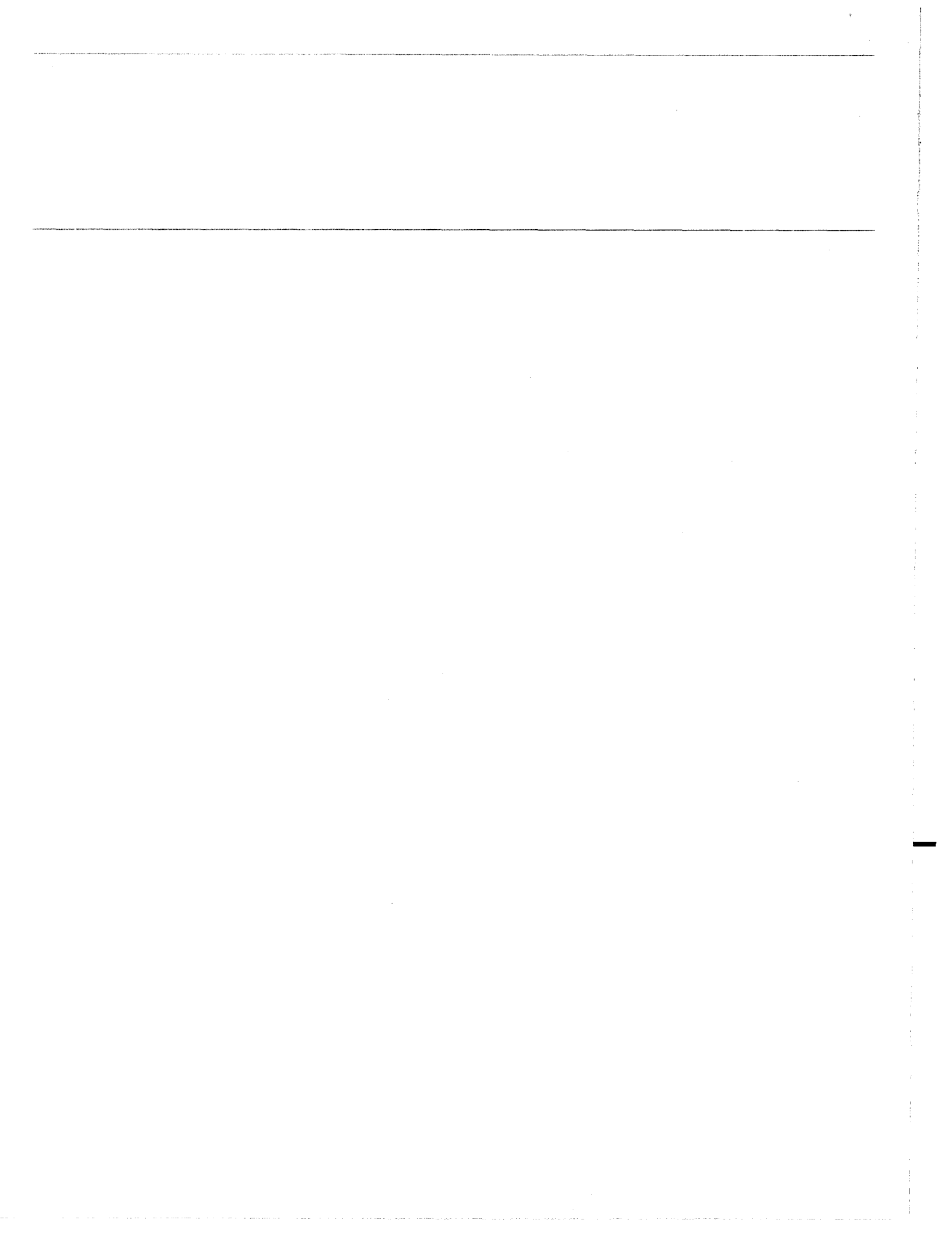
Information Management and
Technology Division

B-231233

September 18, 1989

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives

Dear Mr. Chairman:

On October 19, 1988, your predecessor asked that we assist the Subcommittee in evaluating the Department of Defense's fiscal year 1990 budget requests for automated data processing resources. In response to that request, this report documents and updates information we provided to your office in June and July, 1989, on five major automation programs managed by the Department of the Army. This information provides background, budget, and cost data for these programs and identifies funds requested for fiscal year 1990 that may be reduced or restricted from use contingent upon action to be taken by the Army. We are providing in separate reports to you similar information on selected automation programs managed by the Navy and Air Force.

