

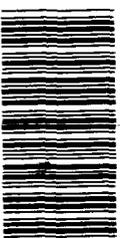
GAO

United States General Accounting Office  
Report to the Chairman, Subcommittee  
on Defense, Committee on  
Appropriations, House of  
Representatives

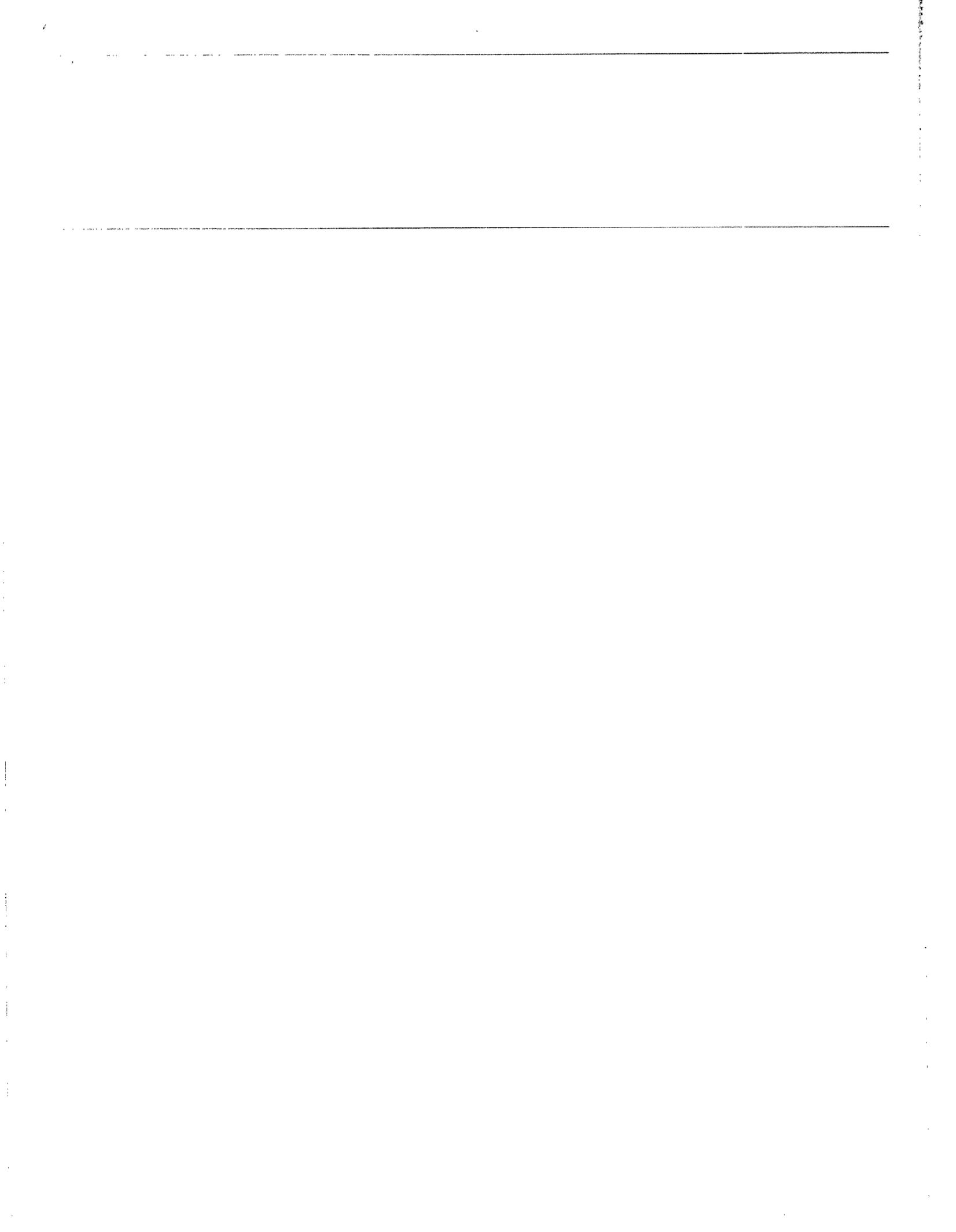
December 1990

## ARMY ADP

# Prevalence of Fourth Quarter Obligations



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United States  
General Accounting Office  
Washington, D.C. 20548

