National Aeronautics and Space Administration

Office of Inspector General Washington, DC 20546-0001



September 25, 2008

TO: Chief Financial Officer Chief Information Officer Deputy to Chief Information Officer Director, Marshall Space Flight Center
FROM: Assistant Inspector General for Auditing
SUBJECT: Final Memorandum on NASA's Development of the Integrated Asset Management – Property, Plant, and Equipment Module to Provide Identified Benefits (Report No. IG-08-032; Assignment No. A-08-001-00)

The Office of Inspector General conducted an audit of NASA's Integrated Asset Management – Property, Plant, and Equipment (IAM/PP&E) module. A component of NASA's Integrated Enterprise Management Program (IEMP), the IAM/PP&E module is an automated asset-management system that performs two main functions: equipment management (logistics) and asset accounting (finance) and was designed to integrate logistics and financial processes to account for and facilitate management of NASA personal property.

Our overall objective was to determine whether NASA adequately defined the IAM/PP&E module's project requirements to achieve identified benefits and address stakeholder needs. Specifically, we focused on determining whether NASA adequately defined its project requirements to ensure that the module provided the following benefits: (1) more accurate, timely valuation of PP&E; (2) improved valuation, capitalization, and depreciation processes; (3) improved audit trail of capitalized¹ PP&E; (4) standardization of NASA-held and contractor-held property management processes; (5) elimination of manual processes; and (6) reduced operational costs. An additional objective, initially, was to determine the status of the IAM/PP&E module project and whether the project's cost and schedule estimates were reasonable and reliable. The IAM/PP&E module went live in May 2008, and the project's actual costs were within the total budget of approximately \$30 million. Inasmuch as the project has been implemented and was completed within budget, we make no further comment on the schedule or budget in this memorandum.

¹ Capitalized assets identify property that has a value of \$100,000 or more, a useful life of at least 2 years, and an alternative future use. If the asset is internal use software, the value must be \$1 million or greater.

We conducted our audit at Marshall Space Flight Center and NASA Headquarters. (See Enclosure for details on the audit's scope and methodology.)

Executive Summary

We found that NASA adequately defined the IAM/PP&E module project requirements to ensure the six benefits are achieved and that the achievement would be measurable. To determine that the project requirements were adequately defined, we verified that the requirements were crosswalked to each anticipated benefit; we verified that project personnel had reviewed the Federal financial system requirements and could trace the project requirements to the Federal requirements; and we reviewed the project's Performance Measurement Plan to verify that a performance measure could be tied to each of the six identified benefits. We determined that the IAM/PP&E module, as designed, and the corresponding changes in NASA's business processes and controls should help mitigate deficiencies reported as material weaknesses by Ernst and Young (E&Y), the independent public accounting firm that conducted the audit of NASA's financial statements for the past 4 years.

We also found that, to help ensure that stakeholders' needs were met, project management incorporated stakeholders in the requirements development process. Stakeholders identified and reviewed project requirements and, during system development, helped determine whether each portion of the system would meet their requirements. Stakeholders also participated in IAM/PP&E Steering Committee meetings.

We note, however, that the system's contribution to improved financial reporting may be limited by inaccurate data. NASA did not validate approximately 6,300 records of capital assets that have an acquisition value of \$32 billion (and a net value of approximately \$18.6 billion) prior to transferring the data into IAM/PP&E. In addition, NASA has not resolved an operating policy issue involving identifying purchases of controlled equipment, which could bear on the successful operations of the system. However, we did not conduct audit work to address the impact of these issues because E&Y plans to perform tests of the IAM/PP&E module and NASA's corresponding manual controls as part of the fiscal year (FY) 2008 financial statement audit. Accordingly, we made no recommendations for management action. We issued a draft of this memorandum on September 17, 2008, and provided NASA management an opportunity to comment on the draft, but comments were not required and no formal comments were received.

