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# BY THE U.S. GENERAL ACCOUNTING OFFICE

## Report To The Secretary Of Commerce

# Department Of Commerce's Second-Year Efforts To Implement The Federal Managers' Financial Integrity Act


GAO reviewed 23 federal agencies' efforts to implement the Federal Manager's Financial Integrity Act of 1982. The act was intended to help reduce fraud, waste, and abuse across the spectrum of federal government operations through annual agency self-assessments of internal controls and accounting systems.

This report discusses problems encountered and progress made by the Department of Commerce in its second year of implementing the act. The report focuses on Commerce's evaluation of and efforts to improve internal controls and accounting systems. It also assesses the Secretary of Commerce's second annual reports to the President and the Congress on the adequacy of Commerce's internal controls and its accounting systems' conformance to the principles and standards prescribed by the Comptroller General.





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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

B-216946

The Honorable Malcolm Baldrige
The Secretary of Commerce

Dear Mr. Secretary:

This report presents our evaluation of the Department of Commerce's second-year implementation of the Federal Managers' Financial Integrity Act of 1982 (U.S.C. 3512(b) and (c)), which is aimed at strengthening internal control and accounting systems in federal agencies.

This report contains recommendations to you on pages 30, 40, and 51. As you know, 31 U.S.C. 720 requires the head of a federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the chairmen of the House and Senate Committees on Appropriations; the House Committee on Government Operations; the Senate Committee on Governmental Affairs; the Director, Office of Management and Budget; appropriate congressional committees; and other interested parties.

Sincerely yours,

J. Dexter Peach
Director

## EXECUTIVE SUMMARY

Congress enacted the Federal Managers' Financial Integrity Act in 1982 in response to continuing disclosures of fraud, waste, and abuse in government operations that were attributable to internal control weaknesses and accounting system problems. The act requires that each federal agency establish internal accounting and administrative controls and evaluate and report to the President and the Congress on the condition of these controls. Commerce, which was authorized to spend about $2 billion in fiscal year 1984, is implementing a department-wide effort to evaluate and improve internal controls as required by the act.

In reviewing Commerce's implementation of the act, GAO assessed

--Commerce's progress in implementing actions to correct internal control weaknesses and in improving its internal control evaluation process,

--Commerce's progress in correcting accounting systems' areas of nonconformance with the Comptroller General's principles and standards and in improving its evaluation of accounting systems, and

--the reasonableness of the Secretary's annual reports on internal controls and accounting systems.

### BACKGROUND

The act requires each federal agency to establish and maintain internal accounting and administrative controls, in accordance with standards prescribed by the Comptroller General, that reasonably assure that obligations and costs are in compliance with applicable law, assets are safeguarded against fraud, waste, and abuse, and revenues and expenditures are properly recorded and accounted for. (See pp. 1 and 2.)

Agency heads must annually evaluate and report to the President and the Congress on whether their internal control systems comply with the act's requirements. To the extent systems do not comply, the report must identify material weaknesses in their systems together with plans for corrective actions. They also must report on whether their agency's accounting systems conform to the Comptroller General's principles and standards. (See p. 2.)

GAO issued standards for agencies to meet in establishing internal control systems. The Office of Management and Budget also issued guidelines that require federal agencies to analyze programs and functions to determine their vulnerability to fraud, waste, and abuse. Commerce established procedures to implement OMB's guidelines to evaluate its internal controls for compliance with GAO standards. (See pp. 1, 2, and 3.)

**RESULTS IN BRIEF**

Commerce is acting to correct internal control problems and is improving its process for evaluating internal controls. GAO found, however, some areas where Commerce needs to strengthen its process for assessing vulnerabilities and testing its internal controls.

Commerce made progress in evaluating its accounting systems' conformance with the Comptroller General's principles and standards; however, it did not adequately test most of its accounting systems in operation to determine whether they function as intended.

The Secretary accurately reported, in GAO's opinion, that Commerce had not conducted sufficient tests of internal controls to fully assure that its internal controls meet the act's objectives. The Secretary also reported that, except for areas of nonconformance noted in his report, Commerce's accounting systems conform to GAO standards. GAO believes that Commerce is not in a sound position to determine overall system conformance because most systems were not adequately tested in operation to ensure that they operate as intended.

**PRINCIPAL FINDINGS**

Commerce acted to correct the two material weaknesses it identified in its 1983 report in its economic development business loan program

**Correcting control weaknesses**

and property management system. However, as recognized by the Secretary in his 1984 report, more needs to be done to correct these weaknesses. For example, Commerce established a task force to develop an automated personal property system but needs to complete design and testing plans for the system and implement the system. In its 1984 report Commerce identified 19 material weaknesses including the 2 weaknesses reported in 1983 and others, such as lack of proper controls over access to and use of the National Weather Service computer resources. The Secretary outlined plans to correct each weakness. (See pp. 8, 9, and 10.)

**Evaluating internal controls**

Commerce made progress in fiscal year 1984 in establishing processes to evaluate its internal controls by specifying responsibilities and issuing guidelines for evaluating and reporting on internal controls, conducting quality assurance reviews, and establishing a system to track corrective actions. Although Commerce improved its evaluation process, Commerce's vulnerability assessments did not fully identify and describe the significance of risks inherent in its activities because Commerce used forms to conduct the assessments that were general and did not always include risks specific to the assessed activity. (See pp. 14 and 18.)

GAO evaluated 10 of the 23 internal control reviews Commerce completed in 1984 and found that 6 reviews did not completely test controls to determine whether controls were in place and functioning as intended. For example, one review of a billing and collection function described controls in the function but did not test controls to determine whether they operate as intended. Commerce's quality assurance evaluations of the internal control reviews were conducted after testing was completed. More effort is needed to ensure that internal control reviews are adequately planned. (See pp. 33 and 38.)

**Accounting system status**

Commerce evaluated its eight accounting systems in fiscal year 1984. The evaluations of five of the eight systems did not adequately test the systems to ensure that they operate as intended.

The evaluations of the other three systems included limited testing of transactions but did not cover key aspects of the systems. (See p. 42.)

**RECOMMENDATIONS**

GAO recommends, among other things, that the Secretary of Commerce

- --revise Commerce's guidelines for conducting vulnerability assessments so that managers are required to identify specific risks and controls (see p. 30),
- --ensure that sufficient tests of controls are planned for internal control reviews prior to the conduct of the reviews (see p. 40), and
- --test Commerce's accounting systems in operation, including determining whether valid transactions are processed in accordance with applicable requirements and whether the systems react appropriately to invalid transactions (see p. 51).

**AGENCY COMMENTS**

Commerce disagreed with GAO's position that the agency does not have a sound basis for providing reasonable assurance that its accounting systems conform to the Comptroller General's principles, standards, and related requirements. Commerce stated that it believed its fiscal year 1984 accounting system reviews accomplished the test objectives of our recommendations. GAO continues to believe that Commerce needs to do more testing of its accounting systems in operation to have a sound basis for providing reasonable assurance. (See p. 51.)

Commerce also made comments or raised questions about other recommendations in the report, which we discuss in agency comments sections following chapters 3, 4, and 5. (See pp. 31, 40, and 51.)

<u>Contents</u>

## ILLUSTRATIONS



## ABBREVIATIONS

| | |
|---|---|
| ADP | automatic data processing |
| EDA | Economic Development Administration |
| FMFIA | Federal Managers' Financial Integrity Act |
| GAO | General Accounting Office |
| ITA | International Trade Administration |
| MBDA | Minority Business Development Agency |
| NBS | National Bureau of Standards |

| | |
|---|---|
| NOAA | National Oceanic and Atmospheric Administration |
| NTIS | National Technical Information Service |
| NWS | National Weather Service |
| OFFA | Office of Finance and Federal Assistance |
| OMB | Office of Management and Budget |
| OMO | Office of Management and Organization |

# CHAPTER 1

# INTRODUCTION

Responding to continuing disclosures of fraud, waste, and abuse across a wide spectrum of government operations, the Congress in 1982 enacted the Federal Managers' Financial Integrity Act (FMFIA) (31 U.S.C. 3512(b) and (c)). The act strengthens the existing requirements of the Accounting and Auditing Act of 1950 that executive agencies establish and maintain systems of accounting and internal control in order to provide effective control over, and accountability for, all funds, property, and other assets for which the agency is responsible (31 U.S.C. 3512(a)(3)). The act is intended to help reduce fraud, waste, and abuse in federal government activities and operations.

Commerce is one of GAO's 23 agency reviews of the status of federal agencies' efforts to implement the act.

## OVERVIEW OF FMFIA

The FMFIA is intended to help reduce fraud, waste, and abuse in federal government activities and operations. Section 2 of the act requires the following:

--Each agency must establish and maintain internal accounting and administrative controls in accordance with the standards prescribed by the Comptroller General[1] that reasonably assure that (1) obligations and costs comply with applicable law, (2) all funds, property, and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation, and (3) revenues and expenditures applicable to agency operations are recorded and properly accounted for.

--Each agency must annually evaluate and report on whether the agency's systems of internal controls comply with the requirements set forth in the act. To the extent systems do not comply, the act also requires that agency reports

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[1]Section 2 of the act requires the Comptroller General to prescribe standards for federal agencies' internal accounting and administrative control systems. The Comptroller General issued these standards in June 1983. The standards define the minimum level of quality acceptable for internal control systems in operation and constitute the criteria against which systems are to be evaluated.

identify the material weaknesses[2] involved and describe the plans for corrective action.

--The Office of Management and Budget (OMB) must issue guidelines for federal departments and agencies to use in evaluating their internal accounting and administrative control systems.

Section 4 of the act requires that each agency prepare a report on whether the agency's accounting systems conform to principles, standards, and related requirements prescribed by the Comptroller General.

## OMB GUIDELINES FOR EVALUATING INTERNAL CONTROLS

In compliance with FMFIA, OMB issued guidelines in December 1982 for use by agencies in evaluating the adequacy of their internal controls. Specifically, the guidelines recommend that agencies

--Organize the evaluation process by determining what information and assurances are to be provided to the agency head for the year-end report; assign responsibilities for planning, directing, and controlling the evaluations; and develop an information system to track the status of the evaluations and corrective actions.

--Segment the agency into organizational components and identify assessable units, which are programs and administrative functions conducted in each component that will be the subject of a vulnerability assessment.

--Assess the vulnerability of assessable units to fraud, waste, and abuse. The assessment is done by identifying the factors that create an inherent risk in the function, considering the operating environment of the function, and preliminarily evaluating whether safeguards exist to prevent fraud, waste, or abuse.

--Develop plans and schedules for conducting internal control reviews and other actions on the basis of the results of the assessments and other considerations so that internal controls in programs and functions deemed

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[2]Material weaknesses are defined by the House Committee on Government Operations as those matters that could (1) impair fulfillment of an agency's mission, (2) deprive the public of needed government services, (3) violate statutory or regulatory requirements, or (4) result in a conflict of interest.

most vulnerable, as well as those deemed less vulnerable, are evaluated and improved as necessary.

--Review internal controls by determining whether adequate control objectives and techniques exist and are functioning as intended and by developing recommendations to correct weaknesses.

--Determine, schedule, and take corrective actions to improve internal controls on the basis of the cost-effectiveness of the action.

--Submit an annual report to the President and the Congress on the status of the agency's system of internal controls.

## BACKGROUND ON COMMERCE'S CREATION, PURPOSE, AND ORGANIZATION

Commerce, which was established as a separate department on March 4, 1913, is composed of 12 major operating units: the Office of the Secretary, the International Trade Administration (ITA), Economic Development Administration (EDA), Minority Business Development Agency (MBDA), National Bureau of Standards (NBS), National Oceanic and Atmospheric Administration (NOAA), Patent and Trademark Office, Bureau of the Census, Bureau of Economic Analysis, National Telecommunications and Information Administration, the United States Travel and Tourism Administration, and the National Technical Information Service.

Commerce's mission is to encourage, service, and promote the nation's international trade, economic growth, and technological advancement. The Department carries out its mission through a wide variety of programs. It offers assistance and information to increase exports, limits unfair foreign trade competition, provides social and economic statistics and analyses, conducts research and supports scientific and technological development, grants patents and registers trademarks, provides loans and grants for domestic economic development, supports research to improve understanding of the physical environment and oceanic life, forecasts weather conditions, promotes travel to the United States by residents of foreign countries, and assists minority business. During fiscal year 1984 Commerce was authorized to spend about $2.0 billion and had about 24,792 employees to carry out its missions and programs.

## COMMERCE'S INTERNAL CONTROL EVALUATION PROCESS

Commerce established, in July 1983, the Management Control Division, Office of Management Analysis and Control, currently Office of Management and Organization (OMO), under the Assistant

Secretary for Administration to provide central direction, technical assistance, and coordination of the internal control evaluation process. Commerce issued its administrative order on internal controls in August 1984 assigning responsibilities to senior-level managers for the internal control evaluation process. The Assistant Secretary for Administration oversees the Department's process and the Inspector General provides technical assistance, reviews Commerce's internal control evaluation process, and reports annually to the Secretary whether the evaluation was carried out in accordance with OMB and Commerce guidelines. The administrative order assigns to program and administrative managers responsibility for ensuring that internal controls within their activities are subject to vulnerability assessments and internal control reviews.

Each bureau head has designated a senior manager who is responsible for overseeing the evaluation process to ensure that the bureau properly carries out the process and represents the bureau on Commerce's Internal Control Committee. Committee members act as liaisons between the Department and its bureaus and advises the Assistant Secretary on departmental internal control policies.

## OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of our review, which was conducted between June 1984 and March 1985, were to

--update and evaluate Commerce's progress in evaluating its internal control and accounting systems,

--determine whether Commerce is acting to implement corrective actions recommended in the internal control evaluation process and to correct accounting systems' areas of nonconformance with the Comptroller General's principles and standards, and

--assess the reasonableness of Commerce's second annual reports on the adequacy of its internal controls and its accounting systems' conformance to the principles and standards prescribed by the Comptroller General.

To assess Commerce's progress in evaluating its internal controls and accounting systems, we reviewed (1) OMB guidelines for internal control evaluations, (2) our report[3] on Commerce's first-year implementation of FMFIA, (3) Commerce's administrative order on internal controls, (4) its guidelines for internal control and accounting system evaluations, and (5)

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[3]Department of Commerce's First-Year Implementation of the Federal Managers' Financial Integrity Act (GAO/RCED-84-133, June 22, 1984).

the Secretary's 1983 and 1984 internal control and accounting system reports. We randomly selected 20 vulnerability assessments and judgmentally selected 23 other assessments in order to determine whether Commerce had consistently followed its guidelines and improved its assessment process. We also reviewed 3 assessments conducted at 3 of Commerce's 13 major automatic data processing (ADP) centers in order to determine how Commerce assessed ADP vulnerabilities. We reviewed supporting documentation for each of these assessments and discussed the value of the assessments with managers responsible for the activities assessed. Commerce completed approximately 500 vulnerability assessments during fiscal year 1984.