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Information Management and  
Technology Division

B-241751

December 20, 1990

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

Dear Mr. Chairman:

In February 1989, the Defense Inspector General reported that the Army buys most of its automated data processing (ADP) equipment in the last quarter of the fiscal year. On February 8, 1990, you consequently asked us to review its management of ADP funds. Specifically, you asked us to identify the prevalence of ADP year-end obligations, and determine whether they complied with Army policies and were cost-effective. As agreed with your office, we only reviewed the U.S. Army Training and Doctrine Command (TRADOC).

To determine the prevalence of year-end obligations of appropriated operation and maintenance funds, we identified fiscal years 1988 and 1989 Army annual ADP obligations and what portion of these occurred between July 1 and September 30, the fourth quarter of each fiscal year. To determine compliance, we selected a sample of fourth quarter ADP obligations at TRADOC. For cost-effectiveness, we relied upon our prior report on the Army's management of new ADP initiatives.<sup>1</sup> Details of our objectives, scope, and methodology are in appendix I.

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## Results in Brief

In fiscal years 1988 and 1989, Army records showed that 65 to 75 percent of the operation and maintenance funds obligated for acquiring ADP hardware and software were made in the last quarter of the fiscal year. At TRADOC, year-end ADP obligations we sampled complied with Command guidance. We previously reported that the Army has not completed an Army-wide architecture, nor implemented its information management plan for monitoring and controlling information initiatives at major commands and installations. Consequently, it cannot guarantee the cost-effectiveness of individual acquisitions.

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<sup>1</sup>Information Resources: Army Should Limit New Initiatives Until Management Program Is Implemented (GAO/IMTEC 90-58, June 29, 1990).

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## Background

During fiscal years 1988 and 1989, the Army's total ADP obligations from its operation and maintenance account<sup>2</sup> were about \$1.7 billion and \$1.8 billion, respectively. They were for hardware, software, leases and maintenance, and to pay personnel. Hardware acquisitions included buying computers and peripherals. Software acquisitions included commercially available software to support the hardware acquired.

In 1984, the Army established its Information Resources Management Program to set up a common management and planning structure. It would ensure that (1) all Army information requirements are identified, validated, and ranked; (2) unnecessarily redundant information systems are eliminated; and (3) an orderly transition from the present to the future computer environment is planned. The program requires each organization to (1) develop an information architecture to serve as the frame of reference for all information management decisions and (2) prepare an Information Management Plan of ranked initiatives. It plans to develop an overall Army information architecture from these smaller architectures.

The Army is organized into major commands that carry out specific functions. For example, TRADOC sets equipment requirements, designs organizational structures, and trains troops for combat. In April 1985, TRADOC set up an ADP division within its contracting activity at Fort Eustis, Virginia, to award automation-related acquisitions over \$2,000. Subsequently TRADOC issued an ADP Approval and Acquisition Guide to help personnel buy ADP resources. This guide requires procurement packages to be submitted to the contracting activity, which reviews them and issues obligation documents (e.g., purchase orders, contracts, requisitions). Before issuing an obligation document, the contracting activity must be sure each package includes (1) the director of information management (DOIM) certification of review, (2) a purchase request and commitment document, and (3) command review and approval.

DOIM certification documents that the package has been approved in accordance with TRADOC and Army regulations. A purchase request and commitment document ensures funds are available before an obligation is made. Command review and approval is given by the Office of the Deputy Chief of Staff for Information Management (DCSIM).

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<sup>2</sup>The Army also can acquire ADP resources from at least two other funding sources—other procurement appropriations and research, development, test, and evaluation appropriations.