Briefly, for the five major programs, we report that the Army has

- requested over $219 million in fiscal year 1990 funds to modernize or redesign 31 automated systems in its Standard Army Management Information Systems Modernization Program. Although the cost to initiate, design, develop, test, and install these systems is estimated to be over $2.8 billion, the program does not qualify for departmental level review because it is not a single major system (see app. I).
- requested $12.5 million in fiscal year 1990 funds for the Standard Installation/Division Personnel System-3, of which $10.2 million is planned for obligation under an already-awarded contract. However, the system has not yet been reviewed by the Major Automated Information System Review Council (MAISRC) of the Office of the Comptroller of the Department of Defense, as required by recent Defense appropriation acts. Therefore, the Committee may wish to restrict fiscal year 1990 funding until the Army obtains this review (see app. II).
- requested $8.2 million for the Information Processing Equipment Program, a new program for which the Army plans to award a requirements contract to update and replace its mainframe computers. Due to recent changes in program plans and slippage in the preparations for procurement, it is unlikely that the Army will be able to award contracts

in time to use the funds. Therefore, the Committee may wish to deny fiscal year 1990 funding for this program (see app. III).

- plans to obligate $71.4 million in fiscal year 1990 for the Army Accounting System (AAS). Although the Army describes it as a single accounting system, AAS is considered as eight subsystems for purposes of management and reporting. Only two of the subsystems were reported on information technology exhibits in the budget request to Congress, and MAISRC reviewed only one of them. The Committee may wish to appropriate funds for AAS with the provision that the Army obtain MAISRC review of the total system and report total obligations to Congress on the information technology exhibits (see app. IV).

- awarded a requirements contract for software analysis, design, and development for Army personnel systems. The vendor who won the $63 million contract had the highest technical score and proposed the second highest cost (see app. V).
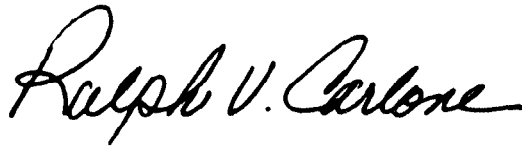
Our work was conducted in the Washington, D.C. area from February through August 1989. As requested by your office, we did not obtain official agency comments on this report. However, we discussed its contents with officials from the Department of Defense Office of the Inspector General, Office of the Comptroller of the Department of Defense, and the Office of the Assistant Secretary of the Army (Financial Management) and have incorporated their comments where appropriate. Details regarding the objectives, scope, and methodology of our work are described in appendix VI.

We are providing copies of this report to the Chairmen, House and Senate Committees on Appropriations; Chairmen, House and Senate Committees on Armed Services; Chairman, House Committee on Government Operations; Chairman, Senate Committee on Governmental Affairs; the Secretaries of Defense and the Army; and the Director, Office of Management and Budget. We also will make copies available to others upon request.

This review was performed under the direction of Samuel W. Bowlin, Director, Defense and Security Information Systems, who can be reached at (202) 275-4649. Other major contributors are listed in appendix VII.