We also randomly selected 9 of the 23 internal control reviews that Commerce completed during fiscal year 1984 and judgmentally selected another review that was conducted at an ADP center in order to determine how completely Commerce tested its systems of internal controls through FMFIA. We discussed with internal control review team members areas covered by the review and the work they did to complete the review. We reviewed internal control documentation to determine whether it supported conclusions made in the reviews. We also reviewed documentation prepared by Commerce's Office of Management and Organization during its quality assurance evaluations of vulnerability assessments and the Office of the Inspector General's evaluations of assessments and internal control reviews. We discussed our findings with officials from these offices in order to determine whether our findings were consistent with those resulting from Commerce's quality assurance evaluations. We also discussed with Commerce's Office of Finance and Federal Assistance and bureau finance officers the work they conducted in order to evaluate their accounting systems, and reviewed supporting documentation.

In order to evaluate Commerce's progress in implementing corrective actions recommended in the evaluation process, we reviewed supporting documentation and discussed with responsible managers Commerce's plans for and progress in correcting the two material weaknesses identified in the Secretary's 1983 report. We discussed the status of corrective actions recommended in 10 randomly selected internal control reviews completed in 1983 and 10 internal control reviews Commerce completed in 1984 that we evaluated. We also discussed with assessing managers the status of corrective actions recommended in 34 of the 46 assessments included in our review. Similarly, through discussions with finance officers and reviews of supporting documents, we evaluated Commerce's progress in correcting those accounting system areas of nonconformance that the Secretary reported to the President and the Congress in 1983.

We used the results of our evaluation of Commerce's 1983 progress to assess the reasonableness of Commerce's second annual reports on the adequacy of internal controls and accounting systems' conformance with the Comptroller General's principles and standards.

Our work was conducted in accordance with generally accepted government auditing standards.

# CHAPTER 2

## COMMERCE'S ACTIONS TO IMPROVE INTERNAL CONTROLS

The Secretary of Commerce reported in 1984 to the President and the Congress that sufficient testing of internal controls had not been done to support a full assurance statement. The Secretary reported 19 material internal control weaknesses including weaknesses in administrative and support functions, such as accounting, ADP, procurement, payroll, and property management, and in program areas, such as Census' planning for the decennial census, EDA's managing and administering of its business loans, the Minority Business Development Agency's planning for and monitoring of its business development centers and the Inspector General's audit follow-up system (see page 54). The Secretary had reported material weaknesses in property management and EDA's servicing of its business loans in 1983.

Commerce has either started actions or planned actions to correct weaknesses in each of these areas. Commerce is also acting to correct other weaknesses that the Secretary did not include in his report.

In addition, Commerce acted to correct problems that existed in its evaluation process during 1983 by

--segmenting its activities into smaller assessable units and providing greater field office involvement in the process;

--defining responsibilities for the evaluation process;

--improving its guidance on segmenting, vulnerability assessments, and quality assurance; and

--establishing a department-wide system for tracking corrective actions.

### HIGHLIGHTS OF THE SECRETARY'S 1984 REPORT ON INTERNAL CONTROLS

On December 28, 1984, the Secretary reported to the President and the Congress that, although he believes that Commerce's systems of internal controls were in place and functioning as intended, he did not believe that sufficient testing of the controls had been done to support a full assurance statement. The Secretary had similarly reported in 1983 that, although Commerce's progress in evaluating its internal controls was reasonable, he did not believe the evaluation was broad enough to provide assurance that all internal control systems were in place and meeting their objectives. The Secretary in 1984 reported on

--Commerce's efforts to correct the two material weaknesses reported in 1983;

--Commerce's plans to correct the 19 internal control weaknesses identified in 1984, which included the 2 weaknesses defined in 1983; and

--Commerce's efforts to improve its internal control evaluation process.

## COMMERCE HAS BEGUN CORRECTING MATERIAL WEAKNESSES REPORTED IN 1983

In his 1983 report on internal controls, the Secretary cited the management and administration of the EDA's business loan program and the Department's management of personal property as material weaknesses that Commerce needed to correct.

### EDA's efforts to improve its business loan program

The Secretary pointed out in his 1983 report that about 40 percent of EDA's approximately $1 billion business loan portfolio was either delinquent or in default. In explaining the business loan material weakness, the Secretary stated that EDA was (1) not adequately ensuring that loans were made on a sound financial basis, (2) servicing loans poorly, and (3) failing to meet program objectives to create or maintain jobs. Some of the more important corrective actions planned by the Secretary include

--developing guidelines for comprehensive financial analysis of applicants and current borrowers;

--more effectively using credit checks;

--augmenting resources to improve loan servicing;

--adopting procedures to collect and review employment data to assess impact and achievement of program objectives and agency goals; and

--other actions, such as providing additional training for financial analysts and developing processing standards to accomplish major actions in remedying delinquent loans and liquidations of defaulted loans.

The Secretary reported that these actions were to be implemented before the end of fiscal year 1984. In his 1984 report the Secretary stated, however, that although progress has been made in resolving loan defaults, the business loan program was still highly vulnerable and corrective actions were not yet completed. Consequently, the Secretary reported the EDA business loan program as a material weakness again in 1984.

To correct weaknesses it identified in its business loan program, EDA

--issued a revised loan administration directive in March 1985 to provide guidelines for financial analysis, loan processing, and processing standards to accomplish major actions associated with agreements with borrowers and liquidations;

--provided training in evaluating applicants and current borrowers to 13 senior financial analysts of EDA's 40 analysts;

--required that analysts in field offices use credit checks during the review of loan applicants to determine the actual financial status of potential borrowers in terms of indebtedness, payment records, etc.;

--completed a review of its memorandum of understanding with the Small Business Administration, through which that agency conducts liquidations for EDA, to ensure that the maximum amount of collections are made, and found that the memorandum of understanding does not need revising and no further action is needed; and

--analyzed its resource needs for field staff and concluded that since the field's workload has decreased, no additional staff are required.

Commerce's efforts to improve its personal property management system

The Secretary reported a material weakness in personal property in his 1983 statement because Commerce had not

--properly valued inventories,

--taken annual physical inventories,

--reconciled physical inventories to accounting records, or

--conformed to principles and standards relating to disposition of property.

The Chief, Operations Support Division, Office of Administrative Services Operations, estimated that Commerce's inventory of personal property is valued at about $500 million. The Secretary pointed out in his 1984 report that problems arising from the internal control weakness include inadequate controls over the size of inventories that could lead to an oversupply or undersupply of items and a waste of resources because the amount of space required to store actual property was not known. Commerce has taken action to improve personal property controls, including establishing a task force to develop an automated personal property system. The goal of a department-wide system is to provide a method to manage all accountable personal property within Commerce, including inventory control. The Secretary stated in his 1984 report that, even though Commerce had improved controls over personal property, more work needed to be done to correct the weakness. Consequently, the Secretary again reported personal property as a material weakness in 1984.

We found that the task force to develop an automated personal property inventory and control system has developed a requirements proposal for the data elements of the system. As the Secretary recognized in his 1984 statement on internal controls, Commerce needs to complete more work on the personal property system to correct the material weakness. For example, no system design and testing or implementation plans have been finalized. Commerce also needs to decide on the frequency and extensiveness of physical inventories. Additionally, Commerce needs to prepare plans to integrate the department-wide property system with Commerce's procurement and accounting systems.

Several bureaus identified weaknesses in their property management systems when they conducted their 1984 vulnerability assessments and internal control reviews and are planning various actions to improve their systems. The International Trade Administration is establishing an interim equipment-specific personal property system to minimize its vulnerability to loss of high-risk property until Commerce's system is implemented. This effort is limited to the International Trade Administration's headquarters, but it plans to expand the effort to its field locations and to complete an inventory of specific equipment at these locations by the end of fiscal year 1985.

Even though Commerce has improved controls over the management of personal property, it needs to complete its planning for the personal property management system and then to implement the system before this item can be removed from Commerce's list of material weaknesses. The Secretary's 1984 year-end report on internal controls projects that the design and testing of the system will be done in fiscal year 1985 with phased implementation in fiscal year 1986.

## MATERIAL WEAKNESSES REPORTED BY THE SECRETARY IN 1984

In December 1984, the Secretary reported 17 material weaknesses in addition to the weaknesses in EDA's business loans program and the Department's personal property management system (see app. I). The Secretary reported weaknesses in seven of

Commerce's bureaus and offices affecting administrative and support functions such as accounting, ADP, procurement, and payroll, and in program areas such as Census' planning for the decennial census, MBDA's planning for and monitoring of the Minority Business Development Center Program, and the Inspector General's audit follow-up system. The Secretary outlined actions planned to correct each weakness.

For example, the Secretary defined deficiencies in Commerce's consolidated personnel and payroll system as a material weakness. The Secretary stated that Commerce's system is labor-intensive; unable to accommodate certain kinds of transactions, such as fractional hours; and poorly documented. Such weaknesses cause inefficiencies and increase costs. The Secretary stated that Commerce decided after a detailed study of improvement options to merge Commerce's system with the Department of Agriculture system. Data contained in Commerce's tracking system indicate that as of March 31, 1985, the merger of Commerce's system with the Department of Agriculture's personnel/payroll system was on schedule. Commerce plans to have its entire payroll on the Agriculture system by July 1986.

In another case, the Secretary stated that the National Weather Service relies on computer resources to carry out its activities. These resources are located in over 300 offices and have a hardware purchase value of nearly $100 million. The Secretary stated that the Weather Service lacks a comprehensive plan to control access to and use of its computer resources. The Weather Service intends to complete a plan in 1985 that focuses on the security of its automated information systems. The plan, based on OMB Circular A-71, will serve as the primary management tool to evaluate Weather Service controls dealing with access to and use of computer resources.

In the accounting area, the Secretary reported that the National Oceanic and Atmospheric Administration does not have adequate controls to ensure consistent cost recovery practices for environmental data it sells at its four environmental data centers. In our report entitled Cost Recovery Practices Inconsistent With Government Policy (GGD-83-61, July 27, 1983), we stated that the data centers' cost recovery practices resulted in both overcharges and undercharges. NOAA has completed an internal control review of its data center cost recovery policies and, as of June 1985, was reviewing the internal control review report.

In the area of program weaknesses, the Secretary reported that the Bureau of the Census lacks a master plan for the 1990 decennial census covering milestones associated with decennial activities, ADP improvements, and cost-saving upgrades. In our reports, A $4 Billion Census In 1990? Timely Decisions on Alternatives to 1980 Procedures Can Save Millions (GGD-82-13, Feb. 22, 1982) and The Census Bureau Needs to Plan Now for A

More Automated 1990 Decennial Census (GGD-83-10, Jan. 11, 1983), we pointed out the high cost of conducting a decennial census (estimated at $1 billion for the 1980 census) and the need to plan cost-saving procedures such as increased use of ADP to reduce costs.

In his 1984 report the Secretary stated that Census would complete during 1985 a planning schedule and would establish an ADP Planning and Acquisition Staff that would prepare ADP development plans within 2 years following its establishment. According to information contained in Commerce's tracking system, the Bureau of the Census submitted a planning schedule to the Department in February 1985 and established an ADP Planning and Acquisition Staff in March 1985.

The Secretary also reported that MBDA's control systems do not bring about the desired emphasis of the Minority Business Development Center Program, which provides funds to organizations that provide various management and technical services to minority-owned businesses. The program had about $37 million available in fiscal year 1984. The Secretary reported that the agency had incorporated new procedures in its plans to fund the centers that would correct past deficiencies and was upgrading its monitoring procedures. The Chief, Office of Business Development, told us in February 1985 that the agency had prepared new competitive guidelines for the program to provide for more equitable selection of centers to be funded and appraise the centers' performance.

The agency's Assistant Director, Field Operations, told us in February 1985 that the agency had drafted a revised program monitoring handbook. He stated that quality assurance over monitoring was not included in the handbook but would be covered in training programs and also in another handbook that the agency planned to prepare concerned with how to manage a region. He also stated that the agency had not prepared a training package but planned to prepare such a package after the monitoring handbook was approved. In May 1985 the agency's internal control coordinator told us that the agency had established a training schedule for each of its regional offices during May 1985 to discuss the monitoring handbook. This official told us that quality assurance would probably be part of the training session. He stated that the agency planned to field test the monitoring procedures in May 1985 and to finalize the new handbook by the end of June 1985. As of June 24, 1985, the agency had completed field testing and was finalizing the new handbook.

## CORRECTIVE ACTIONS RECOMMENDED IN VULNERABILITY ASSESSMENTS AND INTERNAL CONTROL REVIEWS

In addition to actions taken to correct weaknesses contained in the Secretary's year-end report, we found that Commerce is acting to correct other weaknesses identified in its evaluation process but that the Secretary did not believe these other weaknesses were significant enough to include in his year-end report. We selected 46 of Commerce's vulnerability assessments that were conducted in 1984 to review in detail in order to determine whether managers had conducted them in accordance with OMB and Commerce guidelines. Of these 46 vulnerability assessments, 34 contained corrective actions. A total of 69 corrective actions were recommended in these assessments.

During our interviews with assessing managers, which were conducted, for the most part, in the fall of calendar year 1984 (approximately 5 months after Commerce completed its assessments), they told us that 17 corrective actions had been implemented. Of the remaining 52 actions in process, implementation of 18 actions had slipped from the originally established target dates for completing the actions. The corrective actions include a wide variety of actions designed to improve internal control by establishing delegations of authority, improving policies and procedures, improving reporting systems and ADP systems, and training personnel in internal control systems.

For example, assessing managers told us that in response to weaknesses defined in the assessments,

--Census' Charlotte Regional Office requested and obtained from Commerce clarification between the Eastern Administrative Support Center and Charlotte regarding delegations of authority for local purchasing and recruitment authority.

--The National Marine Fisheries Service is processing a revised policy on confidentiality of fisheries' statistics.

--Commerce's Eastern Administrative Support Center established a schedule to train its personnel staff in personnel activities to increase their effectiveness.

--The Procurement Division of the Eastern Administrative Support Center is implementing an automated system to track its activities.

We also discussed with internal control reviewers and bureau-level officials the status of corrective actions recommended in 10 internal control reviews Commerce conducted in

1983 and 10 reviews it conducted in 1984. These reviews recommended a total of 113 actions to improve internal controls. According to information contained in Commerce's system for tracking corrective actions and our interviews with internal control reviewers and bureau-level officials, Commerce has acted to implement 107 of these recommendations. We found that there has been no action to implement six recommendations to improve internal controls over time and attendance procedures, but as previously discussed, Commerce is acting to correct a material weakness in its payroll and personnel system by merging it with the Department of Agriculture system.

The reviews recommended a wide variety of actions to improve internal controls, including preparing and documenting policies and procedures, training personnel in internal controls, establishing or documenting ADP systems, and other actions.

