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BY THE U.S. GENERAL ACCOUNTING OFFICE

**Report To The Administrator,
National Aeronautics And
Space Administration**

**Mark
National Aeronautics And Space
Administration's First-Year
Implementation Of The Federal
Managers' Financial Integrity Act**

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GAO conducted a review of 22 federal agencies' efforts to implement the Federal Managers' 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 their internal controls and accounting systems.

This report highlights the progress made and problems encountered by NASA in its first year of experience with this new act. The report focuses on NASA's efforts to evaluate internal controls, review accounting systems, and improve the evaluation processes as a result of identified problems.



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

NATIONAL SECURITY AND
INTERNATIONAL AFFAIRS DIVISION

B-202205

The Honorable James M. Beggs
Administrator, National Aeronautics
and Space Administration

Dear Mr. Beggs:

We reviewed your agency's implementation of the Federal Managers' Financial Integrity Act of 1982. Section 2 of this act requires agencies to establish systems of internal controls in accordance with Comptroller General standards to ensure that (1) obligations and costs comply with laws, (2) funds, property, and other assets are safeguarded, and (3) revenues and expenditures are properly recorded, accounted for, and reported. In addition, agencies are required under section 4 of this act to report on whether their accounting systems conform to the Comptroller General's principles and standards.

In accordance with section 2 of the act, the Office of Management and Budget (OMB) published guidelines in December 1982 to facilitate the evaluation and improvement of internal controls in the federal government. These guidelines, which are similar to the requirements OMB established in October 1981, generally require agencies to

- appoint a high-level official to manage internal control systems;
- evaluate the susceptibility of these systems to waste, loss, unauthorized use, or misappropriation;
- improve the most vulnerable internal control systems; and
- report annually to the President and the Congress on the status of internal controls.

We evaluated the extent the National Aeronautics and Space Administration (NASA) complied with the OMB guidelines on internal controls.

We also reviewed NASA's efforts to implement section 4 of the act. In the absence of guidelines for assessing accounting systems, the Comptroller General identified some steps agencies could take to implement the act during the first year. These steps included organizing for the effort, compiling an accounting system inventory, identifying system enhancement projects, and initiating reviews of systems.

Highlights of our review follow. A detailed summary of our evaluation and the objectives, scope, and methodology are included in appendix I.

NASA'S PROGRAM FOR REVIEWING INTERNAL CONTROL SYSTEMS

At the time the act was passed, NASA had processes for evaluating and improving its systems of internal controls. These processes were commonly known as functional reviews. Rather than develop a new program to comply with the OMB guidelines, NASA expanded its existing processes as summarized below.

During 1982, NASA headquarters identified 105 management areas to determine their susceptibility to waste, loss, unauthorized use, or misappropriation. By December 24, 1982, 688 evaluations were done at NASA's space flight and research centers and returned to headquarters. None of the evaluations found areas of high risk.

In early 1983 NASA evaluated its list of 105 management areas and reduced it to 26, which were formally identified as internal control systems, primarily in the procurement and financial management area. Following this decision, NASA's organizations were instructed to review the 26 internal control systems. At the time of our review, NASA headquarters did not know how many internal control reviews were completed. However, approximately 15 percent of the reviews were scheduled in 1983, the remainder in 1984.

The first annual report, issued on December 23, 1983, did not disclose any material weaknesses in NASA's systems of internal control. However, several weaknesses and problems, as noted in appendix II, were identified in functional reviews and internal audits, but were not considered material in reporting to the President and the Congress.

Future Considerations for Improvement

Overall, NASA's approach of relying on its existing methods of evaluating and improving internal control systems is reasonable. However, the following actions need to be implemented

during the next year for NASA to fully comply with the requirements of the OMB guidelines and the Comptroller General's internal control standards.

More management involvement needed

One of the Comptroller General's internal control standards is a supportive management attitude. Some of NASA's actions have not reinforced this standard. For example, an internal control committee, composed of NASA's top managers, was formed to provide advice and guidance on the internal control activities, to review the results of the evaluations and internal reviews, and to monitor the corrective actions being taken. The committee is no longer active and there is no formal record of their meetings or what they accomplished.

Other actions indicate a need for stronger review and oversight procedures by NASA management. There was a misconception on the purpose of the vulnerability assessment process. Some managers considered the evaluations a report card on their abilities rather than an assessment of risk. This probably contributed to the evaluations being skewed. Of the 688 evaluations performed, 632 were rated low in risk and none were rated high. The lack of effective quality assurance procedures also allowed irregularities in the process. For example, some managers did not sign evaluation forms, and one manager signed as both preparer and reviewer.

Some "how to" training needed

NASA did not plan to provide the "how to" instruction we believe necessary to perform the various activities required by the OMB guidelines. We found some managers were not able to implement the internal control review process of the OMB guidelines. Several officials at the centers told us they received no training on how to perform vulnerability assessments and internal control reviews. Most of the instructions received by managers were for the purpose of finalizing the job on time. Generally they were told to "follow the guidelines" and "use your best judgment."

More effective follow-up systems needed

A follow-up system, according to the OMB guidelines, develops plans for corrective actions, logs and tracks recommendations and target dates, and monitors whether changes are made on time. Rather than develop such a tracking and follow-up system for corrective actions, NASA officials chose to rely on existing procedures. Our examination showed that three systems currently in operation are generally ineffective in resolving problems. For example, about half of the 37 management problems

found in a 1983 review of supply and equipment at headquarters were similar to findings reported by a review team in 1981. In commenting on this report, NASA officials noted that corrective actions were prescribed for all 37 findings and even though some have been completed, others remain open.

Reevaluate inventory of
internal control systems

NASA originally developed an inventory of 105 management areas that were subject to vulnerability assessments. In early 1983, this inventory was reduced to 26 areas which were formally designated as internal control systems. NASA's decision was based on the rationale that

- the 26 systems are those functions that directly ensure compliance with the act,
- 87 percent of audit activity occurred in the 26 functional areas,
- all other control systems do not directly bear upon areas covered by the act, and
- these 26 systems provide the broadest coverage in the most cost-effective approach under NASA's management system.