Sincerely yours,

Ralph V. Carlone
Assistant Comptroller General

Contents

Abbreviations

AAS	Army Accounting System
ASIMS	Army Standard Information System
DOD	Department of Defense
DSS-W	Defense Supply Service-Washington
GAO	General Accounting Office
IBM	International Business Machines, Inc.
IMTEC	Information Management and Technology Division
MAISRC	Major Automated Information System Review Council
OSD	Office of the Secretary of Defense
SIDPERS-3	Standard Installation/Division Personnel System-3
STAMIS	Standard Army Management Information Systems
TAPSYS	Total Army Personnel Systems

Standard Army Management Information Systems Modernization Program

Background

The Standard Army Management Information Systems (STAMIS) Modernization Program includes the software for (1) the systems developed and/or maintained by the Information Systems Engineering Command, (2) systems running on the Army Standard Information Management System and (3) the Installation Support Modules developed at Fort Sill, Oklahoma. In its September 1988 STAMIS Modernization Program Implementation Plan, the Command identified 31 systems that were undergoing development or significant redesign. Based on costs, 7 of these 31 systems[1] qualify for review by the Major Automated Information System Review Council (MAISRC), which was created to provide structured oversight and prudent fiscal management in acquiring major automated information systems. The individual costs of the remaining 24 systems are too small to qualify for MAISRC review. Also, although the estimated cost from program initiation through implementation for improvements to these 31 systems is $2.8 billion, the overall effort does not qualify for MAISRC review because it is a program, not a single major system.

Program Costs and Budget Authority

For the 31 systems undergoing development or significant redesign, the Army obtained about $195 million in fiscal year 1989 funds and requested over $219 million in fiscal year 1990 funds. The following table shows the actual and estimated budget authority, as well as program cost by system. The dollar amounts shown here include funds appropriated or requested for operations and maintenance, other procurement, military pay, and Army Reserve accounts.

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[1] Army World Wide Military Command and Control Information System, Combat Service Support Control System, Department of the Army Movements Management System, Standard Army Retail Supply System, Standard Installation/Division Personnel System-3, Standard Finance System Redesign, and Unit Level Logistics System.

Table I.1: STAMIS Modernization Program Budget Authority and Estimated Program Cost

Dollars in millions

System	Budget Authority Fiscal Year 1989 (actual)	1990 (estimated)	Program Cost[a]
Army Commissary Automated System	$3.800	$4.100	$33.100
Army Civilian Personnel System	10.200	13.300	46.400
Army Food Management Information Service	4.800	3.900	37.000
Automated Resource and Planning Management Information System	.609	.609	1.900
Army World Wide Military Command and Control Information System	58.140	77.176	1,065.000
Claims Legal Automated System	8.000	.055	10.300
Combat Service Support Control System[b]	2.400	.850	225.000
Department of the Army Movements Management System	6.333	6.205	132.000
Integrated Facilities System-Micro/Mini	8.125	6.887	44.797
Legal Automation Army-Wide System	7.850	0	58.350
Military Police Management Information System[c]	1.813	3.890	24.000
Military Pay Redesign - Joint Service Software	5.520	21.934	42.563
Program Budget and Accounting System	8.862	10.118	53.576
Reserve Component Automated Pay System Support	1.969	.831	6.830
Standard Army Maintenance System Installation/Table of Distribution and Allowances	.980	.738	69.600
Standard Army Retail Supply System[d]	10.894	11.017	298.000
Standard Army Training System	2.900	1.200	18.000
Standard Installation/Division Personnel System-3[e]	7.400	12.500	147.900
Standard Finance System Redesign	22.910	25.262	37.427
Standard Army Civilian Pay System-Redesign	6.426	4.453	36.969
Standard Army Financial Inventory Accounting Reporting System Modernization	2.666	1.795	8.986
Standard Property Book System-Redesign	.843	.762	51.500
Short Tour Pay System	.142	.020	.650
The Army Authorization Document System Redesign	1.584	1.830	26.400
Transportation Coordinator Automated Command and Control Information System	3.390	2.470	21.200
Unit Level Logistics System	6.220	7.274	215.000
Totals	**$194.776**	**$219.176**	**$2,812.448**

[a]Program cost covers program initiation through implementation for a system. Program costs of $25 million or more in one year or $100 million total are criteria that make a system subject to MAISRC

review. A system of special interest to the Office of the Secretary of Defense is also subject to MAISRC review.

[b]The program cost is being recalculated due to changes in requirements for ruggedized hardware.

[c]This is a summary of six small Military Police systems.