Background

As part of its FY 2007 report on NASA's financial statement, E&Y, in its "Report on Internal Control," dated November 13, 2007, identified significant deficiencies that it considered to be material weaknesses under standards established by the American Institute of Certified Public Accountants. E&Y identified material weaknesses in NASA's controls for financial systems, financial analyses, oversight used to prepare the financial statements, and processes for assuring that PP&E and materials are presented fairly in the financial statements. In addition, E&Y stated that NASA's financial management systems are not substantially compliant with the Federal Financial Management Improvement Act (FFMIA) of 1996,² noting that certain subsidiary systems, including all property systems, are not integrated with NASA's Systems Applications and Products (SAP) Core Financial module. Core Financial—customized off-the-shelf software that serves as the backbone to the IEMP—is used to record accounting transactions including commitments, obligations, and expenditures and to produce NASA's annual financial statements.

NASA developed the IAM/PP&E module in part to address the material weaknesses identified by E&Y. The module replaced the logistics legacy systems NASA Equipment Management System (NEMS) and NASA Property Disposal Management System (NPDMS) and the personal property records in NASA's Contractor-Held Asset Tracking System (CHATS). NEMS was a transaction-based system that linked every controlled equipment item to a unique Equipment Control Number and provided NASA an Agencywide system to simplify, standardize, and reduce the cost of tracking and managing equipment items. NPDMS provided NASA with an Agency-wide disposal management tracking system to support operational requirements for the utilization, transfer, donation, sale, or other disposal mechanism for idle NASA personal property. Through CHATS, approximately 50 contractors holding the highest dollar value of NASA-owned, contractor-held property are required to report the status of the property to the Chief Financial Office's Property Branch on a monthly basis (all others report status annually). The IAM/PP&E module was designed to account for and facilitate management of NASA- and contractor-held accountable personal property and capitalized personal property (i.e., equipment, internal-use software, leased personal property, and work-inprocess assets).³

Project managers reported that the total value of NASA's accountable personal property that the IAM/PP&E module manages includes all of the approximately \$18.4 billion of the net Space Exploration PP&E and \$206 million of net General PP&E (out of a total of \$2.2 billion of General PP&E) reported in the NASA FY 2007 financial statements. The IAM/PP&E module cost approximately \$30 million.

For major Federal investments, such as the IAM/PP&E module, the Office of Management and Budget (OMB) Circular No. A-11, "Preparation, Submission, and Execution of the Budget," requires Federal agencies to identify anticipated benefits of the investment in Exhibit 300, "Capital Asset Plans and Business Cases," to ensure that a business case is made that can be tied to the agency's mission statements, long-term goals, and objectives. We focused our audit on determining whether NASA adequately

² FFMIA requires each Agency to implement systems that comply with Federal financial management system requirements, applicable Federal accounting standards, and the Standard General Ledger at the transaction level.

³ The IAM/PP&E module does not include real property (land, buildings, other structures and facilities, leased property, leasehold improvements, and modifications to real property) or operating materials and supplies.

defined its project requirements to ensure the benefits listed in the Exhibit 300 are achieved.

Project Requirements, Identified Benefits, and Stakeholder Input

We found that NASA adequately defined its project requirements to ensure anticipated, measurable benefits would be achieved and that stakeholders' input was incorporated in the requirements development process. We reviewed the Exhibit 300s for the IAM/PP&E module submitted in 2006 for budget year 2008 and in 2007 for budget year 2009 to determine the identified benefits. We verified that the logistics and financial stakeholders participated in determining and approving requirements during the project's formulation and throughout its implementation.

Project Requirements

The IEMP identifies project requirements in terms of levels:

- Level I (guiding principles),
- Level II (functional drivers),
- Level III (high-level requirements),
- Level IV (detailed functional and technical requirements), and
- Level V (specific software implementation requirements) to define project requirements.

To determine that the project requirements were adequately defined, we verified that the IAM/PP&E module project's Level III requirements, which include the main features to be delivered, were crosswalked to each of the anticipated benefits. We further verified that the IAM/PP&E module project personnel had reviewed the Federal financial system requirements in the Joint Financial Management Improvement Program (JFMIP) Systems Requirements (SR) JFMIP-SR-00-4, "Property Management System Requirements," October 2000, and could trace Level IV project requirements, which are more descriptive than the Level III high-level requirements, to the Federal requirements. We also reviewed the IAM/PP&E module project's Performance Measurement Plan to verify that a performance measure could be tied to each of the six benefits identified in the Exhibit 300s,⁴ and all contribute to the two main functions of IAM/PP&E: equipment management (logistics) and asset accounting (finance).