## Obligations for Hardware and Software Prevalent in the Fourth Quarter

Army's annual obligations from its operation and maintenance appropriation for ADP hardware and software for fiscal years 1988 and 1989 were about \$115 million and \$147 million, respectively. As table 1 shows, 75 and 65 percent of these obligations occurred in the fourth quarter of these fiscal years.

**Table 1: Percent of Fourth Quarter ADP Obligations**

ADP Acquisitions	Percent obligated in fourth quarter	
	FY 1988	FY 1989
Hardware	77	62
Software	65	79
Total	75	65

Unlike hardware and software purchases, operation and maintenance obligations for salaries and travel were spread out fairly evenly throughout the year. Obligations for leases and maintenance fluctuated. Operation and maintenance funds obligated for salaries and travel were about 25 percent each quarter during both years; obligations for leases and maintenance did not exceed 33 percent in the fourth quarter of either year.

Army officials said that they planned to obligate funds for ADP hardware and software at year end to be sure they can cover other essential items such as salaries. In May 1989 House Appropriations Subcommittee hearings, the Army's Director of Information Systems for Command, Control, Communications, and Computers stated that commanders must ensure that salaries are paid and that soldiers are trained, fed, and clothed. Sometimes, he said, it is late in the fiscal year before commanders know whether they will have enough money to do other things such as to pave streets, restock supplies, or buy personal computers.

## Obligations at TRADOC Installations Comply With TRADOC Guidance

Based on our sample, TRADOC's fiscal year 1988 and 1989 fourth quarter ADP obligations comply with the Command's ADP Guide. Also, each sampled obligation was supported by the appropriate obligation document as required by the Army's Accounting and Fund Control regulation. In fiscal years 1988 and 1989, TRADOC's contracting activity processed 1,533 fourth quarter ADP obligations. Having selected and reviewed 53 of these, which represented at least one of the largest procurements for each TRADOC installation and activity, we found that every procurement package included the required documents. Each package (1) received

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DOIM certification, (2) contained a purchase request and commitment document, and (3) received architectural approval from TRADOC headquarters.<sup>3</sup> Also, each obligation was supported by a purchase order.

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## Army Lacks the Necessary Tools to Ensure Cost-Effective Acquisitions

Although TRADOC has met the paperwork requirements for obligating funds for the sample we reviewed, the Army lacks the tools to ensure that TRADOC's acquisitions are cost-effective. As we reported in June 1990, neither Army headquarters nor TRADOC has completed its information architecture. Also, the Army has not established an effective process for monitoring and controlling information initiatives service-wide.

Without an information architecture, the Army has not established an adequate framework that defines the relationships of all elements involved in information resources management. An information architecture should establish objectives, develop guidance, evaluate initiatives, and identify and rank requirements. Architecture development has been hindered at all levels by (1) the lack of a complete headquarters architecture to guide major commands and installations, (2) a lack of specific implementation guidance and milestones, (3) local commanders' lack of commitment to the program, and (4) an emphasis on new systems initiatives over architecture development. Recognizing the need for a headquarters architecture, they plan to complete it by March 1991.

We also reported in June 1990 that the Army has not established an effective process for monitoring and controlling information initiatives. As a result, it cannot consistently ensure that its automation initiatives are based on valid requirements, conform to an Army information architecture, and minimize duplication. Without an effective process and information architecture, the Army lacks the necessary tools which would assist in ensuring cost-effectiveness.

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Our previous report contains recommendations to correct weaknesses in the Army's ADP management. Accordingly, we are not making any further recommendations at this time.

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<sup>3</sup>TRADOC has not established an information architecture in accordance with Army guidance, however, a proprietary operating environment (hardware, operating systems, and communications network protocols) has been mandated for all of its installations. According to a DCSIM official, they review the procurement package to ensure compliance with this mandated environment.

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We did not obtain written agency comments on a draft of this report. We did, however, discuss its contents with Army officials and have included their comments where appropriate.