For example,

--NOAA reviewed controls over provisioning of its ships with foodstuffs, which, according to the internal control review report, involved $1.2 million in 1983, and found that, among other things, it needs to improve its inventory procedures. According to an NOAA internal control coordinator, as of June 1985, NOAA was working with a contractor to investigate the establishment of a complete management information system for the ships that would include food inventory.

--The National Bureau of Standards reviewed its controls over unauthorized access to data files on its central computer facility and found that appropriate techniques exist to prevent unauthorized access to data files but that evidence existed that the techniques were not always applied when it would have been appropriate to do so. According to an NBS Computer Service Division official, the Bureau has acted to inform its staff about security requirements and the computing facility has prepared a form requiring the user to specify security measures.

## COMMERCE'S EFFORTS TO IMPROVE ITS INTERNAL CONTROL EVALUATION PROCESS

During its second-year efforts to evaluate internal controls, Commerce acted to correct problems in its evaluation process that we identified in our report on Commerce's first-year implementation of FMFIA.[1]

In response to concerns we raised during our audit of Commerce's first-year implementation of FMFIA that important activities within large assessable units and field office activities were not assessed, Commerce issued guidelines in

[1]RCED-84-133, June 22, 1984.

December 1983 on segmentation to its bureaus and offices. The guidelines, while pointing out that there is no one best way to divide activities into assessable units, provided general criteria for bureaus and offices to follow in segmenting their activities. For example, the guidelines stated that the greater the degree of autonomy individual offices have, the greater the likelihood that they should be defined as separate units. Commerce requested that its bureaus and offices complete segmenting their activities by January 1984. Commerce increased its number of assessable units in 1984 to 507 from the 306 that existed in 1983 by defining smaller units and increasing the number of field offices involved in the process.

For example, the National Weather Service had an assessable unit in 1983 entitled "warning and forecasts preparation." In 1984 NWS divided this function according to the different activities carried out under the functional area, including public weather, hydrologic forecasting systems, aviation weather, marine weather, central guidance, severe weather, and the National Hurricane Center. The Bureau of the Census increased its field office involvement in the assessment process by requiring that each of its 12 regional offices conduct vulnerability assessments.

In March 1984 Commerce also issued revised guidelines for conducting vulnerability assessments. The guidelines responded to concerns we raised during our audit of its first-year implementation of FMFIA as well as OMO's evaluation of Commerce's initial efforts in conducting vulnerability assessments. These concerns were that the assessment documentation did not explain the basis for the assessment ratings and that Commerce had not assessed important ADP activities. The new guidelines require managers to document the rationale for their conclusions about the adequacy of controls. In recognition of the need to assess ADP controls, Commerce included ADP in its guidelines as one of 15 functional areas that should be assessed during the 1984 vulnerability assessments. Commerce and its bureaus' internal control staffs conducted training sessions for their managers to familiarize them with the revised vulnerability assessment guidelines. During fiscal year 1984, Commerce completed vulnerability assessments on its 507 assessable units, including assessments of 10 of its 13 major ADP centers. At the completion of the assessments, OMO and the Inspector General scheduled quality assurance evaluations of about 20 percent of the completed assessments.

In our report on Commerce's first-year efforts in implementing the FMFIA, we reported that Commerce did not conduct internal control reviews of major program or administrative areas. In June 1984 Commerce issued guidelines for prioritizing assessable units for internal control reviews. The guidelines state that, in prioritizing assessable units for internal control reviews, managers should consider not only the unit's vulnerability rating but also the unit's budget, number of employees, and prior reviews such as audits conducted by the Inspector General. During fiscal year 1984 Commerce received internal control review plans from its bureaus and offices. In May 1985 an OMO official told us that Commerce had approved the plans but was negotiating with one bureau to include an internal control review of a program area. During 1984 Commerce's bureaus and offices completed 23 internal control reviews. These reviews covered a variety of program areas including grants and loan programs, debt collection, research, data security, and procurement.

We also stated in our report on Commerce's first-year efforts that it had not established a formal tracking system to monitor the status of corrective actions. Commerce's guidelines for the internal control evaluation process state that tracking systems should be established to track the correction of weaknesses disclosed during the evaluation process. In December 1984 OMO established an automated system to track the status of recommendations contained in internal control reviews throughout Commerce. The system lists the name of the bureau or office that conducted the review, the title of the review, the recommendations, the actions necessary to implement the recommendations, the current status of the actions (i.e., completed, in process, pending further action, or no action taken), and the date the action was completed. The department-wide system is to be kept up to date through quarterly reports from Commerce's bureau and offices. In April 1985 an OMO official told us that his office had begun incorporating in the department-wide tracking system corrective actions recommended in the 1984 vulnerability assessments and actions needed to correct material weaknesses included in the Secretary's 1984 report to the President and the Congress on the status of Commerce's internal controls.

Commerce's guidelines for internal control evaluations also require that its bureaus and offices establish tracking systems to support the components' annual statement to the Secretary about the adequacy of its internal controls. Officials in each of Commerce's major bureaus and offices told us that they track corrective actions either through a formal automated system that monitors the status of corrections on a regular basis or through an informal manual system that monitors the status of corrective actions on an as-needed basis.

## CONCLUSIONS

Commerce has either started or planned measures to correct weaknesses identified during the first- and second-year FMFIA process. As Commerce recognizes, additional efforts are needed to correct weaknesses.

Commerce has also acted to correct problems that existed in its evaluation process in 1983. Chapters 3 and 4 of this report point out that Commerce needs to make additional changes and refinements in its process in order to ensure that it fully evaluates its system of internal controls.

# CHAPTER 3

# COMMERCE NEEDS TO IMPROVE ITS VULNERABILITY ASSESSMENTS

Despite Commerce's actions to improve its evaluation process during fiscal year 1984, Commerce's vulnerability assessments did not fully identify and describe the significance of risks inherent in its activities because (1) Commerce used forms to conduct assessments that did not always lead managers to identify and describe the significance of risks that are specific to their activities and (2) Commerce's managers did not completely assess their activities, especially those related to ADP. Consequently, Commerce lacks confidence in the reliability of the assessments as the basis to schedule internal control reviews of its most vulnerable areas.

Commerce officials recognize these problems and in January 1985 told us they are considering actions to correct them. Most notably, Commerce is considering requiring that managers define their specific risks and controls for each assessable unit prior to conducting its next round of vulnerability assessments. Commerce officials believe this approach will help internal control reviewers by more completely defining internal control techniques that should be tested. We agree and believe managers should define their risks and controls as part of the evaluation process.

## VULNERABILITY ASSESSMENT METHODOLOGY NEEDS TO BE IMPROVED

Our evaluation showed that Commerce needs to improve its vulnerability assessment methodology so that managers can efficiently identify and describe the significance of specific risks associated with assessed programs and functional activities, and thereby improve the assessments' reliability as the basis to schedule internal control reviews of Commerce's most vulnerable areas. Although its vulnerability assessment process closely followed OMB's guidelines, Commerce officials, including the Chief of OMO's Management Control Division and the Inspector General, have concluded that the forms used by Commerce to conduct assessments did not lead managers to always identify risks unique to their activities. According to Commerce officials, the numerical scoring methodology for the assessments also obscured the significance of risks. About one third of the managers we contacted told us that either they had difficulty in applying Commerce's generalized assessment forms to their activities or commented about the averaging effect of the numerical scoring system.

## Commerce's assessment methodology parallels OMB's guidelines

Commerce, in developing its methodology for conducting vulnerability assessments, drew heavily on OMB's guidelines. OMB suggests that agencies conduct vulnerability assessments through a three-step process that asks managers to consider 27 factors in determining vulnerability. Specifically, OMB guidelines suggest that managers

--Analyze the general control environment by considering elements such as management attitude, organizational structure of the unit, policies and procedures, and ADP considerations.

--Analyze the inherent risk of the unit by considering elements such as the unit's purpose and characteristics, budget level, impact outside the agency, and special concerns.

--Conduct a preliminary evaluation of internal controls to determine their compliance with the GAO general and specific standards for factors such as competent personnel, internal control objectives, internal control techniques, and separation of duties.

Commerce developed a series of standard forms incorporating each of the elements suggested by OMB and used these forms to conduct assessments throughout the agency. In most cases, Commerce elaborated on OMB's suggested elements by providing additional factors that its managers had to assess under each element. For example, in its form assessing inherent risk, Commerce listed a series of activities under purpose and characteristic of the unit, such as handling cash receipts or handling valuable, sensitive, proprietary, or classified data. Managers assigned a numeric rating to each factor based on the extent to which their units were involved in the factor being assessed. For example, if the unit handled major amounts of cash, then managers would assign a high-risk value; if it handled a moderate amount of cash, they would assign a moderate-risk value; and if it handled small amounts of cash, they would assign a low-risk value.

Commerce managers summarized the results of their assessments by averaging the numerical ratings they assigned to the various factors. The managers totalled the numerical averages of their assessments for the general control environment, inherent risk, and preliminary evaluation of internal controls in order to determine their overall vulnerability rating. Managers rated their units as having a high, moderate, or low vulnerability on the basis of where their numeric rating fell within predetermined ranges of these degrees of vulnerabilities. Managers could override the numeric rating and assign a moderate or high vulnerability if they believed that conditions existed within their units that warranted a higher rating than resulted from the assessment. Of Commerce's 507 assesssment units, managers rated 294 units as having low vulnerability, 211 units as having moderate vulnerability, and 2 units as having high vulnerability. Managers assigned both of the high vulnerability ratings by assigning a higher vulnerability rating to the assessable unit than was indicated by the numerical score that resulted from the assessment.

Assessment methodology does not completely describe the significance of risks

Commerce managers in commenting on the vulnerability assessment methodology to the Department's OMO and to us criticized the following areas of assessment methodology:

--the paperwork volume, which included 22 pages for each assessment, was burdensome;

--risks and controls specific to the units being assessed were not always elements that are assessed in the general forms; and

--the numerical averaging obscured the significance of specific risks.

For example, the Internal Control Coordinator, International Trade Administration, in commenting on the process, pointed out that the numerical rating process used to rank vulnerabilities was "artificial and not particularly advantageous." She also pointed out that the questions asked in the forms to evaluate internal controls were ambiguous and difficult to interpret.

Twelve of the 37 managers who conducted 43 assessments that we evaluated told us that they had difficulty to varying degrees in applying factors contained in the forms to their activities or commented about the averaging effect of the numerical scoring system. (See p. 24 for a discussion of comments made by managers who conducted three additional assessments about the applicability of the forms to ADP activities.)

For example, the manager who assessed NOAA's National Weather Service equipment replacement program told us that the assessment forms are a series of unrelated questions that do not define risks in terms of their impact on the mission of an agency's program. He stated, as an example, that the Weather Service does not have national guidance for maintaining all its equipment systems. He said that it is important to know how equipment is to be maintained in order for the equipment replacement program to store replacement parts so that they are available when needed. Although this official had indicated that policies and procedures for the equipment replacement program needed to be improved on the assessment form, he did not believe that the forms brought out the significance of the risk of not having complete policies and procedures in terms of its effect on the mission of the replacement program.

In another case, we noted that Commerce's assessment of its property management function resulted in a low vulnerability rating even though Commerce lacks a property management system and it was reported as a material weakness by the Secretary in 1983 and 1984. The manager had assigned high-risk values associated with the custody of property and requests for procurement, but these high-risk values were averaged with other factors that had low-risk values to drive the overall numerical vulnerability rating to a low rating. We believe that the property function warranted a higher rating because of Commerce's lack of a personal property system and the associated lack of control over the size of inventories and inaccurate inventory records that the Secretary noted in his 1984 report.

As noted earlier, some managers overrode the numerical ratings in order to reflect different degrees of vulnerability resulting from risks and controls specific to their units. For example, EDA's Acting Deputy Assistant Secretary for Finance exercised a management override and raised the vulnerability rating of his assessable unit from moderate to high because he did not believe that the assessment reflected the risks associated with phasing out the agency, including staff morale and establishing workloads beyond the ability of employees to control. Similarly, the assessing officials increased the vulnerability rating of Commerce's payroll services from the moderate rating that was derived through the assessment forms to a high rating because known "weaknesses are so great that these services must be considered highly vulnerable regardless of the rating. . . ."

The Assistant Administrator, National Marine Fisheries Service, NOAA, also expressed concerns about the vulnerability assessment methodology in a May 1984 memorandum to the Deputy Administrator, NOAA. The Assistant Administrator stated that the Fisheries Service experienced the following problems in completing the forms:

--"The process implies that all factors which are being analyzed have equal weight. For example, there is only one factor which addresses enforcement vulnerabilities. For our enforcement program assessment, the low risks associated with the majority of the other risk factors (which are very relevant) result in a rating which is artifically low. Conversely, for some of the other units the formula approach resulted in higher ratings than I believe are appropriate.

--"Many risk and control factors relevant to Fisheries programs are not treated in the forms. For example, the overriding control factor in the fishery management planning process is recurring mandated public scrutiny. The forms do not provide a means for either reflecting this control or its relative weight and importance.

--"The forms process tended to result in all the ratings being clustered together with little appreciable differences. Our formula derived ratings ranged from 3.5 to 5.7. This limited degree of differentiation was not very useful.

--"The forms assume risk values which I believe are not necessarily appropriate. For example, a decentralized program is assumed to have a higher risk than a centralized one. Fisheries recently moved towards decentralization of the fishery management process in order to decrease our vulnerability to inefficiency."

The Assistant Administrator concluded that the assessment forms were useful in terms of suggesting areas to consider but that the final assessment ratings should not be based solely on the "pre-determined general purpose factors." The Assistant Administrator exercised his override in 18 of 22 cases to readjust the ratings that resulted from the forms methodology. Additionally, this official required that each of his managers prepare narrative abstracts for their assessments that

--described the mission of the program or function being assessed,

--described the specific risks associated with the units carrying out the program or function,

--described specific controls over those risks, and

--summarized the overall vulnerability on the basis of these factors.

## Commerce's quality assurance evaluations of vulnerability assessments

Commerce issued draft guidelines for its vulnerability assessment quality assurance program in June 1984. The draft guidelines specify the responsibilities of the bureau and Department managers who conduct and review the quality of the assessments. The Management Control Division, OMO, selected about a 10-percent sample of the assessments, as specified in the guidelines, and evaluated the assessments in order to determine, among other things, whether the questions asked on the assessment forms were clear and easily understood and whether answers to the questions were consistent with the overall mission of the assessed unit and with audit findings.

The Chief of OMO's Management Control Division told us that their quality assurance evaluations showed that the assessment forms did not lead managers to define specific risks in the assessment. For example, OMO evaluated the National Weather Service's assessment of its upper air observations program and found that the assessment had not disclosed safety risks associated with the program's use of hydrogen gas in weather balloons. An Inspector General's report on the Weather Service's upper air observation program issued after the assessments stated that "A combination of lax safety attitude, inadequate safety procedures, unrealistic training and infrequent regional safety checks have created an increased danger of accidents or injury." The OMO evaluator concluded that these areas were not addressed in the assessment because they did not seem "to fit the assessment format." In another case the OMO evaluator who reviewed the Bureau of the Census' Denver Regional Office assessment concluded that "In many instances, the questions were viewed too narrowly or certain questions answered without adequately considering the changes/risks that accompany the decennial census cycles."