Both OMB and the NASA Inspector General reviewed NASA's decision to reduce the inventory as part of their evaluation of NASA's program for reviewing internal controls. They determined that the reduced inventory is too limited to fully comply with the requirements of the OMB guidelines.

Clarify basis for
reporting material weaknesses

NASA's annual report noted that accounting systems and administrative controls in effect during calendar year 1983, taken as a whole, provided reasonable assurance that the objectives of the act were achieved. No material weaknesses were reported. However, functional reviews and independent audits discussed in appendix II reported weaknesses and problems both at NASA's centers and headquarters offices. For example, the Assistant Administrator for Procurement disclosed eight specific material weaknesses requiring corrective action that were not identified in the annual report. We believe some of the weaknesses and problems may indicate material weaknesses which should be reported.

NASA'S PROGRAM FOR ACCOUNTING
SYSTEM CONFORMANCE

The NASA Comptroller has responsibility for evaluating NASA's accounting system and ensuring it conforms with the Comptroller General's principles, standards, and related requirements. In this regard, the NASA Comptroller compiled an agencywide accounting system inventory and identified system enhancement projects.

NASA has a mechanism in place for evaluating its accounting system--a financial management functional review. This review, according to officials, provides assurance that NASA's system conforms with the Comptroller General's requirements. In the first annual report, NASA stated that its accounting systems conformed in all material respects to the Comptroller General's principles, standards, and related requirements.

Suggestions to Improve the Accounting
System Conformance Program

Although NASA stated that its accounting systems conform to the Comptroller General's principles and standards in all material respects, internal reports identified areas of nonconformance as noted in appendix II. For example, NASA headquarters activities and certain centers did not perform a physical inventory of property, reconcile the inventory with property accounting records, and record obligations properly. These failures are all deviations from the Comptroller General's principles and standards which in the future should be considered when the NASA Comptroller reports on the degree the accounting system conforms under section 4 of the act.

We believe the financial management functional review can be a good tool for evaluating accounting systems conformance with the Comptroller General's principles, standards, and related requirements. However, the functional review process does not require NASA review teams to test transactions or validate data during reviews. In seven of the eight reviews we assessed, review teams did not test accounting transactions or validate financial report data during on-site reviews. Testing and validating are essential to ensure transactions and reports accurately and properly reflect the agency's financial operation. In addition, testing and validating data will provide a basis for a more meaningful certification under section 4 of the act.

AGENCY COMMENTS

In response to proposals made in a draft of this report NASA stated it plans to take the following actions by September 28, 1984:

- Managers will be more involved in administering their internal control systems. The Associate Administrator for Management plans to continue discussing internal control systems at General Management Status Reviews, a meeting attended by key agency managers. In addition, guidance is being developed to clarify quality assurance and oversight roles of headquarters and center managers. Plans are also underway to train personnel. Tracking systems are being revised to ensure timely follow up of needed corrective actions.
- A reevaluation was initiated to determine if internal control reviews should be made of additional NASA programs. Initial indications are that NASA will expand its coverage to include both administrative and technical programs.
- Administrative guidance is being developed to clarify criteria for identifying a material weakness. The guidance will consider the nature of the problems at various reporting levels and define a policy for reporting weaknesses and planned corrective actions.
- Guidance is being developed for personnel involved in internal control reviews. It will include provisions for sample testing of selected transactions to permit reasonable assurance that an accounting system is effective.

A copy of NASA's response is included as appendix III. Since NASA's actions address the issues raised by this report, we are withdrawing our proposed recommendations, but we will monitor the improvements as part of a follow-up review. As improvements are made, the year end statement of reasonable assurance on the status of NASA's internal controls and the report on the extent to which its accounting systems comply with the Comptroller General's requirements, will become more meaningful.

We are sending copies of this report to the Chairmen of the House Committee on Government Operations; Senate Committee on Governmental Affairs; House and Senate Committees on Appropriations; the House and Senate Committees on the Budget; House Committee on Science and Technology; and Senate Committee on Commerce, Science and Transportation; and the Director, OMB.

Sincerely yours,



Frank C. Conahan
Director

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ABBREVIATIONS

GAO	General Accounting Office
OMB	Office of Management and Budget
NASA	National Aeronautics and Space Administration

NASA'S IMPLEMENTATION OF THE FEDERAL MANAGERS'
FINANCIAL INTEGRITY ACT OF 1982

The Congress, in 1982, enacted the Federal Managers' Financial Integrity Act, 31 U.S.C. 3512(b) and (c), in response to continuing disclosures of waste, loss, unauthorized use, or misappropriation across a wide spectrum of government operations, which were largely attributable to serious weaknesses in agencies' internal controls. The act was enacted for the purpose of strengthening the existing requirement of the Accounting and Auditing Act of 1950 that executive agencies establish and maintain systems of accounting and internal control to provide effective control over and the accountability for all funds, property and other assets for which the agency is responsible, 31 U.S.C. 3512(a)(3).

We believe that full implementation of the Financial Integrity Act will enable the heads of federal departments and agencies to identify their major internal control and accounting problems and improve controls essential to the development of an effective management control system and a sound financial management structure for their agency. To achieve this end the act requires:

- Each agency to establish and maintain its internal accounting and administrative controls in accordance with the standards prescribed by the Comptroller General, so as to reasonably ensure 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 are recorded and properly accounted for.
- Each agency to evaluate and report annually on internal control systems. The report is to state whether agency systems of internal control comply with the objectives of internal controls set forth in the act and with the standards prescribed by the Comptroller General. The act also provides for agency reports to identify the material weaknesses involved and describe the plans for corrective action.
- Each agency to prepare a separate report on whether the agency's accounting systems conform to principles, standards, and related requirements prescribed by the Comptroller General.
- The OMB to issue guidelines for federal departments and agencies to use in evaluating their internal accounting and administrative control systems. These guidelines were issued in December 1982.