[d]The economic analysis for milestone I, the concept development phase, of this system is being validated. The Army stated that it will forward the analysis to the Office of the Secretary of Defense after validation.

[e]In August 1989, Army officials told us they included some costs of hardware that should not have been included and omitted other costs of hardware for this system. They also told us the program costs will be finalized after they complete a new economic analysis.

Standard Installation/Division Personnel System-3

Background

The Standard Installation/Division Personnel System-3 (SIDPERS-3) is a redesign of the Army's existing military personnel systems that perform personnel accounting and keep records for active Army, Reserves and National Guard. The system will also support full mobilization and war-time requirements. The Army estimates a program cost of about $148 million for the system and a life cycle cost of $1.6 billion.[1] It obtained $7.5 million for SIDPERS-3 in fiscal year 1989 funds and has requested $12.5 million in fiscal year 1990 funds for the system.

For the past few years, Defense appropriations acts have prohibited the obligation of funds for major automated information systems that have not successfully completed the oversight reviews required by Defense regulations. In the Department of Defense Directive 7920.1 of June 1988, "Life Cycle Management of Automated Systems", the Deputy Secretary of Defense assigned responsibility for compliance with these acts to the head of each defense component.

Areas of Concern

In April 1989, the Deputy Comptroller (Information Resources Management), Office of the Comptroller of the Department of Defense (DOD), identified SIDPERS-3 as a major automated information system subject to review by the Major Automated Information System Review Council (MAISRC). The review of milestone II, the development phase, for the system is tentatively scheduled for March 1990. Although it lacks an accepted economic analysis, a pre-requisite for obtaining MAISRC approval, the Army signed a 5-year contract in April 1989 to have software designed and developed for the system. The contract provides for the obligation of over $5.5 million during fiscal year 1989 and more than $10.2 million in fiscal 1990. Given the Committee's position on the review of major systems, it may wish to restrict funding for fiscal year 1990 until the Army has completed its economic analysis and passed the MAISRC review.

MAISRC Review and Economic Analysis Are Critical Factors

SIDPERS-3 qualifies for MAISRC review because it has an estimated program cost of almost $148 million. To date, however, reviews of the SIDPERS-3 system have been conducted only at the Army level. The Army in-process review held in April 1989 gave approval to award a contract for system design. The DOD Comptroller's staff originally scheduled a MAISRC

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[1] After we reported this information to the Committee in July 1989, Army officials stated that both estimates omit some hardware costs that should have been included and include hardware costs that should not have been included. They also stated that the program costs will be finalized after they complete a new economic analysis.

review for the summer of 1989; however, the SIDPERS-3 program staff
currently projects March 1990 as the possible review date.

An economic analysis for the system, including a cost comparison of
alternative designs, is required for both MAISRC and Army review. Amer-
ican Management Systems, Inc. prepared economic analyses for SIDPERS-3
in 1987 and 1989, but neither analysis was acceptable to the Army
because of certain costs the Army considered questionable. Also, neither
analysis considered alternatives other than the existing system and the
proposed SIDPERS-3. The SIDPERS-3 program staff is assembling an in-house
team to prepare a new economic analysis for the MAISRC review.

Army Information Processing Equipment Program

Background

The Army is establishing the Information Processing Equipment Program to replace and upgrade mainframe computers throughout the service. As part of this program, the Army plans to award a mainframe requirements contract that will allow it to upgrade a large number of International Business Machines (IBM) or IBM-compatible computers currently in use. The program will also allow the Army to award individual contracts to replace other mainframes as needed.

In the Procurement Programs (P-1) Department of Defense Budget for Fiscal Years 1990 and 1991, line item 122, the Army requested $8.2 million in fiscal year 1990 procurement funds for this program. The Army justified this request by stating that a streamlined procurement through a single contract or small set of contracts would result in increased efficiency and reduced prices.