According to documentation prepared by OMO staff, 11 of 28 assessing managers either criticized or suggested changes to the assessment methodology in terms of interpreting questions asked in the forms and/or applying them to their activities. For example, one manager suggested changing the instructions or process to a more programmatic application. Another manager suggested to the OMO staff that the assessment methodology provide space to record problems not covered by the forms. The Chief of OMO's Management Control Division told us that Commerce does not intend to assure that internal control reviews are planned on the basis of the assessments because the vulnerability assessment rankings are not indicative of programmatic and administrative risks.

The Inspector General also evaluated 10 percent of the vulnerability assessments and concluded in his year-end report to the Secretary that although Commerce conducted its internal control evaluation process in accordance with OMB guidelines, the vulnerability assessment process did not lead managers to identify risks in major program areas.

The Chief, Management Control Divison, OMO, told us in January 1985 that Commerce did not require its managers to reassess their activities in cases where program risks were not identified because

--Commerce had not revised the forms and there would be little value in using the same forms to reassess activities and

--Commerce is considering a different approach to assess controls.

Specifically, the Chief of OMO's Management Control Division told us that his staff is considering recommending to the Assistant Secretary for Administration that Commerce direct its efforts toward defining the risks and controls for each assessable unit. He stated that such an approach would precede the next round of vulnerability assessments and would facilitate the conduct of internal control reviews by identifying specific techniques that should be tested during the reviews. This official also stated that his office would work closely with program managers to define risks and controls.

The assessment methodology did not include complete criteria to assess ADP controls

Commerce's methodology for conducting vulnerability assessments did not include complete criteria for evaluating ADP general and application controls. OMB's guidelines required agencies to consider these controls during assessments. General controls apply to the overall management of the ADP function in an agency and are designed to ensure effective and efficient use of ADP resources. For example, general controls include controls designed to ensure the security of the data processing facility. Application controls are designed to ensure the quality of data input, the integrity of data processing, and the validation of output.

Commerce's assessment forms contain criteria for evaluating data security and the quality and timeliness of output. Commerce did not provide criteria for evaluating general controls over systems' hardware design, data center operations, or software design. Similarly, Commerce's assessment forms did not provide managers the criteria necessary to evaluate controls over data origination, input, or processing.

Managers of three data processing facilities we visited did not consider the criteria for evaluating ADP contained in Commerce's forms adequate to evaluate their activities. The vulnerability assessment for one of the three data centers did not identify known risks and weaknesses, in part, we believe because Commerce's criteria for assessing ADP did not lead the manager to disclose it. Specifically, the Bureau of the Census Computer Service Division did not list risks or weaknesses in its vulnerability assessment that were disclosed in a risk analysis it conducted on security pursuant to OMB Circular A-71. The vulnerability assessment and the risk analysis were done at about the same time. Commerce did not include any ADP criteria in its assessment forms that would have led the manager to disclose the risks disclosed in the risk analysis.

## ACTIVITIES NOT ASSESSED

Although Commerce improved its segmentation in 1984, as discussed in chapter 2, by identifying smaller and more manageable assessable units than previously existed, we found that managers did not always assess all activities that are important in carrying out the units' missions. Specifically, we found that in 15 of the 46 assessments we reviewed, managers had not assessed all activities that were important to their assessable units, especially those that were ADP-related.

OMB's guidelines state that there is no single method to divide an agency into assessable units, but emphasizes that an agency's inventory of assessable units should encompass the entire agency and the individual unit should be "appropriate in nature and size to facilitate the conduct of a meaningful vulnerability assessment."

Unless an agency assesses all its activities, it may not identify high vulnerabilities, and/or the priority for scheduling internal control reviews may not be appropriate. Commerce managers did not assess all their activities because

--Commerce's guidelines on segmentation do not clearly state how ADP is to be segmented and who is responsible for assessing ADP-related controls and

--they were uncertain, in some cases, about how to divide their activites into assessable units or who was responsible for assessing specific activities.

### ADP-related activities not assessed

Managers did not completely assess risks and internal controls associated with their ADP activities, in part, because Commerce guidelines are unclear about how managers should assess ADP activities. ADP is important in carrying out the mission of 24 of the 46 assessable units we reviewed. Managers who assessed the vulnerability of 11 of the 24 units told us that they did not assess ADP controls for a variety of reasons, including

--they were uncertain about who was responsible for assessing ADP,

--they did not consider ADP as part of the assessable unit, or

--they were unaware that ADP was an area of emphasis for the assessment.

OMB has advised agencies that they are required to consider ADP activities when scheduling vulnerability assessments because automation often introduces new or different elements of risk. OMB emphasizes that ensuring that proper controls are in place in the overall management of ADP functions and in controlling the quality of data input, the integrity of data processing, and the verification of output are important elements of the internal control program.

Commerce guidelines for segmenting the agency list ADP as one of the 15 general administrative functions that "should be covered in the assessable units selected." The guidelines define the ADP function as including physical control over computer hardware and software and all policies and procedures for operating ADP systems, such as systems documentation, operating logs and controls, file protection and retention, input controls, output controls, and program controls.

Commerce's guidelines did not provide any additional information about how ADP should be covered in assessable units selected. Specifically, Commerce did not provide guidance for determining

--when ADP systems and their applications should be defined as separate assessable units and

--how program managers should consider ADP when it is not defined as a separate assessable unit but is important to the program being assessed.

We believe that Commerce's lack of guidance in these areas resulted in managers not completely assessing their ADP activities.

For example, the National Climatic Data Center is NOAA's largest environmental data center and is responsible for the National Archives of Weather Data for the United States. The Climatic Data Center annually receives, processes, and archives over 30 million meterological observations. The Climatic Data Center depends totally on ADP systems to store the archives and to prepare general and specific publications such as studies on the use of climatic data products and applications to improve energy development and conservation and food production. NOAA had approximately $10.5 million budgeted during fiscal year 1984 for climatic data services. Additionally, the National Oceanographic Data Center, which is the world's largest repository of oceanographic data, relies on ADP systems to store data and to prepare data, summaries, and tailored products on oceanographic conditions. NOAA had $5.6 million budgeted during fiscal year 1984 for ocean data services.

Climatic and oceanographic data are keypunched into the ADP system, and quality controls are used to minimize data entry errors. The data, once entered in the ADP system, is manipulated by computer programs to develop numerous products desired by the environmental data centers' customers. Program controls are needed to ensure the development of quality products from the data. Managers who assessed the Climatic and Oceanographic Data Centers' activities told us that they did not assess ADP controls over data entry or processing because they did not consider these activities as part of the centers' assessable units.

Additionally, the National Climatic Data Center managers told us that the greatest risk at the Center is security of the building, which is a historical landmark open to the public. There was no assessment of controls over ADP security risks because it was not considered part of the assessable units. The internal control coordinator for the environmental data base centers told us that ADP should have been included in the vulnerability assessments.

In another case, we noted that the manager of the Western Administrative Support Center's Management Analysis and Systems Division did not assess its ADP controls although the division operates the administrative support center's ADP support systems. The Western Administrative Support Center located in Seattle, Washington, provides centralized administrative service to 211 field locations of 6 Commerce bureaus and offices located throughout 8 western states. Additionally, the Management Analysis and Systems Division had lead responsibility for the Center's Personnel Action Tracking and Transmission System. The system was designed to track personnel actions and to allow remote entry of personnel actions. The assessing manager told us that his greatest risk was associated with designing automated systems to meet users' needs. This risk was not identified in the assessment. The assessing manager told us that he did not assess the division's ADP controls; instead, he assessed only the management of the division.

Significant risks and vulnerabilities were not identified in the division's assessment because the manager did not assess ADP controls. Specifically, we noted that Commerce's evaluation of another regional support center (the Mountain Administrative Support Center), which uses another version of the Personnel Action Tracking and Transmission System, showed that the Western Administrative Support Center, which handled modifications to the system, was unable to modify the system as requested by the Mountain Administrative Support Center. The evaluation concluded that there was a significant degree of dissatisfaction with this system as well as other centralized automated systems, thus raising questions about their usefulness and efficiency. The evaluation also pointed out that the responsibility for evaluating and improving the automated management systems used by the regional administrative support centers was not clearly assigned. In December 1984 the Deputy Director of the Western Administrative Support Center told us that the Center had shut down its Personnel Action Tracking and Transmission System because it was not cost-effective.

## Other activities not assessed

In 6 of the 46 assessments we reviewed, we noted non-ADP activities that were not assessed because (1) the assessable units were too broad and managers had not focused their attention on assessing the vulnerabilities of discrete activities, (2) the segmentation did not include major activities of the units, or (3) responsibility for assessing the activity was not clear.

For example, NOAA's National Ocean Service defined its Atlantic and Pacific Marine Centers as separate assessable units. These Centers carry out many different administrative and programmatic activities associated with operating NOAA's fleet of 22 active vessels engaged in oceanographic, hydrographic, and fishery research activities and in processing all types of oceanographic and hydrographic data. The Centers provide docks, maintenance, stores, supplies, and repairs for NOAA vessels and data processing for the information the vessels collect. The Centers' budgets during fiscal year 1984 for ship operation and maintenance totalled approximately $38.77 million.

According to the Deputy Director of the Atlantic Marine Center who assisted in preparing the assessment, it is too large an organization to be assessed as a single unit. He stated that the Atlantic Marine Center should be segmented into several units on a functional area basis. The Deputy Director concluded that because the Atlantic Marine Center is too large to be assessed as a single unit, the assessment is superficial and of little value to management. He explained that it was extremely difficult to generalize across the center's various functional areas and that significant vulnerabilities may not be readily identified through an assessment of such a large unit.

The Deputy Director told us that the Atlantic Marine Center's most vulnerable area is the use of imprest funds aboard NOAA vessels. He stated that imprest funds are used to purchase fuel, groceries, repair parts, and supplies. NOAA's larger vessels carry up to $300,000 in their funds. The Deputy Director told us that the day-to-day operations of NOAA ships were generally not included in the assessment because time was not available to include the ships' personnel in the process. AMC assessed imprest fund risks from the context of its management oversight of imprest funds but not the day-to-day operations of the funds on-board NOAA vessels.

The Department's OMO reviewed the Atlantic Marine Center's assessment as part of its quality assurance reviews of vulnerability assessments and concluded that the assessment was based on the center's overall management instead of specific functions such as finance, personnel, and procurement. OMO staff concluded that the Center should be resegmented by functional areas, such as finance and procurement, and that the assessment should be redone. On the basis of our review of the Atlantic Marine Center's vulnerability assessment and our discussions with its Deputy Director, we agree that the Center should be resegmented and the assessment redone.

The budget officer of the Pacific Marine Center prepared the assessment for the Center. This official conducted the asessment because he was the one official at the Center who attended training on how to conduct assessments. According to Pacific Marine Center officials, other Center managers were unable to attend training because they were busy with other priorities. Although the Pacific Marine Center was rated as having a low vulnerability, this official believed that program vulnerabilities were probably overlooked because the Center did not involve more managers in the assessment. An Inspector General's audit of one of the Pacific Marine Center's branches provides support that vulnerabilities may have been overlooked. The audit, conducted after the vulnerability assessment, showed that the branch lacked internal controls over the approval and use of overtime payment and compensatory time. The Center's assessment did not disclose any vulnerabilities associated with the approval and use of overtime payments and compensatory time. We believe that the likelihood that the Center's assessment would disclose the above vulnerability was diminished because the assessment was not conducted by officials carrying out the assessed activities.

The internal control coordinator for the National Ocean Survey told us that the Survey had decided to identify each Center as a unit and not to define specific activities of the Centers as units because (1) it wanted to keep center management involved in the assessment and (2) it wanted the assessment to be concise. This official stated that guidelines for segmenting were not clear about how activities should be divided for the assessment. The internal control coordinator stated that the Centers should be segmented according to their activities for the next assessments.

In addition to the above, we noted during our review of bureaus' segmentation other instances where assessable units were too broad to facilitate a complete assessment of activities. For example, the Fisheries Service segmented its activities along program lines. The Fisheries Service's regional offices and centers were not defined as assessable units. Accordingly, field office managers did not assess vulnerabilities that may exist in the day-to-day general administration of their field offices. Office of Inspector General audits and inspections of Fisheries Service's field offices' controls over imprest and confidential funds issued during fiscal year 1985 found weaknesses in these controls indicating that vulnerabilities existed that were not identified in the assessments. A Fisheries Service internal control coordinator told us that he conducted an assessment on the agency's management but agreed that field offices should have been included in the assessment process.

The Chief of OMO's Management Control Division told us that he agrees that Commerce needs to work with program officials to better define assessable units. The Chief told us that Commerce has worked with NOAA's Office of Oceanographic and Atmospheric Research to identify its individual laboratories as assessable units. This official told us that he plans to discuss with officials from the National Bureau of Standards, NOAA's Atlantic and Pacific Marine Centers, and the National Weather Service how to resegment and define smaller assessable units.

Regarding ADP activities that were not assessed, the Chief, Management Control Division, acknowledged that Commerce had not emphasized ADP during the 1984 assessments because of time constraints and lack of resources. Commerce plans by early fiscal year 1986 to provide additional guidance to its bureaus about how ADP centers should be assessed, according to this official. The official told us that Commerce does not have a complete inventory of its automated application systems but plans to establish an inventory in response to an OMB request for such information. After the inventory is established, Commerce will determine who is responsible for assessing the application systems and provide guidelines for assessing them.

## CONCLUSIONS

Although Commerce's vulnerability assessment process closely followed OMB's guidelines, the assessments did not completely identify risks or describe their significance because

--the forms used to conduct the assessments were general and did not always lead managers to identify and describe the significance of risks specific to their activities,

--the numerical averaging of assessed factors obscured the significance of risks, and

--the forms did not provide complete criteria for assessing ADP controls.

Additionally, because Commerce did not provide clear guidelines for determining when ADP should be a separate assessable unit, Commerce did not fully assess ADP controls. Accordingly, the assessments' ratings are of questionable reliability as a basis for scheduling internal control reviews of Commerce's most vulnerable areas.

## RECOMMENDATIONS

We recommend that the Secretary of Commerce direct the Assistant Secretary for Administration to revise Commerce's segmentation guidelines to specify criteria for determining when ADP should be considered a separate assessable unit. We also recommend that the Secretary of Commerce direct the Assistant Secretary for Administration to

--require managers to identify specific risks and controls associated with their activities on their vulnerability assessment forms;

--require that managers, in determining a numerical average for their vulnerability, weight identified risks according to their importance to the assessed unit; and

--provide criteria for evaluating ADP activities, including hardware and software design, data center operations and data origination, input, and processing.