--The Comptroller General to prescribe standards for federal agencies' internal accounting and administrative control systems. The Comptroller General issued these standards in June 1983.

This report on NASA is one of 22 reports on federal agencies' efforts to implement the act during the first year.

NASA'S PROGRAM FOR REVIEWING INTERNAL CONTROLS

Before the act, NASA reviewed its systems of internal control through its functional review process. Although the procedures for functional reviews vary from system to system, the general objective is to ensure the systems operate according to NASA's policies and procedures. These reviews are performed by a review team from headquarters, generally, every 2 years. A report with findings and recommendations for corrective actions is prepared at the end of each review. Recommendations are reviewed periodically to determine if corrective actions have been implemented. Because of this existing internal control review process, NASA management believed they were already in substantial compliance with the act when it was passed.

NASA took several actions specifically to comply with OMB's requirements in Circular A-123 dated October 1981 and OMB's internal control guidelines issued pursuant to the Financial Integrity Act. In April 1982, the Administrator appointed the Associate Administrator for Management as the NASA Internal Control Manager with authority to issue directives, monitor and evaluate programs, and report on the status of internal controls. Each NASA center and major headquarters office was directed to appoint an Internal Control Officer to coordinate activities within their organization.

NASA officials segmented the agency into 105 management areas. On November 15, 1982, the Internal Control Manager directed the various headquarters offices and space flight and research centers of NASA to assess the vulnerability of these 105 management areas to waste, loss, unauthorized use or misappropriation. A total of 688 assessments were completed and returned to the Internal Control Manager in December 1982. Out of the 688 assessments, 632 were rated low, 56 were considered moderate, and none were rated high.

In February 1983, NASA management reviewed their program and concluded that the act did not apply to their entire inventory of 105 areas. As a result, they reduced their inventory to 26 internal control systems. Eighteen of these systems are in the procurement and financial management area.

In March 1983, the Internal Control Manager instructed the centers and headquarters offices to do internal control reviews on the new inventory of internal control systems. The OMB guidelines were distributed as guidance. The Internal Control Officers were told in August 1983 they could substitute Inspector General reports or functional reviews for internal control reviews if they were structured in accordance with the OMB guidelines. Three of the four NASA centers we visited were doing internal control reviews in addition to functional reviews. The fourth center relied exclusively on functional reviews. At the time of our review NASA did not know how many reviews were completed. However, NASA reported that 15 percent of the internal control reviews were scheduled for completion in 1983, with the remainder to be completed in 1984.

NASA's annual report to the President and the Congress on the status of its internal controls was based on letters from Center Directors, Institutional Associate Administrators, the Comptroller, the Assistant Administrator for Procurement, the Director, Headquarters Administration Division and the Internal Control Manager. These letters were based, in part, on reports from the Internal Control Officers containing the results of their reviews for the past year. The Inspector General also submitted a report on NASA's implementation of the OMB guidelines. The letters noted several material weaknesses or problems, but the Administrator did not include them in the annual statement issued on December 23, 1983. The weaknesses or problems were not considered material in reporting to the President and the Congress.

ROLE OF NASA'S INSPECTOR GENERAL

NASA's Inspector General performed a critical role in implementing the act. The extent of this role is illustrated in the following activities. The Inspector General

- served as a member on the management team responsible for implementing the act,
- assisted in the preparation of NASA's instructions for evaluating the 105 management areas,
- included an evaluation of internal controls in audits,
- evaluated NASA's implementation of the OMB guidelines,
- provided the Administrator with an opinion on NASA's effort to implement the act, and
- provided technical assistance as requested.

In June 1983, NASA formalized the Inspector General's role in an agreement between the Inspector General and the Internal Control Manager.

MORE MANAGEMENT INVOLVEMENT NEEDED

One major objective of the act is to involve managers, at all levels, in the process of improving internal controls. Individual managers are the key to effective systems of internal control. Whether controls apply to administrative functions or to program activities, the manager is responsible for developing, implementing, and maintaining an effective and efficient internal control system as an integral part of the operations of the organization's programs and functions. Our evaluation disclosed numerous areas where NASA managers could be more involved in improving the implementation of the act. The following examples summarize some of these areas.

Supportive attitude

A supportive attitude is an important internal control standard. This standard requires agency managers to be attentive to internal control matters. Attitude affects the quality of performance and, as a result, the quality of internal controls. Attitude is not reflected in any one particular aspect, but rather is fostered by managers' commitment to achieving strong controls through actions concerning agency organization, personnel practices, communication, protection and use of resources, and general leadership. General leadership, in the final analysis, is critical to maintaining a positive and supportive attitude toward internal controls.

Some of NASA's actions have not reinforced this standard. For example, overall responsibility for organizing and directing NASA's internal control process has been assigned to the Associate Administrator for Management. Although this assignment complies with the OMB guidelines, responsibility has been left to one program analyst with little, if any, authority to implement NASA's internal control system. In addition, an internal control committee, composed of NASA's top managers, was formed to provide advice and guidance on the internal control activities, review the results of the evaluations and internal reviews, and monitor the corrective actions being taken. The committee is no longer active, and there is no formal record of their meetings or what they accomplished.

Managing the vulnerability assessment process

The primary objectives for performing vulnerability assessments were to (1) identify the potential for waste, loss, unauthorized use, and misappropriation and (2) schedule internal

control reviews in high-risk areas. We believe NASA's process was not effective in achieving these objectives throughout the agency.

The areas listed in the headquarters instruction were not of an appropriate nature and size as required by the OMB guidelines to facilitate meaningful assessments. Most of NASA's 105 management areas were processes that transcended an entire program or function rather than organizational units with specific responsible managers. For example, contract administration is an activity performed by the procurement office, technical monitors, and other delegates such as the Defense Contract Audit Agency and the Defense Contract Administration Service. The centers, as a result, could not adapt the areas to their operations which caused variations in the number and types of assessments performed. The following chart shows the variations in the number of assessments performed.