Areas of Concern

The Army has changed its plans and will not award a requirements contract for mainframe computers before fiscal year 1992. Meanwhile, it plans to allow certain commands to do their own procurements using single contracts. Since the Army will not be awarding the planned requirements contract for 2 more years, and it is unlikely that the commands can complete the individual procurements for mainframes in fiscal year 1990, the Subcommittee may wish to consider deleting the $8.2 million requested for the Information Processing Equipment Program in fiscal year 1990.

Army Has Revised Its Program

After the budget was submitted to the Congress earlier this year, the Army has changed its plans and postponed procurement of the mainframe requirements contract discussed in the budget justification. At present the Information Processing Equipment Program does not have an approved Mission Element Needs Statement, a prerequisite for appointing a Program Manager. Thus, the Information Systems Command will not have the capability for central management of a requirements contract until a Program Manager has been appointed. According to an Army official, it will be 2 years before the program can award and manage a requirements contract. As an alternative, the Army plans to give the fiscal year 1990 and 1991 funds to some of the commands to do their own procurements. In fiscal year 1990, for example, the Army plans to give $4 million to the U.S. Army Recruiting Command, $1 million to the Western Command, and $1.056 million to the 8th Army (Korea), for a total of $6.056 million, which is $2.144 million less than the budget request for that year.

Because the Army plans to allow the three commands to do their own procurements, apparently the "streamlined procurement through a single contract" and the "reduction of price...realized through economies of scale", the compelling portions of the Army's budget justification, do not apply to the first 2 years of the program. Also, since the commands have not yet begun procurement, they probably could not complete the process in time to award contracts before the end of fiscal year 1990. Our earlier study of acquisition time in the Department of Defense[1] showed that a procurement took about 9 to 14 months after the General Services Administration received the request.

[1] ADP Procurement: Warner Amendment Has Not Reduced Defense's Acquisition Time (GAO/IMTEC-86-29, Jul. 31, 1986).

Oversight and Reporting for the Army Accounting System

Background

The Army Accounting System Strategic Plan, September 1988, describes the Army Accounting System (AAS) as a "single, integrated accounting system" that will provide accounting and financial management capabilities at the departmental and field levels. The plan states that this system will replace 44 accounting systems which are operationally inefficient, difficult and costly to maintain, slow or unresponsive to management needs, and not in compliance with the Comptroller General's accounting principles and standards. According to the plan, AAS—which is expected to be fully deployed by the early 1990s—will be easier to maintain and manage and more integrated than existing systems.

AAS consists of eight automated subsystems. The Program and Budget Accounting System will operate at the departmental level and will exchange information with field level systems. The other subsystems, which will operate at the field level, are Corps of Engineers Management Information System-Finance and Accounting, Army Materiel Command Accounting System, Standard Finance System-Redesign, Standard Army Financial Inventory Accounting and Reporting System-Modernization, Standard Army Civilian Pay System-Redesign, Military Pay Redesign, and Joint Uniform Military Pay System-Retired Pay.

AAS is being designed with various interfaces among its subsystems. For example, to control program and fund authorizations, the Program Budget and Accounting system will have automated interfaces with three subsystems at the field level. In addition, the Standard Army Financial Inventory Accounting and Reporting System-Modernization is supposed to receive civilian and military payroll information via automated interfaces with three other subsystems. The Army Materiel Command Accounting System and the Corps of Engineers Management Information System-Finance and Accounting will receive civilian payroll information from the Standard Army Civilian Pay System-Redesign.

According to budget exhibits 43A-1[1] that the Army submitted to the Office of the Secretary of Defense (OSD) with its fiscal year 1990/1991 budget, estimated obligations for AAS will total at least $326 million between fiscal years 1988 and 1994[2]. Actual AAS obligations totaled $62.2 million in fiscal year 1988 and estimated obligations for fiscal

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[1] The budget exhibit 43A-1 is required by Office of Management and Budget Circular A-11 and is used to report obligations for information technology resources.