## AGENCY COMMENTS

Commerce expressed concern regarding our recommendation that managers, in determining numerical averages for their vulnerability, weight identified risks according to their importance to the assessed unit. Commerce stated it was concerned "because of the number of occasions on which quantitative schemes have been attempted for assessing vulnerabilities and the staff time invested in such efforts." Commerce suggested that GAO determine whether quantification adds to the managers' decisions about subsequent actions and, if so, recommend a methodology that is simple and reliable.

In our opinion, numerical scores used in vulnerability assessment ratings are useful in establishing priorities for subsequent action, such as determining the schedule for internal control reviews on the basis of the vulnerability rankings. We believe the weighting of identified risks may be useful in overcoming the averaging effect of the numerical scoring system that Commerce employed in its 1984 assessments and would enable managers to show in the numerical score their subjective judgment about how significant the risks that they identified are in comparison to all other rated factors. In advocating weighting of identified risks, we are not calling for an extensive, time-consuming effort on the part of Commerce's managers. Rather, we believe Commerce could simply require managers to assign a numerical value based on their judgment to risks that they believe significantly affect their overall vulnerability so that these risks carry greater weight than other assessed factors in computing their vulnerability ratings.

# CHAPTER 4

## INTERNAL CONTROL REVIEWS NEED IMPROVEMENT

The Secretary of Commerce concluded in his 1984 report to the President and the Congress on the adequacy of internal controls that Commerce had not completed sufficient testing of internal controls to fully assure that they achieve the objectives specified for them by FMFIA. We noted that Commerce's internal control reviews did not always completely test controls and that OMO and Inspector General officials are concerned that major bureaus did not conduct other acceptable testing through alternatives to internal control reviews.

Commerce officials are taking various actions to increase its testing of internal controls. We believe that Commerce can further improve its effort to test controls by directing a portion of its quality assurance evaluation toward ensuring that sufficient tests are planned as part of planned internal control reviews.

### OMB GUIDELINES RECOMMEND THAT AGENCIES TEST INTERNAL CONTROLS

OMB's guidelines define an internal control review as a detailed examination of internal controls to determine whether adequate controls exist and are implemented in a cost-effective manner to prevent or detect the occurrence of potential risks. OMB recommends six steps for conducting an internal control review, including

- --identifying the processes or related activities to be reviewed;
- --analyzing the environment in which the process or related activities are carried out;
- --documenting how the process or related activities function by identifying things, such as procedures, personnel, forms, and records, that are maintained;
- --evaluating the process or related activities by determining whether internal control objectives have been defined for them and techniques or methods for achieving those objectives are in place;
- --testing to ensure that controls are in place and functioning as intended; and
- --reporting on the results of the review.

OMB has advised agencies that other alternatives to internal control reviews exist, such as management reviews and audits, that they can use to improve and evaluate internal controls. OMB has stated that whatever alternative agencies select, it should determine whether existing controls are operating as intended and are effective.

Commerce's internal control evaluation guidelines parallel OMB's guidelines and require that internal control reviews include testing of controls.

COMMERCE'S INTERNAL CONTROL REVIEWS DID NOT ALWAYS FULLY TEST CONTROLS

During our evaluation of the internal control reviews that Commerce completed in 1984, we found that the reviews did not always test internal controls. Specifically, we evaluated 10 of the 23 internal control reviews completed during calendar year 1984 and found that one or more of the following problems existed in 6 of the reviews we evaluated:

--Two reviews did not test controls;

--Two reviews that did include testing were, in our opinion, narrow in scope and did not test controls of major activities associated with the area being reviewed;

--Two reviews did not test controls over a significant risk in each of the reviews; and

--Four review teams did not completely document all tests conducted and information they considered so that an independent evaluator could understand how conclusions were reached as suggested by OMB.

OMB guidelines state that testing is the final step in an internal control review that determines whether necessary control techniques are functioning as intended. Although incomplete testing may not invalidate the recommendations of an internal control review, it does reduce the reliability of the review in providing assurance that control weaknesses have been identified.

We found that internal control review teams did not test controls in two of the reviews we evaluated. In one case, the National Marine Fisheries Service did not test controls during its review of its foreign fishing fees billing and collection activities. According to the internal control review report, these activities involved approximately $40 million annually. The review team relied on interviews with regional and headquarters personnel to describe how bills are prepared and fees collected. The review team did not test to determine whether controls were actually functioning as they were described during the interviews. The review team stated in its report that the study area was not amenable to a control test. We noted areas, however, where the team could have tested controls to ensure that they were functioning as described during interviews. For example, the team could have tested to ensure that the financial management system appropriately established an accounts receivable when bills were issued and that the accounts were appropriately aged to ensure proper collection actions. The internal control review report noted that evaluation of the financial management system was beyond the scope of the review and stated that, because such systems are specifically designed for financial monitoring and control, the review team assumed controls were adequate. In our opinion, controls such as the establishment of accounts receivable and aging of accounts are primary controls in a billing and collection activity and should not be considered outside the scope of the internal control review that is intended, as discussed in the review report, to evaluate controls ". . . from the point where the U.S. is owed fees, through their billing and collection, until fees are paid." The Fisheries Service internal control coordinator, in commenting on the review's lack of testing, told us that it is difficult to convince program managers that tests are important to ensuring that controls are functioning properly.

We also found that two internal control reviews that did include testing were, in our opinion, narrow in scope and did not test controls over important activities associated with the area that was reviewed. For example, NOAA conducted an internal control review of its Washington Field Finance Office's cash control function. We found, however, that the review did not test major activities in NOAA's cash control system because it focused on payments processing and safeguarding cash receipts at the Washington Field Finance Office, which was one of NOAA's four field finance offices. The review did not include tests of administrative and accounting controls over NOAA's imprest funds, cash receipts by its central collection agent, cash advances to grantees, or billings and collections because these activities, according to internal control reviewers, were not important responsibilities of the reviewed field office. Consequently, the review does not provide NOAA with assurance that elements that, in our opinion, are important to its cash system are adequately controlled. The internal control review report states that the review focused on internal controls over recording, certifying, and safeguarding payment documentation and safeguarding cash receipts at the finance office. Internal control team members told us that they did not know why NOAA limited the review to one field finance office. They stated that they would have expanded the scope of the review if they had had more time and staff resources having the necessary expertise to conduct the review. Officials in NOAA's Office of Budget and Finance agreed with us that the review did not completely test NOAA's system of internal controls over cash because it did not include cash control activities such as imprest funds and debt collection.

In two other reviews that tested controls over risks, we identified in each review a risk that we consider significant for which the review team did not test controls. For example, we noted that the International Trade Administration, in reviewing its loan servicing activities, did not fully describe or test its controls for loan servicing. The internal control review team did not test controls to ensure

--proper reviews and approvals of loan modifications;

--follow-up of borrowers' actions that are necessary to bring their loans current; or

--proper accounting system controls, such as aging of accounts receivables.

An internal control reviewer told us that she had not been trained to conduct reviews and was uncertain about what should be tested. The internal control coordinator for ITA agreed that there were gaps in the testing.

ITA, in commenting on our draft report, stated that it had not overlooked accounting system controls but had intended to conduct a separate internal control review of these controls. ITA agreed that there was a need to conduct additional work on procedures used to follow up in cases in which problems are identified. Additionally, ITA stated that it has not found generalized training productive in training its staff to conduct reviews and, therefore, provides direct staff support to program managers in conducting internal control reviews.

OMB suggests and we agree that internal control reviewers should document the work conducted during the reviews so that an independent evaluator is able to understand how the review team reached its conclusions. We noted that in four cases the internal review teams had not completely prepared such documentation as interview write-ups or explanations of the extent of testing and results. For example, officials who conducted NOAA's cash control review told us that they tested to ensure that proper voucher reviews were made before payments were authorized. The team members did not maintain documentation to support the extent of testing or the results of the tests. In another case, we did not find documentation to support that the internal control review team, which reviewed controls over NOAA's provisioning of its ships with food, had selected transactions that were tested, conducted tests, or analyzed the results. It is impossible to evaluate the completeness of testing in the absence of documentation supporting that tests were conducted and their results.

Staff in the Office of the Inspector General evaluated six reviews that we did not evaluate. They found that

--two reviews did not test internal controls and

--two reviews did not identify all risks and did not completely test controls.

For example, the Office of the Inspector General evaluated Commerce's internal control review of elevator service in Commerce's main office building and found that the review team had not considered or tested controls to ensure that the contractor's maintenance of the elevators was adequate and safe. The Inspector General's staff considered adequacy of the elevator maintenance and safety the most important issue affecting elevator service. The Inspector General staff concluded that the internal control review team had not been adequately trained and misunderstood the concept of risk.

The Office of the Inspector General reported to the Secretary that he was unable in some cases to verify the adequacy of testing because managers had not retained supporting documentation. We noted that the Inspector General's staff found that documentation was not complete in four of the six reviews they evaluated.

## COMMERCE CONCERNED THAT BUREAUS DID NOT CONDUCT SUFFICIENT TESTING THROUGH ALTERNATIVES TO INTERNAL CONTROL REVIEWS

Commerce's bureau heads provided reasonable assurance statements to the Secretary at the end of fiscal year 1984 and based their assurance statements on a variety of activities including not only completed internal control reviews but also vulnerability assessments, management reviews, external peer reviews, audits, ADP security risk analyses conducted pursuant to OMB Circular A-71, management efficiency studies conducted pursuant to OMB Circular A-76, and management's personal knowledge of controls.

OMB guidelines provide managers with the flexibility to choose a variety of actions other than internal control reviews to improve controls. OMB has advised agencies, however, that whatever alternatives are selected should determine whether existing controls are operating as intended and are effective.

As indicated by the Secretary's year-end report, Commerce officials are concerned that the amount of testing of controls conducted during fiscal year 1984 did not support statements of reasonable assurance from bureau heads. The Inspector General reported in November 1984 to the Secretary that little evidence existed that the management evaluation processes, other than internal control reviews, cited by the bureaus to support their year-end statements included significant tests of controls.

According to the Office of the Inspector General official who reviewed Commerce's FMFIA efforts in 1984, the Inspector General's Office requested and reviewed reports prepared as a result of these other management evaluation processes from NOAA, the Bureau of the Census, NBS, and Economic Affairs and found that the reports did not, in their opinion, reflect that a significant amount of testing was conducted as part of the evaluation.

The Chief of OMO's Management Control Division told us that Commerce is concerned that testing did not always support assurance statements. For example, NBS had used external reviews of technical projects as part of its support for its 1984 reasonable assurance statement. An OMO official told us that his office discussed with bureau officials the use of peer reviews as an alternative to internal control reviews but determined that the peer reviews do not involve tests of controls.

The Chief of OMO's Management Control Division told us that his office is working toward ensuring that internal controls are sufficiently tested. First, OMO issued guidelines in September 1984 to its bureaus defining what is required to provide reasonable assurance during fiscal year 1985. The guidelines require bureaus to conduct a specified number of internal control reviews to test internal controls on the basis of organizational characteristics and the size of the functional areas' budget. The guidelines pointed out that even if no significant weaknesses had been identified, bureaus should conduct some internal control reviews to test controls each year on activities with high risks, large budgets, or that play the primary role in accomplishing the organization's mission objectives.

Second, the Deputy Secretary wrote in January 1985 to the heads of five of Commerce's major bureaus[1] stating that the Secretary and he accepted, with reservations, the bureaus' reasonable assurance statements for 1984 and are concerned that the amount of testing of controls did not support the statements. The Deputy Secretary asked each of the five bureau heads to ensure that his organization conducts a specified number of internal control reviews or equivalent testing of controls during fiscal year 1985 that is consistent with Commerce's guidelines for providing reasonable assurance that were issued in September 1984.

Third, the Assistant Secretary for Administration will track the bureaus' progress in completing internal control reviews to test controls and corrective actions of material weaknesses.

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[1]Economic Affairs, Census, EDA, the National Bureau of Standards, and NOAA.

Fourth, the Management Control Division is studying how alternative management evaluation processes can be used to test internal controls. The Director, OMO, told us Commerce believes that separate evaluation requirements of specific functions and programs should be combined where possible and that, where possible, internal controls should be tested as part of alternative management evaluation processes rather than tested as separate evaluations. For example, the Office is currently studying how Commerce should test internal controls when it conducts ADP risk analyses required by OMB. The Chief, Management Control Division, stated that Commerce has conducted management evaluations of four of its five regional administrative support centers but that the evaluation teams did not have a good checklist to evaluate controls. This official stated that his office will participate in Commerce's evaluation of the fifth center to determine how internal controls can be tested as part of the center evaluation.

Fifth, the Chief, Management Control Division, told us that his office is reviewing and commenting on the bureaus' plans to conduct internal control reviews over a 30-month period beginning in fiscal year 1985 to ensure that reviews to test controls cover major programs and administrative areas. We noted that Commerce has approved bureau internal control review plans that include major program and administrative areas that were not reviewed in fiscal year 1984. Specifically, the NWS plans to conduct a review to test its controls over weather forecasts and dissemination systems, three of five regional administrative support centers plan to conduct internal control reviews to test controls, and EDA plans to conduct reviews to test controls in its business loans and grants programs.

## QUALITY ASSURANCE REVIEWS NEEDED DURING THE PLANNING OF INTERNAL CONTROL REVIEWS

Commerce's Management Control Division, OMO, and the Office of the Inspector General evaluate internal control reviews for compliance with OMB's guidelines. Commerce's guidelines for internal control reviews do not specify how or when the quality assurance evaluations are supposed to be made or whether internal control review teams are required to correct problems identified during the evaluations.

Commerce's quality assurance evaluations during 1984 were, for the most part, conducted after the internal control review teams completed their work and prepared a report. According to an Inspector General official, internal control review teams are reluctant to do additional work after they initially complete their reviews and prepare a report in order to correct problems disclosed during quality assurance evaluations. For example, the Office of the Inspector General's auditor in charge of evaluating internal control reviews told us that he was unaware of any instance where an internal control review team did additional work to correct problems that the Inspector General staff found in the internal control reviews. We evaluated three internal control reviews where the Inspector General had previously disclosed problems, such as lack of testing, and found that the problems continued to exist.

The Chief, Management Control Division, told us that the Division has not conducted detailed evaluations of all completed internal control reviews because of staff limitations and other priorities. This official stated that if the Division or the Inspector General has a problem with a review and the bureau is unwilling to correct the problem, then Commerce will not consider the review completed, and the bureau cannot use the review toward fulfilling its commitment to conduct internal control reviews in order to provide reasonable assurance to the Secretary.

As discussed in the previous examples, internal control reviewers and other officials stated that testing was not conducted because of uncertainty about what should be tested, a lack of staff with expertise to conduct testing, and uncertainty about the need to test. We believe that Commerce can improve its internal control reviews by directing a portion of its quality assurance efforts toward evaluating internal control review plans in order to ensure that sufficient testing is planned and experienced staff is available to conduct the tests prior to the actual conducting of the tests. Such assistance and advice from experienced staff should help clarify what tests should be conducted and highlight staff constraints to conducting such tests.