<u>Centers</u>	<u>Number of assessments</u>
Goddard Space Flight	32
Lewis Research	107
Marshall Space Flight	107
Johnson Space	72

The following example further illustrates the problem centers had in fitting their organizations into the headquarters inventory of management areas. The Johnson Space Center assessed the offices of the Space Station Program, Space Shuttle Program, and Space Shuttle Orbiter Project rather than doing separate assessments for each management area identified by NASA headquarters as project planning and evaluation, management information and controls, and change order control.

Some NASA managers had problems with the concept of self-assessment. They viewed the vulnerability assessments as report cards on their abilities rather than an assessment of risk. This concern was expressed by two of the four Internal Control Officers we interviewed. Managers evaluating themselves may be reluctant to report that their area is vulnerable to waste, loss, unauthorized use, or misappropriation. We believe this could have accounted for some of the skewed responses in the assessments (i.e., 632 low, 56 medium, and none high).

Scheduling internal control reviews in NASA may not be critical since none of the areas were rated high. However, NASA only plans to review those areas which remain in its inventory of internal control systems. The moderately vulnerable areas no longer in the inventory will not be reviewed. For example, the Johnson Space Center identified eight areas as moderately vulnerable. Six were dropped by Johnson Space Center because NASA headquarters deleted the areas from the inventory of

internal control systems; the other two areas were scheduled for review by functional review teams for procurement and financial management.

Quality assurance procedures

Procedures to ensure the quality and validity of the assessments and the internal control reviews need to be improved. Our analysis of 146 assessments and 16 reviews noted some problems. For example, at the Lewis Research Center, quality assurance procedures were not established, but the Internal Control Officer asked that someone at a higher level review the evaluations. However, only 1 of the 10 individuals who prepared the assessments indicated a quality assurance-type review was done. In most instances, only the preparer's supervisor reviewed the evaluations. On the other hand, Marshall Space Flight Center did provide some quality assurance, in that the Comptroller and Executive Staff Director examined the assessments to primarily ensure they were reviewed and approved by appropriate officials. However, we found some inconsistencies in the process. For example, some ratings of risk were averaged and some were not. One manager did not sign risk profiles as preparer, two did not sign as reviewers, and one manager was both the preparer and reviewer. In one instance, an assessment was shown as not being applicable to Marshall Space Flight Center, but was nonetheless rated low.

Documentation for internal control reviews at the Lewis Research Center was so limited that quality assurance was not possible. Seven of the eight reviews we evaluated were virtually devoid of any narrative that explained how internal controls worked or what process was used to evaluate them.

Training requirements

NASA had not established any training requirements relative to implementation of the OMB guidelines. We identified a few officials who attended an OMB governmentwide briefing on internal control methods and techniques. Two centers sent two individuals each to a 1-day seminar presented by an association. Although this training may have been helpful, it did not provide the "how to" instruction we believe is needed. We found some managers were not able to implement the internal control review process in the OMB guidelines. For example, we evaluated three internal control reviews at the Marshall Space Flight Center and found that the individuals performing the reviews did not understand key concepts such as "assessable unit" and "event cycle"--two new terms associated with the internal control review process. In another instance, internal control objectives and techniques had to be independently developed because managers and operating personnel did not know how. The 10 individuals we interviewed at Lewis Research Center stated that

they received no training before doing vulnerability assessments. Only one individual was aware of the OMB guidelines. Generally, these people were told to use their best judgment and get the job done on time. Vulnerability assessments and internal control reviews are something new for federal managers and training will be necessary to effectively implement the act.

Tracking and follow-up systems

NASA officials did not develop a tracking and follow-up system for corrective actions under the act. Instead, they are relying on existing procedures. We examined three follow-up systems currently in use for the functional reviews. To achieve corrective action, these systems rely on personal contact, correspondence, good faith, and the next regularly scheduled review. Although these elements are important in any system, a formal tracking and follow-up system would be more effective in ensuring the implementation of corrective action. NASA's systems have not been very effective. To illustrate, in a 1983 review of supply and equipment at NASA headquarters, 37 findings requiring actions were reported by the review team. Of these 37 findings, 11 were repeat findings from a 1981 review and an additional 7 findings were similar enough to indicate a repeat finding. In commenting on this report, NASA officials noted that corrective actions were prescribed for all findings and even though some have been completed, others remain open.

Another element of a formal tracking and follow-up system is timely response. In NASA's systems initial responses take an inordinate amount of time. We found some offices took as long as 9 months to provide formal comments on review team findings. During this time, corrective action may or may not have been initiated.

OMB's assessment of NASA's implementation of the guidelines

OMB evaluated NASA's implementation of its internal control guidelines in 1983. Although OMB's review team found that NASA headquarters made progress since the last review, they expressed several concerns similar to those expressed in this report. For example, OMB cited

- a lack of management commitment,
- few resources directed at internal control activities,
- no training for managers or staff,

--no tracking system to follow up on material weakness corrections, and

--limited quality control in the vulnerability assessment process.

In its September 1983 report, the OMB review team made several recommendations. Among those was a need to create a supportive climate by reconstituting a steering committee for policy guidance. Other recommendations included establishing a quality control process to ensure conformance and reliability and the development of training programs.

THE INVENTORY OF INTERNAL
CONTROL SYSTEMS MAY BE INCOMPLETE

NASA originally developed an inventory of 105 management areas that were subject to vulnerability assessments. In early 1983, NASA officials reduced the inventory to 26 areas which were formally designated as internal control systems. Their decision was based on the rationale that

--the 26 systems are those functions that directly ensure compliance with the act,

--87 percent of audit activity occurred in the 26 functional areas,

--all other control systems do not directly bear upon areas covered by the act, and

--these 26 systems provide the most cost-effective approach to meet the requirements of the act.