The logistics function is intended to allow equipment managers to record information about each piece of NASA-owned or contractor-held equipment such as description, location, cost, capital asset indicator, and Work Breakdown Structure (WBS) element. The WBS element is developed by identifying the system or project end item, then successively subdividing it and numbering each subsidiary work product or element. NASA Interim Directive (NID) 9250-56, "Identifying Capital Assets and Capturing Their Costs," November

⁴ We did not assess the performance measurements and offer no opinion on the quality of those measurements. As E&Y will be testing and reviewing system compliance with the FFMIA in the financial statement audit, we did not test the project's ability to, for example, transition transactions to the general ledger or system controls.

1, 2007, requires project managers to identify all capital assets with unique WBS elements. The Directive requires anyone acquiring a capital asset, based on the definitions provided in an Alternative Future Use Questionnaire, which is completed by project managers and reviewed by property accountants, to create a separate WBS element in the system and flag each WBS with a capital asset indicator. To assist logistics stakeholders with managing equipment in the IAM/PP&E module, project staff developed N-PROP (NASA properties), a Web-based portal for acceptance and custodial oversight of NASA property. Equipment holders are notified by e-mail of actions they need to take to document individual pieces of equipment. N-PROP provides easy access to property-related actions as well as basic reports that provide visibility into all NASA property.

The finance function is intended to improve the financial management of capitalized personal property, which will enhance the Agency's ability to meet its financial reporting requirements. The unique WBS elements allow the capital attribute to be easily tracked through the system interface in Core Financial to the various other financial modules. Use of unique WBS elements will make it possible to track activity associated with each capital asset throughout its life cycle, capturing work-in-progress costs for capital assets as they are being procured and fabricated. The improvements are expected to address material weaknesses in NASA internal controls over PP&E that contributed to NASA receiving a disclaimer of opinion on its financial statements.

Identified Benefits and Performance Indicators

In the Exhibit 300s submitted for the IAM/PP&E module, NASA identified the anticipated benefits of the IAM/PP&E module as (1) more accurate, timely valuation of PP&E; (2) improved valuation, capitalization, and depreciation processes; (3) improved audit trail of capitalized PP&E; (4) standardization of NASA-held and contractor-held property management processes; (5) elimination of manual processes; and (6) reduced operational costs.

Valuation of PP&E. Prior to the implementation of the IAM/PP&E module, accountable personal property was tracked in NEMS. Tracking required the monthly transfer of data, manually, to the financial system, which was time-consuming and resulted in inaccurate information being transferred to the financial system. The IAM/PP&E module is expected to achieve accurate, timely valuation of PP&E through integrating the logistics and financial systems. Level III requirements for the IAM/PP&E module supporting this anticipated benefit include

- creating integrated processes for sharing operational and cost data;
- creating processes that integrate with Core Financial to establish and maintain capitalized personal property values contained in general ledger accounts for NASA-held equipment and for NASA-owned, contractor-held equipment; and
- establishing the capability to track and report work-in-progress costs, and upon completion of fabrication, moving the cost from work in progress to a final capitalized asset, if the capitalization criteria are met.

The performance measure associated with the anticipated benefit of accurate and timely valuation is the percentage of NASA capital assets recorded in the system that have completed entries for the capital asset indicator field. The goal is to increase the percentage of new capital assets that have completed entries for this indicator as new assets are acquired and identified. As capital assets that do not have completed entries for the capital asset indicator field drop off at the end of their life cycle, the percentage of capital assets with the indicator will increase.

Valuation, Capitalization, and Depreciation Processes. Prior to implementation of the IAM/PP&E module, property accountants manually tracked the depreciable value of capitalized equipment from reports in NEMS and CHATS using a spreadsheet. Property accountants combined the depreciated total of all items on the spreadsheet and made one journal voucher entry to the general ledger. This manual process of calculating depreciation did not allow for tracking the depreciation of individual assets throughout their life cycle.