We are providing copies of this report to the Chairmen, Senate Committee on Appropriations, House and Senate Committees on Armed Services, House Committee on Government Operations, and Senate Committee on Governmental Affairs. Should you have any questions about this report or require additional information, please contact me at (202) 275-4649. Major contributors to this report are listed in appendix II.

Sincerely yours,



Samuel W. Bowlin  
Director, Defense and Security  
Information Systems

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# Contents

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Letter	1
Appendix I Objectives, Scope, and Methodology	8
Appendix II Major Contributors to This Report	10
Table	3

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Table 1: Percent of Fourth Quarter ADP Obligations

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## Abbreviations

ADP	automated data processing
DCSIM	Deputy Chief of Staff for Information Management
DOIM	Director of Information Management
GAO	General Accounting Office
IMTEC	Information Management and Technology Division
TRADOC	Training and Doctrine Command



# Objectives, Scope, and Methodology

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On February 8, 1990, the Chairman, Subcommittee on Defense, House Committee on Appropriations, asked that we review the Army's management of ADP funds at its major commands and installations. On the basis of further discussions with a member of the Subcommittee staff, we were asked to (1) identify the prevalence of year-end ADP obligations and (2) determine whether these obligations complied with Army policies and resulted in cost-effective acquisitions.

To accomplish these objectives, we reviewed Army ADP obligation procedures and data related to the sustaining base environment for fiscal years 1988 and 1989. The term sustaining base refers to information used to manage Army resources and installations and deploy and sustain fighting forces. We did not review obligations for strategic or tactical automation. We performed our work at the Department of Army headquarters in the Washington, D.C., area; TRADOC, Fort Monroe, Virginia; TRADOC's installations at Fort Leavenworth, Kansas, and Fort Leonard Wood, Missouri; and the TRADOC Contracting Activity, Fort Eustis, Virginia.

We interviewed appropriate agency officials and reviewed reports by the Department of Defense Inspector General, Department of the Army Inspector General, Army Audit Agency, and the Congress. We reviewed laws, policies, and documents to identify criteria for year-end obligations.

To determine the prevalence of fiscal years 1988 and 1989 year-end ADP obligations, we interviewed Army officials and reviewed annual and fourth-quarter obligations data from Army headquarters. This information listed how much money major commands obligated for ADP hardware, software, salaries, leases, and maintenance. We did not independently assess the accuracy of this data.

To determine whether obligations complied with Army regulations, we limited our review to TRADOC, which is one of the Army's 11 major commands. We interviewed officials and reviewed a judgmental sample of TRADOC fourth quarter ADP obligations for fiscal years 1988 and 1989. To select our sample, we obtained computer-generated reports of all fourth-quarter obligations for ADP acquisitions made by the TRADOC contracting activity. The reports showed 563 and 970 acquisitions for fiscal years 1988 and 1989, respectively. We identified at least one of the largest dollar obligations for acquisition for each installation during the fourth quarter of each fiscal year, and reviewed a total of 53 acquisitions to see

if they followed Army regulations. But we did not independently assess the accuracy of TRADOC's data.

Our criteria for determining compliance was TRADOC's ADP Approval and Acquisition Guide and chapter 12-3 of Army Regulation 37-1. We checked that each procurement package received DOM certification and command review and approval, contained a purchase request and commitment form, and was supported by an obligation document.

To address the cost-effectiveness question, we used information gathered from our prior work and the subsequent report, Information Resources: Army Should Limit New Initiatives Until Management Program Is Implemented (GAO/IMTEC-90-58, June 29, 1990).

We conducted our review between April 1990 and September 1990, in accordance with generally accepted government auditing standards, with the exception noted above about independently assessing data accuracy. We did not obtain written comments from the Department of the Army on a draft of this report. However, we discussed the contents of this report with Army officials, and have included their comments where appropriate.

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# Major Contributors to This Report

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Thomas J. Howard, Assistant Director  
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