The Chief, Management Control Division, told us that he agrees more effort is needed to ensure that internal control reviews are adequately planned. He stated that Commerce is revising its guidelines for conducting internal control reviews to direct internal control reviewers to obtain advice from internal control staffs in the bureaus, the Department, or the Inspector General in deciding what activities should be reviewed, in identifying risks and controls, and in planning to conduct tests of controls.

## CONCLUSIONS

We agree with the Secretary of Commerce that the Department has not completed sufficient testing of internal controls to ensure that they satisfy the objectives of FMFIA. Commerce is acting in several ways to ensure that sufficient testing is conducted in the future, including studying how alternative management evaluation processes can be used to test controls. Commerce has also prepared plans to conduct internal control reviews of some of its major administrative and programmatic activities that, if properly conducted, will provide the

Secretary with greater assurance about the adequacy of controls. We believe that actions such as these demonstrate Commerce's commitment to accomplishing the objectives of FMFIA. We believe that, in order to ensure that the internal control reviews are properly conducted, Commerce should direct part of its quality assurance evaluation efforts to ensuring that internal control review teams have identified all major risks and controls and plan sufficient tests prior to testing and completion of the review.

## RECOMMENDATION

We recommend that the Secretary direct the Assistant Secretary for Administration to ensure that her staff, or staff in the Office of the Inspector General or bureau internal control staffs, provide necessary assistance to internal control review teams by evaluating (1) the completeness of the risks and controls identified by the teams and (2) their plans to test controls before the controls are actually tested.

## AGENCY COMMENTS

Commerce stated that its revised guidelines for conducting internal control reviews "requests that Bureaus seek advice from the Assistant Secretary for Administration's staff or the Inspector General's staff to review the adequacy of inherent risks, control objectives and control techniques prior to testing." Commerce also pointed out that the revised guidelines "request bureau staff to seek advice on the amount and type of testing required." Commerce thought our recommendation that the Assistant Secretary ensure that risks identified by internal control review teams and their plans to test controls be evaluated prior to the conduct of the tests was misdirected. Commerce said that we should recommend that the bureaus follow guidelines and seek advice and assistance during the evaluation.

Although we agree that bureaus should follow Commerce's guidelines, we also believe that the uncertainty of internal control review team members about defining internal control risks and techniques and designing tests of controls warrants a quality assurance effort that not only makes assistance available but also actively seeks to provide assistance to internal control teams.

According to Commerce's Administration Order on Internal Management Control Systems, bureau-level managers are responsible for ensuring that internal control reviews are properly planned and conducted, and the Assistant Secretary for Administration is responsible for evaluating annual plans for internal control reviews and monitoring their progress. To assist the Assistant Secretary in carrying out her monitoring responsibilities, we believe that she should draw upon available internal control staffs in (1) her office, (2) the Office of the

Inspector General and (3) the bureaus to ensure that internal control review plans are evaluated prior to the testing of controls.

# CHAPTER 5

## COMMERCE HAS MADE PROGRESS BUT STILL NEEDS TO STRENGTHEN ITS ACCOUNTING SYSTEMS

Commerce reported to the President and the Congress that it completed in-depth reviews of two of its eight accounting systems in fiscal year 1984. On the basis of these reviews conducted by its Office of the Assistant Secretary for Administration and reviews and certifications made by the managers of the other six systems, the Secretary reported, as he did in 1983, that Commerce's accounting systems conform to the Comptroller General's principles and standards. The Secretary also identified eight instances of systems nonconformance that had not been previously reported, cited four deficiencies remaining from 1983 that had not been fully corrected, and stated plans, which generally appear reasonable, to correct these problems.

Although all system deficiencies of which we are aware were reported, we believe Commerce is not in a sound position to determine overall systems conformance to the Comptroller General's principles, standards, and related requirements,[1] because five of the eight systems were not adequately tested in operation to ensure they are operating as intended. In addition, the tests that were conducted on three systems did not cover some key aspects of the systems.

Nonetheless, Commerce has made progress in assessing its accounting systems' conformance with the Comptroller General's principles, standards, and related requirements, as required by Section 4 of FMFIA. During 1984 an automated system for monitoring corrective actions was developed, and a quality assurance evaluation process was implemented that included in-depth reviews conducted by Commerce's Office of the Assistant Secretary for Administration as a follow-up to the initial

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[1]The act states that agencies are to report on their systems' conformance with the principles, standards, and related requirements prescribed by the Comptroller General. The GAO Policy and Procedures Manual for Guidance of Federal Agencies contains the principles, standards, and related requirements to be observed by federal agencies. Specifically, title 2 prescribes the overall accounting principles and standards; titles 4, 5, 6, and 7 specify requirements governing claims; transportation; pay, leave, and allowances; and fiscal procedures, respectively. In addition, agency accounting systems must include internal controls that comply with the Comptroller General's internal control standards and related requirements, such as the Treasury Financial Manual and OMB circulars.

evaluations. However, additional improvements in the systems evaluations are needed to ensure that the act's objectives are met. In addition to testing the systems in operation, the bureaus need to maintain sufficient information on the results of their reviews, as specified in Commerce's system evaluation guidelines.

## COMMERCE REPORTS ACCOUNTING SYSTEMS CONFORM

Commerce has 8 accounting systems to account for the funds of its 11 bureaus and the Office of the Secretary. The two largest systems are those of NOAA and the Office of the Secretary, which together account for approximately 62 percent of Commerce's approximately $2 billion budget authority. Appendix II presents a schedule of Commerce's eight accounting systems and the bureaus and offices that are responsible for each.

Based on the results of in-depth reviews conducted by the Office of the Assistant Secretary for Administration, the Secretary reported to the President and the Congress in his 1984 year-end report that two major systems--NOAA and the Office of the Secretary systems--are in conformance with the Comptroller General's requirements. The Secretary also reported that on the basis of evaluations and certifications by the finance officers in each bureau, he believes that the remaining six systems conform. Further, the Secretary reported eight nonconformance items that Commerce identified as a result of its in-depth reviews and initial evaluations that were not found in 1983. The Secretary considered these nonconformance items serious enough to report, and Commerce has developed plans to address these areas. For example,

--Documentation and procedures for NOAA and the Office of the Secretary systems are inadequate and outdated. These two accounting systems process about one million transactions annually. Commerce plans to implement new accounting procedures and complete system documentation during 1985-86.

--The Office of the Secretary accounting system lacks adequate fund control techniques. Specifically, the system does not adequately keep track of obligations to prevent the overcommitment of funds. This system was responsible for keeping track of about $130 million in obligations during fiscal year 1984. Commerce plans to study and evaluate alternative approaches to ensuring adequate fund control.

--Leasehold improvements at NOAA are being charged to expense in the year the improvements are made, rather than capitalized as required by title 2 of GAO's Policy and Procedures Manual for Guidance of Federal Agencies. In fiscal year 1984 NOAA expensed approximately $15 million in leasehold improvements instead of capitalizing this amount over a 5-year period. As a result, expenses for NOAA are overstated in financial statements. Commerce plans to annotate the financial statements to reflect the leasehold improvements at NOAA that are not capitalized.

Correction of the other nonconformance items identified by Commerce primarily involves preparing written accounting and control procedures, and documenting or reprogramming systems.

With one exception, we believe Commerce's corrective action plans appear reasonable and, if properly implemented and managed, should address the nonconformance items identified by Commerce in 1984. We do not believe the corrective action plan relating to leasehold improvements adequately addresses the nonconformance item identified. As we discussed earlier, Commerce plans to annotate its financial statements with estimates on the net impact of expensing leasehold improvements rather than capitalizing them. However, this does not meet applicable leasehold accounting requirements and results in overstated expenses and inaccurate financial statements. In our opinion, Commerce must capitalize leasehold improvements at NOAA over the length of their useful service life as required by the Comptroller General instead of charging them to expenses.

## NONCONFORMANCE ITEMS IDENTIFIED IN 1983 NOT CORRECTED

Commerce reported five nonconformance items in 1983 relating to (1) the failure to conform to principles and standards relating to property, (2) the recording of certain advances to grantees as expenditures instead of assets, (3) the failure to properly document the payroll system, (4) the purchase of capital equipment without statutory authority, and (5) the maintenance of foreign operations accounts on a cash basis rather than an accrual basis.

Commerce has developed corrective action plans to address all but the property accounting problem, which it reclassified as a Section 2 FMFIA problem (see the following section). According to Commerce officials, none of the nonconformance items identified in 1983 were corrected in 1984 because of staff shortages and other factors.

### Property accounting systems do not conform

Commerce reported in 1983 that its accounting systems do not provide property accounting in conformance with the

Comptroller General's principles and standards. Specifically, Commerce did not properly value inventory, take annual physical inventories, or reconcile physical inventories to accounting records. As noted in chapter 2, the Chief, Operations Support Division, Office of Administrative Services Operation, estimated that Commerce's inventory of personnel property is valued at about $500 million. In his 1984 year-end report, the Secretary reported that this nonconformance item has been deleted from Commerce's list of Section 4 planned corrective actions because Commerce considers this to be a Section 2 FMFIA problem. In addition, Commerce indicated that its property accounting systems conform with the Comptroller General's principles and standards.

In our opinion, it does not matter whether the problem is classified as a Section 2 or Section 4 nonconformance item; the point is that it should be corrected in a timely manner. As for Commerce's property accounting systems being in conformance, we do not believe Commerce conducted sufficient testing to make a conformance determination. Specifically, it did not test to determine whether its systems accept only valid data and produce reliable reports and financial statements. (See p. 48 for further discussion regarding the lack of testing.)

Advances and prepayments are not properly recorded as assets

Title 2 of GAO's Policy and Procedures Manual for Guidance of Federal Agencies requires agencies to record as assets any payments to grantees in advance of work performed until evidence of performance is received. However, as Commerce reported in 1983, the EDA accounting system does not fully conform to this requirement. Specifically, it improperly records advances as expenditures instead of recording them as assets. Although EDA does not know the amount of advances outstanding, it had a planning budget of about $27 million in grants in fiscal year 1984. The Secretary reported in 1984 that Commerce would need to determine the significance of the amount of advances outstanding and then determine if the accounting procedures need to be changed. A systems accountant responsible for reviewing the study of the materiality told us that the study was not completed in 1984 because of other pressing needs and a shortage of staff. Commerce initiated efforts to study the materiality of the advances in February 1985 and plans to complete the study later in 1985.

Payroll system is not fully documented

The Secretary reported in 1983 that Commerce's centralized payroll system, which processes about 360,000 payroll transactions annually, does not conform to several of the Comptroller General's principles and standards, particularly in the area of documentation. To correct this problem, the

Secretary reported that Commerce would either convert to a fully documented payroll system currently existing within the federal government or enter into an interagency agreement with another federal agency for payroll processing services. In 1984 Commerce decided to use the Department of Agriculture's system to process its payroll/personnel actions. Commerce plans to have its entire payroll on the Agriculture system by July 1986.

Improper purchase of capital equipment

The National Technical Information Service (NTIS), established in 1970, serves as the central federal clearinghouse for scientific information. The Congress intended that, to the extent feasible, NTIS recover its costs when providing requested clearinghouse products and services. Since fiscal year 1979, when NTIS began separately accounting for its operations, the clearinghouse has been largely, but not entirely, self-supporting. Fees for its products and services, customer advances (deposits for future orders), and retained earnings are kept in a special fund. NTIS establishes fees and uses the fund to pay clearinghouse operating costs and to acquire inventory and equipment.

NTIS, however, does not have statutory authority to use the special fund to purchase capital equipment, which totaled about $120,000 in fiscal year 1984. As a result, the Secretary reported in 1983 that the NTIS accounting system does not conform with the Comptroller General's principles and standards relating to agency accounting and administration of funds.

To bring this system into conformance, Commerce has encouraged legislation to authorize a public enterprise revolving fund to purchase capital equipment. However, such authorization was not obtained in 1984. Commerce now plans to request an amendment to its statutory authorization to allow it to purchase capital equipment. We believe the proposed corrective action is reasonable and, if enacted, should correct the problem.

Foreign operations accounts are not maintained on an accrual basis

The Secretary reported in 1983 that the Office of the Secretary system does not maintain accounts for foreign operations on an accrual basis. This system accounts for the foreign operations of the United States Travel and Tourism Administration, which totaled about $7 million in fiscal year 1984. To correct this problem, Commerce was to develop new procedures and reprogram its systems to accept accrual data from the Department of State. However, the Acting Chief of the Financial Systems and Procedures Branch, Management Service Center, told us it was unable to correct this nonconformance item in 1984 because staff was not available to prepare the new procedures. Commerce plans to obtain additional staff during 1985 to correct this nonconformance item.

## COMMERCE HAS MADE PROGRESS IN IMPLEMENTING SECTION 4 OF FMFIA

During fiscal year 1984 Commerce took positive steps to improve its implementation of the act. Specifically, Commerce developed a tracking system to monitor the progress of corrective actions and implemented a quality assurance process.

### Automated tracking system

In our report on Commerce's 1983 FMFIA efforts,[2] we suggested that Commerce monitor the progress of actions to correct identified system weaknesses. In 1984 Commerce implemented an automated tracking system containing information on accounting system weaknesses identified by its bureaus' finance officers, the principles and standards each system fails to meet, planned corrective actions, and an implementation schedule for those actions. The bureau finance officers are to update this information during their initial evaluations and through quarterly reports to the Office of the Assistant Secretary for Administration's Office of Finance and Federal Assistance (OFFA). We believe this automated tracking system, if properly maintained, should help Commerce monitor the status of corrective actions.

### Quality assurance process

In our report on Commerce's 1983 FMFIA efforts, we suggested that it establish a quality assurance review process to ensure adherence to its accounting system evaluation guidelines. Commerce has adopted a two-part evaluation process: an initial evaluation by the responsible bureaus to include testing of the operating systems, followed by a follow-up review by OFFA to ensure the quality of the initial evaluation. In the latter case, OFFA is supposed to ensure conformance to Commerce's established guidelines and analyze and test the system.

During fiscal year 1984, OFFA completed follow-up reviews for two of Commerce's systems--NOAA and the Office of the Secretary. A follow-up review was started on the Bureau of the Census accounting system but was not completed in 1984. Commerce plans to complete this review in 1985. OFFA plans to perform follow-up reviews of the remaining five accounting systems between now and 1987.

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[2]RCED-84-133, June 22, 1984.

Three of the eight nonconformance items reported by Commerce were identified by the OFFA review team's analysis of the systems. The remaining five nonconformance items were identified by the bureau finance officers during their initial evaluations, which were primarily based on their personal experience, knowledge, and observations.

While the OFFA review process has helped Commerce identify instances of nonconformance, as discussed below, system testing was very limited, and this process can be further enhanced by increased testing of the accounting systems in operation.