The IAM/PP&E module is expected to allow for improved valuation, capitalization, and depreciation processes through automated processes and related policy changes, such as NID 9250-56. The IAM/PP&E module uses asset master records instead of a summary of accounting records. These asset records allow property accountants to perform automated depreciation calculations within the financial system and other asset-related calculations at the individual asset level. The asset records serve as the property subsidiary ledger to the Core Financial Standard General Ledger and allow for a full and automated integration of the accounting and property systems. Level III requirements for the IAM/PP&E module supporting this anticipated benefit include

- creating capitalized personal property records that establish and maintain original cost, original acquisition date, placed in service date, accumulated depreciation, and net book value; and
- establishing the capability to calculate, assign, and record depreciation cost to each capitalized item of personal property consistent with generally accepted accounting principles as identified by the Federal Accounting Standards Advisory Board (FASAB).

The performance measure associated with the anticipated benefit of improved valuation, capitalization, and depreciation processes is the number of automated transactions in Core Financial related to capital personal property assets. The goal is to reduce the number of assets processed manually.

Audit Trail of Capitalized PP&E. Prior to the implementation of the IAM/PP&E module, the depreciation of capitalized assets was combined and done through one journal voucher entry. Information for individual depreciated items had to be manually researched and retrieved. With the IAM/PP&E module in place, accountants are able to see, at the individual asset level, out-years' and current month's depreciation. The IAM/PP&E module is expected to also achieve this benefit through the processes described under "Valuation of PP&E" and the "Valuation, Capitalization, and Depreciation Processes." Therefore, many of the same Level III requirements mentioned

previously apply to this anticipated benefit. An additional Level III requirement specific to this anticipated benefit requires management of accountable personal property using the mandatory requirements of the Federal Property Management Systems Requirements.

The performance measure associated with this anticipated benefit is a reduction in the number of property-related recommendations in the independent auditor's annual report on NASA's financial statements.

Property Management Processes. Standardization of the management of NASA- and contractor-held property will result from the use of the WBS elements to track costs of property acquisitions (fabrications and purchases) as described in NID 9250-56. Level III requirements for the IAM/PP&E module supporting this anticipated benefit include

- providing access to data on a project's WBS, with the capability to track costs (resources) against the WBS to support reengineered business processes for capitalized personal property;
- creating access to real-time information about the condition of accountable personal property, its location, value, and status; and
- providing real-time data concerning the condition and location of mission critical, accountable personal property.

The performance measure associated with this anticipated benefit calls for determining the number of equipment master records synchronized with the capitalized records in asset accounting. The goal is to increase the percentage of integrated records.

Manual Processes. Prior to implementation of the IAM/PP&E module, property accountants manually recorded property and depreciation calculations in the general ledger. The IAM/PP&E module is expected, through the integration of logistics and financial systems, to eliminate manual processes such as recording journal voucher entries, calculating depreciation of assets, and maintaining Excel spreadsheets. Also, prior to IAM/PP&E implementation, only equipment managers could accept property using NEMS and dispose of property using NPDMS. All other users completed paper forms to document equipment logistics and did not have access to determine available excess equipment, particularly in other Centers. With IAM/PP&E, end-users can accept equipment that is identified for property disposal. Level III requirements for the IAM/PP&E module supporting this anticipated benefit include

- providing the capability to track and manage loans, leases, borrows, transfers, and cannibalizations of accountable personal property and
- providing accountable personal property users and owners the capability to readily access any data that they need and are authorized to have.

Several performance measures are listed in the Performance Measurement Plan related to this anticipated benefit such as the number of automated transactions in Core Financial related to capitalized personal property, the total number of users with access to N-PROP,

and the number of items from excess property transferred or reutilized with the transactions made electronically. The goal is to increase the percentage of each performance measure.