[2] The DOD Budget Guidance Manual did not require the Army to prepare exhibits 43A-1 for the Corps of Engineers Management Information System-Finance and Accounting or the Joint Uniform Military Pay System-Retired Pay; therefore, our obligation estimates do not include funds associated with those subsystems.

year 1989 totaled $59.8 million. In addition, the Army plans to obligate $71.4 million for AAS in fiscal year 1990, including about $56.6 million in Operation and Maintenance, Army funds; and $13.7 million in Other Procurement, Army funds. The remaining obligations are split among the Army Industrial Fund, and the Operation and Maintenance, Army Reserve and Military Personnel, Army appropriation accounts.

Areas of Concern

AAS meets Defense definitions of a major system. However, AAS as a whole has never been reviewed by MAISRC or a similar Army-level group, and total AAS obligations have never been reported to Congress in the information technology systems budget.

AAS should be treated as a single system to improve the visibility of the system to Congress and to help ensure that necessary interfaces among the eight subsystems are properly planned and implemented. Therefore, the Committee may wish to appropriate the funds requested for AAS with the provision that the Army obtain MAISRC review of the total system and report obligations associated with AAS on information technology exhibits 43A-1—one containing an AAS summary, and one for each subsystem.

MAISRC Does Not Review AAS

MAISRC was created to provide structured oversight and prudent fiscal management in acquiring major automated information systems. According to Department of Defense Directive 7920.1, any system with program costs exceeding $25 million in any single year, with total program cost exceeding $100 million, or of special interest to OSD is considered a major automated system and is subject to MAISRC review. AAS meets both the $25 million yearly program cost and the $100 million total program cost thresholds. However, even though the AAS strategic plan states that AAS is a single system, and an Office of the Assistant Secretary of the Army (Financial Management) official confirmed that the Army views AAS as a single system, AAS has not been reviewed as one system by either the Army or OSD. Only one of the AAS subsystems— Standard Finance System-Redesign—is designated for MAISRC review; while three subsystems—Military Pay Redesign, Program and Budget Accounting System, and Standard Army Civilian Pay System-Redesign—are designated for Army-level MAISRC review.

As a practical matter, a MAISRC review highlights the need for the subsystems of AAS to properly interface with one another. Army officials said that the project managers for each subsystem are responsible for

ensuring that these interfaces are properly planned and implemented. We believe that MAISRC review of AAS would provide the oversight needed to achieve this.

According to Army and OSD officials, it would be very difficult to review AAS as a single system since each of the eight subsystems has a different project manager and different milestones. However, the Air Force Logistics Command Modernization Program, which consists of nine subsystems, each with different milestones and project managers, receives semi-annual, in-process MAISRC reviews. AAS could also receive similar oversight reviews.

The Army Does Not Report Total AAS Obligations in Its Information Technology Systems Budget

The Department of Defense Budget Guidance Manual repeats the definition of a major automated information system, and requires Defense components to submit a separate exhibit 43A-1 showing costs for each major system. It also requires exhibits 43A-1 on six of the eight AAS subsystems specifically.[3] The Army submitted exhibits 43A-1 for the six specified systems to OSD, but four of these exhibits were not reported to Congress because the requirement was imposed by OSD and not the Office of Management and Budget. Only the exhibits for the Standard Finance System-Redesign and the Military Pay Redesign were reported to the Congress, since they are the only AAS subsystems that individually meet the definition of a major system. The Army did not prepare or submit an exhibit 43A-1 for AAS, even though AAS meets the definition of a major system.

Army officials stated that they submitted to Congress exhibits 43A-1 only for subsystems that meet the major system definition because the subsystems are considered as separate systems for budget purposes. However, we believe that AAS should be reported in the information technology systems budget in a manner similar to that used for the Air Force Logistics Command Modernization Program—an aggregate exhibit 43A-1 for the entire system, with separate exhibits 43A-1 for each of the subsystems. An Army official stated that it would be possible to report the information for AAS as a whole.

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[3]The six subsystems are Standard Army Civilian Pay System-Redesign, Program and Budget Accounting System, Army Materiel Command Accounting System, Standard Army Financial Inventory Accounting and Reporting System-Modernization, Standard Finance System-Redesign and Military Pay Redesign.