In a September 1983 report, OMB criticized NASA for reducing its inventory. OMB was concerned that the reduced scope of internal controls would result in only a partial examination of programs rather than an evaluation of the internal controls for an entire program or function. The OMB review team recommended the inventory be expanded to cover both functional and program areas.

On December 16, 1983, the Inspector General reported on the scope of NASA's internal control review program. After evaluating NASA's implementation, the Inspector General determined that the limited inventory of assessable units prevented a thorough and complete assessment of NASA's accounting and administrative controls. The Inspector General stated,

"Since the assessable unit inventory serves as the foundation on which a complete and thorough implementation rests, I believe that NASA management should reevaluate the adequacy of the currently identified inventory to meet the full intent of OMB's guidelines."

NASA'S PROGRAM FOR ACCOUNTING SYSTEM CONFORMANCE

NASA has made progress in implementing section 4 of the act. The headquarters' Comptroller is responsible for ensuring that NASA's accounting systems conform to the Comptroller General's principles, standards, and related requirements. An agencywide accounting system inventory was completed in January 1984. In addition to the inventory, NASA also identified accounting system enhancement projects.

NASA officials believe they have an accounting system evaluation mechanism in place. This mechanism, known as a financial management functional review, assesses whether NASA's accounting systems, internal controls and financial reports comply with requirements of its financial management manual. According to NASA officials, the Comptroller General's principles and standards are an integral part of the manual.

Financial management functional reviews are generally conducted every 18 to 24 months at headquarters and each center. The reviews are performed in two parts: (1) the completion of a questionnaire by installation officials and (2) an on-site review by a headquarters' review team. At the conclusion of the on-site review, the review team discusses areas of concern with managers and the results of the review are formalized into a functional review report. Headquarters or center managers are required to correct deficiencies. NASA review teams did eight financial management functional reviews during 1982 and 1983.

Functional review process weaknesses

Although financial management functional reviews can be a good tool for evaluating NASA's compliance with the Comptroller General's principles, standards and related requirements, we believe there were weaknesses in the process that may have precluded NASA from doing an adequate evaluation of its accounting systems. In seven of the eight functional reviews we assessed, NASA's review teams did not test accounting transactions or validate financial report data during on-site reviews. Testing and validating are essential to ensure that transactions and reports accurately and properly reflect the agency's financial operation. In addition testing and validating data will provide NASA a basis for a more meaningful certification under section 4 of the act.

OBJECTIVES, SCOPE, AND METHODOLOGY

The overall objectives of the assignment were to

- assess NASA's processes for evaluating and improving systems of internal accounting and administrative control for reporting under the act,
- evaluate NASA's reports to ensure that all identified material internal control weaknesses and accounting system deviations were reported, and
- evaluate the adequacy of plans for implementing corrective actions.

We obtained NASA management instructions and guidance for implementation of OMB guidelines from headquarters activities and Goddard Space Flight Center, Johnson Space Center, Lewis Research Center, and Marshall Space Flight Center, including inventories of each center's accounting system/subsystems. The centers we visited were selected because they represent a cross section of NASA's organization. In addition, at the centers and the Kennedy Space Center, we obtained data on NASA's current efforts to develop new systems or to enhance/redesign major accounting segments.

We examined 146 vulnerability assessments and interviewed 30 individuals who prepared the assessments to determine their methodology. We analyzed 16 internal control reviews and interviewed 14 individuals who performed the reviews. We also analyzed four follow-up systems--three in headquarters and one at the Lewis Research Center. Our work was conducted in accordance with generally accepted government auditing standards.

We performed a limited evaluation at both headquarters and NASA centers to determine if functional reviews were adequate substitution for compliance evaluations of accounting systems under section 4 of the act and internal control reviews under section 2.

Because our first-year review was limited to an evaluation of the implementation process, we did not attempt to independently determine the status of NASA's internal control systems or the extent to which their accounting systems comply with the Comptroller General's principles, standards and related requirements.

AREAS OF INTERNAL CONTROL WEAKNESSES AND
ACCOUNTING SYSTEM NONCONFORMANCE IDENTIFIED
BY NASA BUT NOT REPORTED

The act provides for agency annual reports to identify material weaknesses in internal control systems and state whether accounting systems conform with the Comptroller General principles and standards. NASA's annual report, dated December 23, 1983, stated that the accounting and administrative controls in effect during calendar year 1983, taken as a whole, provide reasonable assurance that the objectives of the act have been achieved. No material internal control weaknesses were reported. NASA also reported that its accounting systems conform in all material respects to the Comptroller General's principles and standards.

Although our review was not designed to identify or evaluate the materiality of deficiencies in NASA's internal controls or accounting systems, we have noted the following instances where various internal review activities reported weaknesses or accounting system problems that may affect the viability of its systems.

- In a December 1983 letter to the NASA Administrator, the Inspector General reported that the limited size and scope of NASA's inventory of internal control systems was a material weakness that affects its ability to fully comply with the requirements of the act. The letter also informed the Administrator that OMB's September 1983 report expressed concern over the adequacy of the inventory.
- In October 1983, the Assistant Administrator for Procurement provided the Internal Control Manager with a letter of assurance disclosing eight specific material weaknesses and a plan for corrective action. The weaknesses were reported in the areas of procurement management, pre-contract award, and contract administration. Corrective actions included such items as (1) develop a plan to increase competition in the large number of recurring noncompetitive contracts and (2) assess contractor performance to ensure the proper authorization of payments in a timely manner and in accordance with terms of the contracts.
- In November 1983, the Deputy Director, Headquarters Administration Division issued an assurance letter for their activities. The letter stated that no material weaknesses were found. However, the letter referred to a September 1983 functional review of Equipment and Supply Management that identified 37 findings--half being repeat

findings from a prior review. Many of the findings addressed problems in accounting for controlled equipment. For example, equipment was not recorded in accountable records, a wall-to-wall inventory was not completed resulting in inaccurate equipment records, and reconciliation statements between financial and equipment management records were not done as required. Failure to perform physical inventories and reconcile differences between inventory and accounting records are instances of nonconformance with the Comptroller General's principles and standards which could cause deficiencies in NASA's ability to control its property. In fact, a September 1982 NASA Inspector General review at the Ames Research Center noted that an unacceptable amount of property, valued at nearly \$1 million, was lost because prescribed property control procedures were not followed. In addition to the accounting problems, the functional review report listed six critical items that required correction to satisfy the requirements of the internal control systems.