## ADDITIONAL IMPROVEMENTS ARE NEEDED IN SYSTEM EVALUATION PROGRAM BEFORE CONFORMANCE CAN BE DETERMINED

Although Commerce has initiated positive steps to improve its evaluation program, our review showed that additional work is needed before Commerce can have a basis for reporting that its accounting systems are in conformance. In our opinion, Commerce did not conduct sufficient testing to make a conformance determination, and it did not maintain sufficient information on the scope and results of its reviews to show what was done and how conclusions were reached. Commerce is revising its system evaluation guidelines, which will contain new instructions regarding testing and documentation of the evaluations.

### Need to test accounting systems in operation

Our review of Commerce's 1984 FMFIA Section 4 evaluation efforts showed that Commerce did not conduct sufficient testing to determine whether its accounting systems were operating in accordance with the Comptroller General's principles, standards, and related requirements. In our 1983 FMFIA review, we reported that Commerce did not test to determine whether its systems accept only valid data and produce reliable reports and financial statements. We also pointed out that an effective testing program can show whether systems are operating consistently, effectively, and in accordance with established policies and procedures.

During fiscal year 1984 Commerce revised the evaluation guidelines provided to the finance officers by requiring that testing be performed in selected areas of the accounting system to substantiate review results. The guidelines did not specify the type of testing that should be performed.

However, our review showed that Commerce conducted no testing of transactions for five of its eight systems, and only limited testing for the other three accounting systems. For example, the finance officer who conducted the initial review of the National Bureau of Standards system tested only three accrual transactions in property management to determine whether invoices and purchase orders were entered into the system according to the amount billed. We found no evidence that this individual tested key accounting areas such as accounts receivable, grants, and reimbursable costs. These areas accounted for about $148 million in funds controlled by the system in fiscal year 1984. Finance officers who conducted the initial review of the National Technical Information Service system, on the other hand, did some limited transaction testing of selected aspects of the accounting system but did not test invalid transactions through the system. The other six initial reviews included no transaction tests.

Another example of limited transaction testing involved the Office of the Secretary system in which testing performed by the OFFA review team as part of its quality assurance work consisted of processing four invalid transactions through the general ledger. We found no evidence that the review team tested key accounting areas, such as funds control, property, revenues, and reimbursable costs. These areas accounted for about $200 million in funds controlled by the system in fiscal year 1984. We found that OFFA's review of the NOAA system consisted primarily of interviewing selected users and reviewing system structures and processes and did not include testing of valid and invalid transactions through the accounting system.

We believe the types and quality of testing performed for the National Bureau of Standards, National Technical Information Service, and Office of the Secretary systems were too limited for Commerce to determine whether these systems are in conformance.

To determine whether a financial system conforms to principles, standards, and related requirements prescribed by the Comptroller General, it is necessary to review and test the system in operation. Although agency personnel may have extensive system knowledge, systems may operate differently than they believe. Therefore, testing should be done on critical aspects of the system and may include (1) interviewing persons who operate the system, (2) observing operating procedures, (3) examining system documentation, (4) applying procedures to live transactions and comparing results, (5) direct testing of computer-based systems by use of simulated transactions, and (6) reviewing error reports and evaluating error follow-up procedures.

Tests should be designed to disclose whether valid transactions are processed properly and whether the system rejects invalid transactions. The tests should cover the entire transaction, from initial authorization through processing, posting to the accounts, and reporting. Accordingly, manual as well as automated operations must be included. In developing test plans, consideration should be given to the results of any prior system testing.

This testing criteria has been adopted by OMB and included in Appendix H of its publication, Guidelines for Evaluating Financial Management/Accounting Systems (May 20, 1985). In determining the tests that would be appropriate for any system, it is important to keep in mind that in most cases using transaction testing as the key, more than one of the above techniques is needed to test all important aspects of an accounting system.

The lack of testing was also due in part to an uncertainty among some bureau managers of what was required. Commerce is revising its accounting systems evaluation guidelines in an effort to overcome this problem and improve its accounting system evaluation guidelines. In our June 1985 comments to Commerce on the revised guidelines, we stressed the need to specify the type of testing needed to support future reviews.

We believe testing provides the necessary means of confirming that a system is operating as intended. Therefore, until its systems are properly tested, we believe Commerce is not in a position to determine whether its accounting systems conform with the Comptroller General's principles, standards, and related requirements.

### Need to adequately support results of system reviews

Commerce guidelines for the initial evaluation require that the finance officers maintain information on the scope of their review and provide sufficient support of their review results. However, for most of the evaluations we reviewed, they did not do so.

Specifically, the support for the initial evaluations did not always include information on the scope and methodology of the system review efforts, the source of the information gathered, and the basis for conclusions reached. Some of these finance officers based their accounting system certifications on their experience, knowledge, and observations of their systems. On the other hand, the finance officer for the Census system supported his conclusions with information that included the scope and methodology of the review and references to accounting manual procedures. Some finance officers indicated they were uncertain on the level of documentation that was required.

We believe that the finance officers need to maintain sufficient information on the results of their reviews. While this may initially require additional time, such documentation can serve as a base on which to build future reviews, thereby saving time and promoting continuity from one evaluation cycle to the next. In addition, documentation that fully supports evaluation objectives and findings provides managers with a means to assess the extent and quality of the work performed. Although the amount of detail needed is often a matter of judgment, it should be of sufficient depth to allow managers to understand the evaluation and determine how the conclusions regarding the system were reached.

Commerce is revising its accounting system evaluation guidelines in an effort to also overcome this problem. In our June 1985 comments to Commerce on its draft revised guidelines, we stressed the need to specify the type of information needed to support future reviews.

## CONCLUSIONS

In 1984 Commerce made progress in strengthening its accounting systems through its continued efforts to implement an accounting system evaluation program to meet the act's requirements. The development of an automated system for monitoring corrective actions, implementation of a quality assurance evaluation process, and identification of additional system nonconformances to be corrected were important parts of that progress.

However, additional steps are needed to enable Commerce to determine whether its systems conform to the Comptroller General's principles, standards, and related requirements. System reviewers must test their accounting systems in operation to ensure conformance and maintain sufficient information on the results of their reviews. To avoid any uncertainty on these matters, Commerce needs to revise its guidelines to specify what is required. In addition, Commerce's efforts to strengthen its accounting systems must be sustained.

## RECOMMENDATIONS

We recommend that the Secretary of Commerce not report that the Department's accounting systems are in conformance with the Comptroller General's requirements until they have been adequately evaluated in operation. We recommend further that the Secretary ensure that Commerce's bureaus test their accounting systems to determine operational conformance with the Comptroller General's principles, standards, and related requirements. Specifically, testing should include determining whether valid transactions are processed in accordance with applicable requirements and whether the system reacts appropriately to invalid transactions.

## AGENCY COMMENTS

Commerce disagreed with our recommendations. Commerce said that the Department's fiscal year 1984 reviews accomplished the test objectives of our recommendations and provided reasonable assurance that the accounting systems, taken as a whole, do meet GAO's requirements.

Commerce said that we did not provide any evidence of major problems or weaknesses in any departmental accounting systems that would preclude its positive statement on accounting system conformance. Further, Commerce said that six of the eight systems have been approved by GAO and the other two have not been reported to have broad-based nonconformities. Commerce contended that its FMFIA 1984 Section 4 process exceeded OMB's requirements for evaluating financial management accounting systems.

We disagree with Commerce. While reporting all system deficiencies of which we are aware, we believe Commerce should not have reported overall accounting system conformance with the Comptroller General's principles, standards, and related requirements until it had adequately evaluated them in operation.

We support the testing criteria that OMB adopted and included in Appendix H of its publication, Guidelines for Evaluating Financial Management/Accounting Systems (May 20, 1985). Specifically, the criteria stated that tests should be designed to disclose whether valid transactions are processed properly and whether the system rejects invalid transactions. Our review showed that Commerce conducted no testing of transactions for five of its eight systems, and testing for three systems did not cover some key aspects of the systems. With respect to Commerce's position that six of its eight systems were previously approved by GAO, these approvals were of the Department's accounting principles and standards and systems design and not of the operating system. This differentiation was made clear to agencies at the time their systems were approved. In the case of Commerce, the approvals were made prior to 1980. We have since made it clear to agencies that prior approvals of system designs do not satisfy the need to review the operating systems to ensure they conform. We have frequently noted in our audit work at federal agencies that accounting systems were operating differently than specified in their design and even differently than responsible officials believed them to be operating. Accordingly, we believe Commerce's future accounting system evaluations should include transaction testing.

As for testing, Commerce said it was unaware of any GAO guidelines for what is considered adequate testing for a Section 4 review. Commerce also indicated that we shifted position several times on its policy for conducting Section 4 evaluations. Further, Commerce felt it was difficult to be responsive when we did not provide them with a testing criteria until after the fiscal year 1984 evaluation was well underway.

We have explained during our review the importance and need for transaction testing to Commerce system reviewers. Further, we have been consistent in our testing criteria as indicated in our report on Commerce's 1983 FMFIA efforts where we pointed out the need for Commerce to test whether its systems accept only valid data and produce reliable reports and financial statements. Transaction testing encompasses determining the principles, standards, and related requirements that apply to the system and processing actual and simulated transactions to verify that applicable requirements are being met on a consistent basis. Our intent in this chapter was to offer additional suggestions to enable the Department to improve its future system evaluations.

Commerce also thought that simulated transactions should be used primarily for parallel testing of system changes and modifications. It further said that each system is managed by bureau personnel who perform continuous testing of the system through the daily error reports and edit listings.

As we discussed in this chapter, tests should include both valid and invalid transactions, from initial authorization through processing, posting to the accounts, and reporting. Once these evaluations are conducted, Commerce would need only to update them as system changes arise and periodically check to ensure that the system is still being properly operated. Further, we do not consider the bureau finance officers' review of the daily error reports and edit listings to be sufficient testing, by themselves, of the accounting systems in operation. Although an important consideration, such testing may not disclose whether the edit checks in the system are sufficient and whether all key control objectives are covered.

Our draft report contained a proposal that the Assistant Secretary for Administration test Commerce's accounting systems to determine operational conformance with the Comptroller General's principles, standards, and related requirements. Commerce did not think it is the Assistant Secretary for Administration's responsibility to do extensive testing of the bureau accounting systems. Accordingly, we have redirected our recommendation to the Secretary of Commerce to ensure that the Department's bureaus test their accounting systems to determine operational conformance with the Comptroller General's requirements.

## MATERIAL WEAKNESSES IDENTIFIED

## IN THE DEPARTMENT OF COMMERCE'S

## FISCAL YEAR 1984 REPORT ON INTERNAL CONTROLS

1. Lack of adequate costing information from the National Aeronautics and Space Administration regarding satellite procurement at the National Environmental Satellite Data and Information Service.

2. Lack of proper controls over access to and use of National Weather Service computer resources.

3. Control problems in the procurement of communication services by the National Weather Service caused by the divestiture of AT&T.

4. Lack of adequate controls to promote consistent cost recovery practices for information distributed by the National Environmental Satellite Data and Information Service Data Centers.

5. Weak internal controls to prevent or detect regulatory and policy violations in the purchasing and imprest fund function in the Office of Aircraft Operations.

6. Lack of adequate controls over the decennial census design process at the Bureau of the Census.

7. Lack of computer backup for payroll and accounting systems at the Bureau of the Census.

8. Inadequate controls over property management systems at the Bureau of the Census.

9. Inadequate controls in Commerce's personal property system.

10. Weak management and administrative controls over business loans at the Economic Development Administration.

11. Lack of adequate controls over planning and monitoring in the Minority Business Development Center Program.

12. Lack of adequate controls over file integrity and security at the Patent and Trademark Office.

13. Inadequate controls over internal coordination to distribute marketing information to industry and International Trade Administration field components.

14. Control weaknesses at the National Bureau of Standards radio station.

15. Weaknesses in Commerce's Management of Information Collection Program.

16. Deficiencies in Commerce's Consolidated Personnel/Payroll System.

17. Deficiency in the Office of the Inspector General's system to rank cases for investigation.

18. Excessive time to complete management audits and investigations by the Office of the Inspector General.

19. Inadequate audit follow-up system in the Office of the Inspector General.

Table II.1: SCHEDULE OF COMMERCE'S ACCOUNTING SYSTEMS AND THEIR RESPONSIBLE BUREAUS AND OFFICES

| Accounting System | Bureau/Office |
|---|---|
| Office of the Secretary | Office of the Secretary<br>United States Travel and Tourism Administration<br>Bureau of Economic Analysis<br>Minority Business Development Administration (salaries and expense)<br>Office of the Under Secretary for Economic Affairs<br>Office of Assistant Secretary for Productivity, Technology, and Innovation<br>Office of Chief Economist |
| National Oceanic and Atmospheric Administration | National Oceanic and Atmospheric Administration |
| Bureau of the Census | Bureau of the Census |
| Economic Development Administration | Economic Development Administration<br>Minority Business Development Administration (Program funds)<br>National Telecommunication and Information Administration (Program funds)<br>International Trade Administration (Trade Adjustment Program) |
| International Trade Administration | International Trade Administration |
| National Bureau of Standards | National Bureau of Standards<br>National Telecommunications and Information Administration (salaries and expense) |
| National Technical Information Service | National Technical Information Service |
| Patent and Trademark Office | Patent and Trademark Office |

# ADVANCE COMMENTS FROM THE DEPARTMENT OF COMMERCE

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

SEP 16 1985

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Administration
Washington, D.C. 20230

Mr. J. Dexter Peach
Director, Resources, Community, and
Economic Development Division
United States General
Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

We have reviewed the draft report "Department of Commerce's Second-Year Efforts to Implement the Federal Managers' Financial Integrity Act" (B-216944).

See comment 1. The problems the Federal Managers' Financial Integrity Act is intended to address are not new. These have been with us for quite some time and they will not be corrected overnight. However, I want to assure you that this Department is committed to correcting them. We have attempted to be responsive to both OMB and GAO regarding the Act. This task has been difficult because of the conflicting guidance and advice provided by both OMB and GAO and the constant changes in direction that have occurred. Lacking clear guidance, the Department developed its own policy for conducting Section 2 and 4 evaluations. GAO was given the Department's policies and procedures to review. These included "reasonable assurance", "material weaknesses," and Section 4 guidance. GAO's comments were incorporated in our guidance. However, at the eleventh hour, GAO decided to shift direction again and question the adequacy of the Section 4 policy. It is particularly difficult to be responsive when your evaluation methodology is questioned by evaluators using criteria which were developed and provided after the FY 84 evaluation was well underway. I strongly recommend that both GAO and OMB resolve their differences and present agencies with a common set of criteria for developing an adequate evaluation system. This will allow us to get on with the business of strengthening our management controls. We have three major comments on the report itself.

See comment 1. First, we disagree with several statements made in Chapter 5. The draft states that testing was inadequate to support the Department's certification of the integrity of the accounting systems. However, we are unaware of any GAO guidelines as to what is considered adequate testing for a Section 4 review.