Operational Costs. Previously, NEMS and NPDMS were used to track equipment and property disposal and neither was integrated with the financial system. Operational costs are expected to be reduced as a result of decommissioning NEMS and NPDMS and implementing the IAM/PP&E module and N-PROP. With N-PROP, NASA staff and contractors can see and search excess property and equipment across all Centers for reutilization and borrowing rather than purchasing. Logistics managers expect that the IAM/PP&E module will result in operational cost savings by facilitating the reutilization of equipment. Some of the Level III requirements associated with this benefit are

- providing internal screening of excess accountable personal property to increase reutilization across the Agency and
- establishing processes that promote inter-Center equipment transfers and loans and reduce unnecessary procurements.

The performance measure associated with this anticipated benefit is the number of legacy systems replaced by the IAM/PP&E module and reutilization of excess property. The goal is to increase the percentage of each performance measure, which should correlate to cost reductions as legacy systems are decommissioned and excess property is identified and reutilized.

Stakeholder Input

Stakeholders were included as part of the IAM/PP&E module formulation and implementation. Stakeholders identified project requirements, reviewed requirements the project team developed, and made a determination as to whether each portion of the system developed would meet their requirements. Stakeholders also participated in IAM/PP&E Steering Committee meetings. The IAM/PP&E Project Manager said feedback from the users usually involved minor changes. The IAM/PP&E module delivers a system that stakeholders see as a vast improvement over the legacy systems.

Other Issues

We identified two management issues that we believe, if resolved, would enhance the functionality of the IAM/PP&E module and improve NASA's property management and property accounting. These issues concern validating migrated capital asset data and identifying purchases as controlled equipment at the time they are ordered.

Unvalidated Balances Transferred. Approximately 6,300 records of capital asset data with a gross cost of \$32 billion (and a net value of approximately \$18.6 billion) were migrated to the new system without revalidating old property balances. These records were previously maintained on Chief Financial Office Property Accounting Branch spreadsheets. Though NASA did not validate the accuracy of the balances, the Agency

plans to allow the capitalized items to "roll off" the books at the end of their depreciation period. As these older assets are fully depreciated over time, new acquisitions will be accounted for in the IAM/PP&E module under improved accounting practices. NASA's strategic focus is to have the newly acquired property values be correct. The Chief Financial Officer, NASA Office of Inspector General, E&Y, and the Audit and Finance Committee have all agreed on this approach after considering the cost-benefit of validating the accuracy and completeness of the historical property values, but await additional guidance from the FASAB. The FASAB task force developing implementation guidance for Federal general PP&E will tackle the issue of how to address and report balances for old, unauditable property at those agencies that have not received unqualified opinions on their financial statement audits.

Inadequate Accounting for Controlled Equipment. In June 2007, the Government Accountability Office (GAO) reported that NASA's equipment management policy allows employees to bypass the Agency's central receiving function—which should serve as the primary control point for receipt and acceptance—and does not limit the amount or type of equipment purchases that may be sent directly to an end-user. GAO reported that

for controlled equipment that NASA does not report on its financial statements, the system was not being designed with front-end controls that would identify or flag these purchases as equipment when the item is ordered. Instead, NASA relies on end-users to ensure that equipment is entered into the property management system after it has been received.⁵

GAO recommended adoption of a standard business process supported by the software to ensure that the new system would be capable of identifying purchases as controlled equipment when ordered.

When we discussed the GAO report with IAM/PP&E Project managers and the logistics stakeholder, they explained that GAO's recommendation for controlled equipment goes beyond the changes in accounting for capital assets called for in NID 9250-56 and was outside the scope for the IAM/PP&E module during its implementation. The controlled equipment recommendation required changes to business processes in more than the logistics and financial functional areas, such as for equipment requisitioning and procurement processes. Thus, NASA did not incorporate the GAO recommendation into the IAM/PP&E module at the time of the current release. However, identifying purchases as controlled equipment when ordered is an important control for ensuring that the Agency's equipment records are updated on receipt and acceptance of controlled equipment.

Conclusion

If the IAM/PP&E module functions as designed, along with its corresponding changes in business processes and controls, it should help to mitigate reported deficiencies with

⁵ Government Accountability Office. "Property Management: Lack of Accountability and Weak Internal Controls Leave NASA Equipment Vulnerable to Loss, Theft, and Misuse" (GAO-07-432, June 25, 2007).