Total Army Personnel Systems Contract

In March 1988, the Army published a synopsis in the Commerce Business Daily to announce a procurement for the Total Army Personnel Systems (TAPSYS). The stated requirement was for software services: the analysis, design and development of any software (e.g., system, application, or data base) needed for the Army's personnel systems. The Army awarded a requirements type contract (cost plus fixed fee) to Advanced Technology, Inc. for about $63 million over a period of up to 5 years. This corporation previously worked on several of the Army's major personnel systems.

The Defense Supply Service-Washington (DSS-W)[1] conducted the procurement and will administer the contract. The solicitation stated that the evaluation of the proposals would be based on technical factors, with 40 percent out of 100 points going to the technical approach, and 60 percent divided among staff qualifications, corporate qualifications, understanding of the problem, understanding of the objectives, and project management. The solicitation also stated that the cost or price factor would have no numerical weight but would be considered.

After receipt of initial offers, there was a difference of about $52 million between high and low proposals and a difference of 18 between high and low technical scores. Before requesting best and final offers, DSS-W gave each offeror an individual analysis of his response and identified the areas where it could be improved. In the final round of negotiations, the difference between high and low offers dropped to $46 million and the difference between technical scores to 12 points.

The Source Selection Evaluation Board of DSS-W performed the technical evaluation of the seven proposals submitted in response to the solicitation. On the final round the Board recommended that one proposal be eliminated because of its low technical score. The Board also determined that although the 12-point spread between the remaining six was not great, the technical difference was significant. On that basis, they recommended that only the two proposals with the highest technical scores be considered.

The Source Selection Authority of DSS-W, however, made an analysis of the labor prices used by all six offerors as the basis for the best and final proposal. There was a difference of $46 million between the high

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[1]The Secretary of the Army has responsibility for the procurement of goods and services required by the Military District of Washington and DSS-W is the component that performs the procurements. Although the DSS-W is part of Defense, it is under the Army for administrative purposes.

and low proposals. The Source Selection Authority determined that all but two were based on labor rates that were lower than the government was currently paying civil service employees and contractors to do similar work. The two proposals with acceptable labor rates had the highest dollar amounts and the highest technical scores. The contract was awarded to Advanced Technology, Inc., which had the highest technical score and the lower of the two proposed prices acceptable to DSS-W.

Objectives, Scope, and Methodology

Our objectives were to review Army's fiscal year 1990 budget request for general-purpose, automated information systems and to provide information on selected systems to the Subcommittee to help determine whether the systems should be funded in the amounts requested. We worked in the Washington, D.C. area between February and August 1989.

To obtain budget request information, we examined the Procurement Programs (P-1) Department of Defense Budget for Fiscal Years 1990 and 1991, as well as the Department of the Army Procurement Programs Committee Staff Procurement Backup Book, which contains information on equipment, contracts, and schedules (this information is shown on forms P-40 and P-22). We also examined the Department of the Army's Information Technology Systems Budget (this document contains exhibits 43A-E).

We met with officials from the Office of the Assistant Secretary of the Army (Financial Management) and the Office of the Director of Information Systems for Command, Control, Communications and Computers to obtain additional information on the budget requests. Officials from the Office of the Comptroller of the Department of Defense provided us with information on the status of Major Automated Information System Review Council actions. Officials from the General Services Administration provided us with information on delegations of procurement authority issued to the Army.

To obtain information on the selected programs reviewed for this request, we interviewed officials from the following Army components: Corps of Engineers; Office of the Chief, Army Reserves; Information Systems Selection and Acquisition Agency; Information Systems Engineering Command; Information System Command; Defense Supply Service-Washington; Army Judge Advocate General; Army Materiel Command.

We discussed the information in this report with officials representing the Department of Defense, Office of the Inspector General, the Office of the Comptroller of the Department of Defense, the Assistant Secretary of the Army (Financial Management) and the Director of Information Systems for Command, Control, Communications and Computers. Their comments are incorporated where appropriate. As requested, we did not obtain official agency comments on this report. We conducted our work in accordance with generally accepted government auditing standards.

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