The November 1983 assurance letter also discussed 10 weaknesses reported by the Inspector General on automated data processing security at NASA headquarters. Corrective actions were described for each weakness. For 3 of the 10 weaknesses corrective actions were scheduled for fiscal year 1984. Five other weaknesses had no corrective actions scheduled because of funding limitations which prevented the hiring of more staff or the purchase of special software. The remaining two weaknesses were not considered valid by NASA management and no corrective action was planned.

- Three financial management functional reviews, done at three different NASA centers during 1982, disclosed that costs in excess of obligations were being recorded in accounting records. This problem was a repeat finding of a 1980 report on the Kennedy Space Center. Functional review team officials concluded this practice could place the centers in a position of incurring an administrative violation or a statutory violation reportable to the Congress. We did not determine the severity of this problem. However, the review teams' findings raise questions about the recognition of cost and the recording of obligations. Proper consideration of these issues is essential in conforming with the Comptroller General's principles and standards for effective financial planning and fund control.

We believe some of the problems noted above may indicate material weaknesses which we may evaluate in more detail in our second-year review at NASA.



National Aeronautics and
Space Administration

Washington, D C
20546

Reply to Attn of NIP

MAR 26 1984

Mr. Frank C. Conahan
Director
National Security and International
Affairs Division
U. S. General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

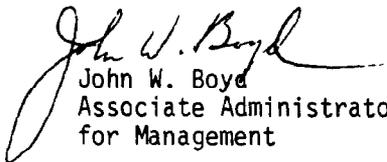
Thank you for the opportunity to comment on the General Accounting Office (GAO) draft report entitled "The National Aeronautics and Space Administration's First Year Implementation of the Federal Managers' Financial Integrity Act."

As you know, the intent of the Act called for accounting and administrative controls that provided reasonable assurance against waste, fraud, and mismanagement in the handling of obligations and costs, the safeguarding of funds, property, and other assets, and the proper recording of revenue and expenditures applicable to Agency operations. It was our view that this Agency's management approach, i.e., the coverage and administrative procedures we prescribed for NASA, provided reasonable assurance for the activities described by the Act.

It is apparent from the GAO draft report that additional coverage and more detailed administrative guidance are being recommended. We are carefully considering each of your recommendations, and are taking steps to respond as described in the enclosure to this letter. In this review, we also are attempting to apply the concept stated in the Office of Management and Budget (OMB) guidance, that is, the cost of obtaining reasonable assurance of internal control should not exceed the value of derived benefits and reduced risk. In this regard, it would be appreciated if GAO provided us with a schedule of planned audits for the remainder of the year to avoid unwarranted duplication by our Agency IG and Internal Control Officers.

Our detailed comments are provided in the enclosure.

Sincerely,


John W. Boyd
Associate Administrator
for Management

Enclosure

NASA Comments on GAO Draft Report
The National Aeronautics and Space Administration's First Year
Implementation of the Federal Managers' Financial Integrity Act
(GAO assignment Code 390004)

General:

Recommendation (Page 3-4)

"All levels of NASA management must be more involved in administering their internal systems."

The subject of internal control systems has been and will be discussed at General Management Status Reviews by the Associate Administrator for Management; this meeting is attended by key Agency managers. Guidance is being developed clarifying the quality assurance and oversight roles of both Headquarters and Center personnel involved in the internal control process. Plans are also underway to insure appropriate training of the concerned personnel. Tracking systems at both the Headquarters and Center level are now being revised to ensure timely follow-up of the needed corrective action. These actions will be completed by September 28, 1984.

Recommendation (Page 4)

"We concur with the position of the Office of Management and Budget (OMB) and the Inspector General and recommend the Administrator reevaluate the excluded systems to determine if internal control reviews of additional systems will contribute to more complete implementation and coverage under the Act."

The suggested reevaluation is in progress and initial indications are that it will result in additional coverage of both administrative and technical programs. These actions will be completed by September 28, 1984.

Recommendation (Page 4)

"In view of the number and sources of weaknesses being identified, we recommend the Administrator establish parameters for material weaknesses at various reporting levels and establish a policy for reporting weaknesses and defining the corrective actions planned."

Administrative guidance is now being developed which will clarify criteria for identifying a "material weakness," i.e., amount of funding or value of the assets involved, or whether a process problem may be involved. The guidance will consider the nature of problems which may be encountered at various reporting levels and define policy for reporting weaknesses and planned corrective actions. These actions will be completed by September 28, 1984.

NOTE: Where applicable, the page numbers have been changed to correspond to those in this report.

Recommendation (Page 5)

"In order to ensure that systems operate as intended and conform to Comptroller General principles and standards, we recommend that the NASA Administrator direct the Comptroller to test accounting transactions and validate report data when evaluating its accounting systems. This will provide NASA the basis for a more meaningful certification under Section 4 of the Act."

Pursuant to guidance from the Comptroller to the NASA Director of Financial Management, steps are now being taken to clarify guidance to Headquarters and Center personnel involved in internal control reviews. This guidance will include provisions for sample testing of selected transactions to permit reasonable assurance that a particular control system is effective. These actions will be completed by September 28, 1984.