See comment 1. GAO recommends "that the Secretary of Commerce not report that the Department's accounting systems are in conformance...until they have been adequately evaluated in operations." GAO further recommends that the Assistant Secretary for Administration test whether valid transactions are processed in accordance with applicable requirements and whether invalid transactions are

## ADVANCE COMMENTS FROM THE DEPARTMENT OF COMMERCE



rejected by the system. We take exception to these GAO statements. The Department's FY 84 reviews accomplished these test objectives and provided reasonable assurance that the accounting systems, taken as a whole, do meet GAO's principles, standards and related requirements. We contend that our Federal Managers' Financial Integrity Act (FMFIA) 1984 Section 4 process exceeded OMB's requirements for Evaluating Financial Management Accounting Systems. Our review process not only covered the system controls, but also the system outputs, the processes, and the system structure as required by the Office of Management and Budget Guidelines for Evaluating Accounting and Financial Management Systems.

See comment 1. Reporting that the DOC accounting systems fail to conform with GAO requirements is not supported by evidential matter uncovered by numerous reviews during the fiscal year (Sections 2 and 4 reviews and quality assurance reviews conducted by the Department, GAO reports, etc.). GAO's statement that Commerce is not in a sound position to determine overall systems conformance to the Comptroller General's principles, standards and related requirements was not substantiated during interviews or with documentation. GAO does not provide any evidence of major problems or weaknesses in any Departmental accounting systems that would preclude our positive statement on accounting system conformance. In addition, GAO's approach questions the basis for the Department's finance officer's certifications, as well as the value of all monthly, quarterly, and annual reports issued from the Department's accounting systems. While exceptions were noted in our reviews, the preponderance of the findings revealed that the accounting systems do conform. Six of the eight systems have been approved by GAO and the other two have not been reported to have broad-based nonconformities. Further, we are unaware of any GAO guidance regarding the number of deviations which would preclude an accounting/financial management system from being in general conformance with the Comptroller General's Principles and Standards. Under close scrutiny, any accounting system has some exceptions because each agency or bureau has unique transactions which fall into the large gray area between the standards and reality.

See comment 1. As for testing, the draft report recommends that the Department test a substantial number of simulated transactions in the live environment of an established accounting system. We believe that this approach should be used primarily for parallel testing of system changes and modifications where there is a one-to-one comparison of similar transactions. Further, it is not the Assistant Secretary for Administration's responsibility to do extensive testing of the Bureau accounting systems. Each system is managed by Bureau personnel who perform continuous testing of the system throughout the fiscal year. Testing and refining the

## ADVANCE COMMENTS FROM THE DEPARTMENT OF COMMERCE



accounting systems are ongoing managerial requirements. On any given run, numerous items will fail the edits -- creating a live test situation. Further, new transaction types, cost centers, etc., create a need for constant modification of the systems -- another live test situation. The quality assurance reviews done by the Assistant Secretary of Administration merely provide additional assurances relating to specific standards.

See comment 2. Second, we believe that the recommendation contained in Chapter 4 regarding internal control reviews is misdirected. The revised Departmental Guidelines on conducting internal control reviews (June 1985) requests that Bureaus seek advice from the Assistant Secretary for Administration's staff or the Inspector General's staff to review the adequacy of inherent risks, control objectives and control techniques prior to testing. The guidelines also request bureau staff to seek advice on the amount and type of testing required. If the intent of GAO is to ensure that adequate testing is done and that Bureaus seek guidance from Departmental internal control staffs, then the focus of the recommendation should be on the Bureaus. GAO should recommend that they follow guidelines and seek advice and assistance at appropriate times during the evaluation process.

See comment 3. Third, Chapter 3 on the need to improve vulnerability assessments contains a recommendation that managers, in determining numerical averages for their vulnerability, weigh identified risks according to their importance to the assessable unit. This recommendation is of particular concern because of the number of occasions on which quantitative schemes have been attempted for assessing vulnerabilities and the staff time invested in such efforts. We believe that rather than recommending yet another iteration, GAO should determine whether quantification adds anything to managers' determinations of an appropriate course of action and, if so, recommend a methodology that is simple and reliable.

Several additional concerns and technical corrections are contained in an enclosure to this letter.

Thank you for the opportunity to comment on this draft report.

Sincerely,

Kay Bulow

Kay Bulow
Assistant Secretary
for Administration

Enclosure

# ADVANCE COMMENTS FROM THE DEPARTMENT OF COMMERCE

## ADDITIONAL COMMENTS/TECHNICAL CORRECTIONS TO GAO'S DRAFT REPORT ON THE DEPARTMENT OF COMMERCE'S SECOND YEAR EFFORTS TO IMPLEMENT THE FEDERAL MANAGERS' FINANCIAL INTEGRITY ACT

CHAPTER 1 -- NO COMMENT

CHAPTER 2

Now on p. 10. See comment 4.

1. Page 14, first paragraph, delete reference to NBS' personal property management system since the Department has decided not to adopt it.

Now on p. 13. See comment 4.

2. Page 19, first bullet, change to: "Census' Charlotte Regional Office requested and obtained from Commerce clarification between the Eastern Administrative Support Center and Charlotte regarding delegations of authority for local purchasing and recruitment authority."

CHAPTER 3

Now on p. 20. See comment 5.

1. Page 27, second paragraph, GAO notes three particular concerns of Commerce managers: paperwork volume, absence of program-specific risk descriptions due to generalized forms, and liabilities of averaging of vulnerabilities. The report makes specific recommendations directed at the second and third concerns but is silent on the first. This omission should be addressed. The volume of paperwork does have implications for the efficiency of the process and the clarity of the analyses.

Now on p. 23. See comment 4.

2. Page 32, first paragraph, use of the term "bicennial" is incorrect and should be deleted.

CHAPTER 4

Now on p. 35. See comment 4.

1. Page 45, second paragraph, suggests that the loan servicing ICR overlooked testing of accounting controls. However, ITA intended accounting system controls to be the subject of a separate ICR. This was always apparent in ITA's FY 85 schedule, but probably should have been explained in the loan servicing ICR report. ITA agrees that there was a need to undertake additional work on the procedures used by Trade Adjustment Assistance (TAA) to follow-up in cases in which problems are identified.

Now on p. 35. See comment 6.

With regard to the items listed on page 49 as not tested, the Deputy Assistant Secretary for Trade Adjustment Assistance states that:

"ITA's Financial Assistance Division (FAD) is now receiving, through an agreement with the Director of the EDA Accounting Division, notifications on a daily basis of payments not

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## ADVANCE COMMENTS FROM THE DEPARTMENT OF COMMERCE

received by accounting one day after the ten day grace period. This will allow FAD to promptly follow-up on delinquent accounts with telephone calls, letters or other appropriate actions. Also, on a monthly basis FAD will be provided with a report from EDA Accounting Division, aging accounts receivable.

A mail box has been set up for the Office of Trade Adjustment Assistance (OTAA) to enable them to pick up accounting information on a daily basis.

OTAA is also in the process of setting up a report which will list each project and the date billing should be mailed by the accounting division and the actual due date for receipt of payment. This will enable OTAA to verify that a copy of each billing notice and receipt are obtained and entered into the official project file. OTAA and the EDA accounting staffs have been working together in an effort to clean up all OTAA related reports and institute a system which will allow both OTAA and EDA accounting to catch errors early. We are now receiving reports and billing information on a routine basis.

With regard to the item -- proper reviews and approvals of loan modifications, the same people who review and sign FAD recommendations for approval are the same people who review and approve loan modifications. We do not understand the thrust of this criticism."

**Now on p. 35. See comment 4.**

2. Page 50, first paragraph, states that the ITA internal control coordinator "stated that the primary focus of the review was to determine how best to service borrowers...". ITA has no recollection of making this statement, and believes it reflects a misunderstanding. The purpose of the ICR was to assess the adequacy of the internal controls, not to determine how best to service borrowers. However, TAA's task force which was organized before the ICR began and provided, fortuitously, the staff and expertise to conduct the ICR - did focus on servicing options. We believe the auditor may have confused the broad interest of the task force with the narrower ICR focus.

**Now on p. 35. See comment 4.**

3. Page 50, first paragraph, remarks that "internal control reviewers told us that they had not been trained to conduct reviews and were uncertain about what should be tested." As a result of the vagueness and the stilted terminology associated with internal control guidance, we have not found generalized training productive. As an alternative, the Office of Organization and Management Support in ITA provides direct staff support for ICRs in program areas. This accounts for the seeming lack of training. Uncertainties about testing are resolved in the normal course of the ICR, after defining objectives, risks, and techniques.

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# ADVANCE COMMENTS FROM THE DEPARTMENT OF COMMERCE

CHAPTER 5

Now on p. 42. See comment 4.

1. Page 58, first paragraph, should be changed to read as follows: Commerce, which has adopted a multi-year approach to conducting indepth evaluations by the Office of the Secretary for Administration of its accounting systems, ...

Now on p. 42. See comment 4.

2. Page 58, Footnote 1, should be changed to read as follows: However, the nonconformances reported by Commerce do address Title 4 - Claims, Title 6 - Payroll Systems, as well as other related requirements.

Now on p. 42. See comment 1.

3. Page 58, last paragraph, ending on page 59, should be revised to read as follows: ...because five of the eight systems were only tested in operations, through the daily error reports and edit listings to ensure... The GAO report should then follow that sentence with statements referencing the amount of testing which should have been done.

Now on p. 44. See comment 7.

4. Page 62, second paragraph, should be deleted for the following reasons: We documented and flowcharted the entire Property Accounting System Process for the Office of the Secretary accounting system showing each required document number and step. In addition, we identified purchase orders for property and traced them through the system to the General Ledger Accounts. This process was explained to GAO auditors several times. We contend that testing of the property accounting system process was more than sufficient, particularly in the absence of GAO standards indicating the amount of testing necessary to be considered "sufficient."

Now on p. 49. See comment 1.

5. Page 68, first paragraph, add: ...The other six initial reviews included transaction testing through reviewing error reports and evaluating error follow-up procedures.

Now on p. 49. See comment 1.

6. Page 69, first paragraph, gives the following suggestions:

...Therefore, testing should be done on critical aspects of the system, and may include (1) interviewing persons who operate the system, (2) observing operating procedures, (3) examining system documentation, (4) applying procedures to live transactions and comparing results, (5) direct testing of computer-based systems by use of simulated transactions, and (6) reviewing error reports and evaluating error follow-up procedures.

The GAO report should clearly state that the above suggestions were first published in OMB Guidelines for Evaluating Financial Management/Accounting Systems in May of 1985, five months after the 1984 reviews were completed and could not be used by the agencies as a standard for the 1984 review process and, therefore, should not be used by GAO evaluation criteria for 1984 reviews.

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## ADVANCE COMMENTS FROM THE DEPARTMENT OF COMMERCE

See comment 8.

7. The GAO report should include the following information to ensure a balanced presentation of the process conducted by Commerce:

What the Commerce/OFFA review team did:

Commerce conducted indepth evaluations in accordance with existing OMB Review Guidelines for both NOAA and the Office of the Secretary. These are the two largest systems within the Department, and together account for approximately 62 percent of the Department's $2 billion budget authority.

The team interviewed each desk in the accounting operations and reporting area for both the Office of the Secretary and NOAA. They observed operating procedures and processing methods and determined that procedures for both NOAA and the Office of the Secretary were inadequate and obsolete as stated in our report of nonconformance items. They examined system documentation and requested special computer generated reports which were used to compare the actual system structure with the system documentation and determined that NOAA's system documentation was incorrect and that certain general ledger capability, such as fund control, the write off and aging of receivables were missing from the Office of the Secretary accounting system, as reported in our nonconformance items.

The Commerce review team reviewed data control procedures by tracing actual (hard copy) transactions from the originating point, through the batch control process, the keying process, to the detail reports into the summary (general ledger) report. They also reviewed edit correction procedures and error turnaround time.

The team reviewed outputs and supporting documentation, worksheets, etc. to ensure that mandated external reports were accurate and could be supported by official records and data generated by the accounting system.

They reviewed and evaluated the system(s) structure to ensure that coding patterns, chart of accounts, object class, etc. were designed to meet the needs of the particular bureau. They reviewed logic tables, general ledger accounts, object classifications, etc. generated by the automated systems.

The team reviewed and evaluated the system(s) processes to ensure the adequate and timely processing of collections, procurement, disbursements, cash controls, inventory controls, the use of letter of credits, as well as the use of Treasury Electronic Fund Transfer (EFT) System.

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## ADVANCE COMMENTS FROM THE DEPARTMENT OF COMMERCE

They reviewed and evaluated system(s) controls such as the administrative control of funds procedures. Procedures for certifying mandated external statements and procedures for preventing and reporting antideficiency violations.

What the Bureau Finance Officers did

Testing and monitoring the financial/accounting system of each bureau is an ongoing function of each finance officer. This includes reviewing, revising, and rewriting procedures based on job knowledge, observation, and changing requirements.

They are responsible for daily edit and error reports which requires the comparing of actual data entered into the system during normal operations with actual results as shown by edit listing and output reports, which is considered a valid testing technique by GAO (see below).

-- Another approach, which should not be overlooked, is the possibility of working around the computer to achieve all or part of the test objectives. Using this technique, the auditor compares the actual data entered into the system during normal operations with actual results as shown by edit listings and output reports.1/

1/ Care Audit Methodology--To Review and Evaluate Agency Accounting and Financial Management Systems, United States General Accounting Office, July 1985, p.7-9.

The following are GAO comments on the Department of Commerce's letter dated September 16, 1985.

GAO COMMENTS

1. This comment is discussed in the agency comments section of chapter 5 of the report.

2. This comment is discussed in the agency comments section of chapter 4 of the report.

3. This comment is discussed in the agency comments section of chapter 3 of the report.

4. Report revised.

5. Commerce suggested that we address managers' concerns about the volume of paperwork involved in the vulnerability assessment process. We did not make a recommendation to Commerce regarding the amount of paperwork involved in the assessment process because a certain amount of documentation is essential to show the basis for conclusions reached and to enable management to build on the work in the future. We believe that while an initial investment in paperwork may be required, once that is achieved, the paperwork generated in succeeding evaluations should not be very great. At that point, managers can look at existing documentation in evaluating their systems. If past work is not documented, they will have to virtually start over again each time they evaluate their systems.

6. This comment provides additional information about material discussed on page 35 which we do not believe requires changes to the report.

7. This comment provides additional information about material discussed on page 44, which we do not believe requires changes to the report. Also, as noted in our report, Commerce did not test to determine whether its systems accept only valid data and produce reliable reports and financial statements.

8. This comment provides additional information about material discussed on pages 47 through 51, which we do not believe requires changes to the report. In addition, testing of systems in operation, which should include invalid as well as valid transactions, is discussed in the agency comments section of chapter 5 of this report.

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