Specific:

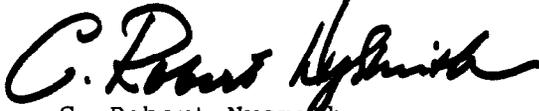
While providing different examples regarding the Lewis Research Center and the Marshall Space Flight Center, the draft report is unclear which Center is referred to by the broad statement that, "Documentation for internal control reviews was so limited that quality assurance was not possible." (Appendix I at page 6.) The statement is not correct if it is meant to encompass the Marshall Space Flight Center or apply generally NASA-wide. In order to avoid any misunderstanding about what the GAO found, NASA suggests that the statement be more specific and conform with the example the GAO provided immediately thereafter by rewording it as follows: "Documentation for internal control reviews at Lewis Research Center was so limited that quality assurance was not possible."

A description of the October 1983 assurance letter from the Assistant Administrator for Procurement (Appendix II at page 11) should be revised in the draft report in order to more accurately reflect its content. NASA suggests that the wording be changed in the last sentence of the description to the following: "Included were items needed to (1) develop a plan for competing recurring noncompetitive contracts where appropriate; and (2) take action to assess performance and ensure determinations by Fee Determination Officials, and contract modifications authorizing payment of award fee, occur in a timely manner and in accordance with terms of the contract."

The draft report makes reference to the 37 findings of a 1983 functional review of supply and equipment at NASA Headquarters in three different places (page 3; Appendix I at page 7; and Appendix II at page 11). Those references are used to exemplify a need for more effective follow-up but are not described sufficiently enough to preclude the possibility of an incorrect interpretation being made of the GAO's explanation about the matter. Absent clarification, the draft report implies that NASA Headquarters management did not follow-up on the 37 findings at all which is inaccurate. Therefore, NASA suggests that the draft

report be clarified to include the fact that corrective actions for all 37 findings were described in response to the functional review, and even though some of the corrective actions have been completed others remain open.

The draft report provides a suggestion to improve the accounting system conformance program for the NASA Comptroller that relies on problems identified in Appendix II relating to the inventory of property (cf., page 5, and Appendix II at page 12). The relationship made by the GAO presents a confusing picture of the NASA organization by giving the misimpression that the NASA Comptroller is responsible for the accomplishment of physical inventories of property at NASA Headquarters and field installations. Such a responsibility is in fact vested elsewhere in the NASA organization. In order to clarify the suggestion to recognize the organizational distinction, NASA submits that the statement pertaining to the NASA Comptroller be reworded (at page 5, by incorporating the following opening phrase: "Even though the NASA Comptroller is not charged with responsibility to perform the actual physical inventories of property, the NASA Comptroller should" This rewording would serve to make it apparent that the GAO's suggestion is not predicated on an implication that the NASA Comptroller has a direct responsibility for performing physical inventories of property throughout NASA.



C. Robert Nysmith
Acting Deputy Associate
Administrator for Management

GLOSSARY

The following definitions were developed by GAO for our review of the implementation of the Federal Managers' Financial Integrity Act.

Accounting System

The total structure of the methods and procedures used to record, classify, and report information on the financial position and operations of a governmental unit or any of its funds, or organizational components. An accounting system should assist in the financial management functions of budget formulation and execution, proprietary accounting and financial reporting.

Administrative Function

An activity in an agency which is carried out to support the accomplishment of an agency's programs, missions, or objectives. These activities may include automated data processing, travel, or consulting services. However, there is no uniform definition of administrative functions; each agency's may be unique.

Agency Component

A major organization, program, or functional subdivision of an agency having one or more separate systems of internal control, and a specific, responsible manager.

Assessable Unit

A program or administrative function or subdivision thereof which is to be the subject of a vulnerability assessment. An agency should identify its assessable units in such a way as to (1) include the entire agency and (2) facilitate meaningful vulnerability assessments. All agency programs or administrative functions must be assessed, with the exception of those involved in the performance of policy-making or statutory formulation.

Audit Resolution

Begins when auditors report their findings to management and completed only after management takes action. Management must either correct identified deficiencies, produce improvements, or demonstrate that findings are invalid. "Audit Resolution" is one of the Comptroller General's Standards for Internal Controls in the Federal Government.

Control Objective

A desired goal or condition for a specific event cycle, system, or subsystem. An agency's control objectives should be developed for each agency activity and should address the three objectives in the Federal Managers' Financial Integrity Act. An example of a control objective may be "Paychecks should be issued to all, and only, entitled persons." "Control Objectives" are one of the Comptroller General's Standards for Internal Controls in the Federal Government.

Control Technique

Any mechanism relied on to efficiently and effectively accomplish a control objective. These mechanisms, if operating as intended, help prevent fraud, waste, abuse, or mismanagement. An example of a control technique might be the comparison of automated personnel and payroll master files prior to computing and issuing paychecks. "Control Techniques" are one of the Comptroller General's Standards for Internal Controls in the Federal Government.

Documentation

That information which would allow an independent reviewer to reach the same conclusions as the original reviewer regarding an agency's internal controls; and the methods used, personnel involved, and conclusions reached in conducting its internal control evaluation, improvement, and reporting process. This information should be current and be available for review. "Documentation" of internal controls is one of the Comptroller General's Standards for Internal Controls in the Federal Government.

Event Cycle

A grouping of similar activities. An entity's activities can be grouped into a discrete number of cycles. These groupings are based on what is accomplished, and therefore facilitate the identification of cycle objectives. For example, most agencies will have a disbursement cycle which will include all events contributing to the objective of providing reasonable assurance that all payments are legal, proper, accurate, and timely.

General Control Environment

Those environmental factors that can influence the effectiveness of internal controls over program and administrative functions. An evaluation of the general control environment is the first step in the vulnerability assessment process required by OMB's Guidelines.

This evaluation may be performed for the component as a whole, or individually for each program and administrative function within the component. The determining factors would be the size, nature, and degree of centralization of the programs and functions conducted within the agency component.

Inherent Risk

The inherent potential for waste, loss, unauthorized use, or misappropriation due to the nature of an activity itself. An analysis of each assessable unit's inherent risk is the second step in the vulnerability assessment process required by OMB's Guidelines. OMB's Guidelines suggest that the matters to be considered in the analysis should include, but need not be limited to, the following: purpose and characteristics, budget level, impact outside the agency, age and life expectancy, degree of centralization, special concerns, prior reviews, and management responsiveness.

Internal Controls

The plan of organization and all coordinate methods and measures adopted by an agency to provide reasonable assurance that the three objectives of the Federal Managers' Financial Integrity Act of 1982 are achieved. Internal controls should be established in accordance with the Comptroller General's Internal Control Standards. Typically, an internal control represents the combination of a control objective along with a control technique (or set of techniques) which are being relied on to achieve that control objective.

Internal Control Review

A detailed examination of a system of internal control to determine whether adequate control measures exist and are implemented to prevent or detect the occurrence of potential risks in a cost effective manner. OMB's Guidelines recommend six steps for an internal control review: (1) identification of the event cycle, (2) analysis of the

general control environment, (3) documentation of the event cycle, (4) evaluation of internal controls within the cycle, (5) testing of the internal controls, and (6) reporting the results. Internal control reviews should normally be conducted for those areas rated as highly vulnerable in the vulnerability assessment process, where corrective action is not readily apparent. An agency should allocate resources for these detailed reviews of internal control based on vulnerability; those most vulnerable should be reviewed first.

Internal Control Standards

In 1983, the Comptroller General issued a set of Standards For Internal Controls In The Federal Government. The Federal Managers' Financial Integrity Act of 1982 requires each executive agency to establish internal accounting and administrative controls in accordance with these standards. There are five general standards, six specific standards, and one audit resolution standard. The five general standards are: (1) reasonable assurance, (2) supportive attitude, (3) competent personnel, (4) control objectives, and (5) control techniques. The six specific standards are: (1) documentation, (2) recording of transactions and events, (3) execution of transactions and events, (4) separation of duties, (5) supervision, and (6) access to and accountability for resources.

OMB Guidelines

The document issued by the Office of Management and Budget in December 1982, Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Government. An evaluation conducted in accordance with these guidelines is to provide a basis for an agency's annual statement required by the act.

Preliminary Evaluation of Safeguards

A judgment regarding the existence and adequacy of internal control over an assessable unit. This evaluation is the third step in the vulnerability assessment process required by the OMB Guidelines. The evaluation is preliminary in that a more in-depth review of internal controls is the focus of the internal control review phase. The preliminary evaluation of controls required here should be based largely on the evaluator's working knowledge of the existence and functioning of internal controls in the subject assessable unit.

Program

Generally, an organized set of activities directed toward a common purpose or goal, and undertaken or proposed by an agency in order to carry out its responsibilities. In practice, however, the term "program" has many meanings. It is used to describe the agency's mission, functions, activities, services, projects, and processes.

Quality Assurance

The process(es) or system(s) of an agency which provide reasonable assurance that the internal control evaluation, improvement, and reporting process established in accordance with the OMB Guidelines is carried out in a consistent, accurate, and reliable manner. These processes or systems will form part of the basis for the annual assurance letters, and statement to the President and the Congress. An agency's quality assurance has several essential elements, including appropriate documentation for the internal control evaluation process, appropriate IG role in the process, adequacy of resources and overall organization of the process, appropriate training for managers with internal control responsibilities, and assuring that actions taken will correct weaknesses permitting fraud, waste, or mismanagement.

Reasonable Assurance

Internal control systems should provide reasonable, but not absolute, assurance that the objectives of the system will be accomplished. This concept recognizes that the cost of internal control should not exceed the benefit expected to be derived therefrom, and that the benefits consist of reductions in the risks of failing to achieve stated objectives. Estimates and judgments are required to assess the expected benefits and related costs of internal controls. Errors or irregularities may occur and not be detected because of inherent limitations in any internal control, including those resulting from resource constraints, or congressional restrictions. "Reasonable assurance" is one of the Comptroller General's Standards for Internal Controls in the Federal Government.

Segmentation

The process by which an agency identifies its assessable units; i.e., its programs and administrative functions. The inventory of assessable units developed as a result of

this process must be appropriately detailed so as to provide a basis for the conduct of meaningful vulnerability assessments. The OMB Guidelines provide that all the agency activities, except those concerned with policymaking, should be included in the inventory.

There is no single best method to segment an agency, particularly in light of variations in agency organization structure and responsibilities.

Specific Risk

A judgment regarding the likelihood and magnitude of error or irregularity in the event cycle being evaluated. These judgments represent an essential element of the fourth step recommended by OMB in its Guidelines for an internal control review: "Evaluation of the internal controls within the event cycle." The judgment regarding specific risk is based on a comparison of control objectives with related control techniques. Based on this evaluation, the amount and type of control testing, OMB's fifth step in an internal control review, will be determined.

Testing

The examination of available evidence to determine whether internal controls are functioning as intended. Testing is the fifth step recommended in OMB's Guidelines for the performance of an internal control review.

The nature of the controls, the significance of the cycle, importance of control objective, the nature of the specific risks, possible compensating controls, testing resources, and timing must all be considered in developing appropriate tests. Generally, testing can be categorized as either "compliance" or "substantive." Compliance testing is generally used when the judgment regarding specific risk has given reason to rely on a control technique. It is designed to verify if one or more internal control techniques are operating. The other category of testing, "substantive" testing, is used when the specific risk is sufficiently great that the control cannot be relied on. A substantive test is designed not to verify the operation of a control technique but rather to verify the results of the process to which the control was applied.

Vulnerability Assessment

A biennial review of the susceptibility of an assessable unit to the occurrence of waste, loss, unauthorized use, or misappropriation. OMB's Guidelines prescribe three basic

steps for the conduct of vulnerability assessment: (1) analyze the general control environment, (2) analyze the inherent risk, and (3) perform a preliminary evaluation of existing safeguards.

The primary purpose of vulnerability assessments is to determine if and in what sequence resources should be allocated for the performance of internal control reviews.

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