PP&E, which E&Y considered material weaknesses. This should allow for the fair presentation of personal PP&E in future financial statements and demonstrate integration into an automated financial system. We additionally believe that cost and schedule estimates were reasonable and reliable. However, we note that the system's contribution to improved financial reporting may be limited because approximately 6,300 records of migrated capital assets with a gross cost of \$32 billion were not validated prior to their transfer into the IAM/PP&E module. Also, issues related to identifying purchases as controlled equipment when ordered remain unresolved.

We did not conduct audit work to address the impact of these issues because E&Y plans to perform testing procedures over the IAM/PP&E module and NASA's corresponding manual controls as part of the FY 2008 financial statement audit.

We appreciate the courtesies extended during our review. If you have any questions, or need additional information, please contact Mr. Daniel R. Devlin, Human Capital and Institutional Management Director, at 202-358-7249.

/s/ Evelyn R. Klemstine

Enclosure

Scope and Methodology

We performed this audit from November 2007 through September 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Specifically we,

- Reviewed IAM/PP&E requirements in the project's Business Case Analysis, scope documents, and OMB Exhibit 300s for budget years 2008 and 2009.
- Identified project requirements incorporated in the implementation through the IAM/PP&E module project's Agile Scrum developmental Sprints.
- Verified that the project had performed a crosswalk of the project's Level III requirements to the six benefits on the OMB Exhibit 300s for budget years 2008 and 2009.
- Reviewed Office of Federal Financial Management (OFFM) system requirements as listed in the Federal Financial Systems Integration Office (FSIO) or JFMIP Property Management Systems Requirements.
- Verified the project's crosswalk of Level IV requirements to the requirements of federal financial management systems maintained by OFFM.
- Held discussions with IAM/PP&E module project managers, and business process owners from both the logistics community and the Office of the Chief Financial Officer.
- Determined metrics for benefits of the project as listed on the OMB Exhibit 300s, and compared them with the metrics in the Performance Measurement Plan.
- Reviewed the relationship of the anticipated benefits with the Level III requirements for the IAM/PP&E module project.

Criteria

Federal Policy

- Federal financial system requirements in JFMIP-SR-00-4, "Property Management System Requirements," October 2000. The property management system requirements are part of a series of publications entitled Federal Financial Management System Requirements (FFMSR). FFMSR specifies the mandatory functional and technical requirements that agency financial management systems must meet in order to be considered compliant with Federal standards as mandated by the FFMIA.
- OMB Circular A-11, "Preparation, Submission, and Execution of the Budget," July 2007, establishes policy for planning, budgeting, acquisition and management of Federal capital assets, and provides instruction on budget justification and reporting requirements for major information technology investments.

- OMB Circular A-127, "Financial Management Systems," December 1, 2004, requires Federal agencies to establish an integrated financial management system designed to provide complete, reliable, consistent, timely, and useful financial management information on operations to facilitate efficient and effective delivery of programs. The OMB Circular A-127 requires that Federal financial systems follow the requirements of the OFFM, which replaced the FSIO and the JFMIP. Requirements with the FSIO or JFMIP prefix remain applicable.
- OMB Circular A-136, "Financial Reporting Requirements," revised June 29, 2007, provides guidance on the data required for all Federal financial reporting. It requires that Federal agencies must generally prepare and submit audited financial statements to the OMB. Agencies are required to provide assurances related to the FFMIA. The FFMIA assurance statement should provide management's assessment of the organization's compliance with federal financial management systems requirements, standards promulgated by the FASAB, and the US Standard General Ledger at the transaction level.

NASA Policy

- NASA Interim Directive (NID) 9250-56, "Identifying Capital Assets and Capturing Their Costs," November 1, 2007. This NID establishes NASA's procedural requirements for identifying when a PP&E purchase and/or fabrication meets the criteria for capitalization and for segregating the costs of the asset from other project costs so that assets can be properly recorded on NASA's financial statements. This NID describes the process, roles, and responsibilities for identifying those PP&E that must be capitalized; establishing a WBS element to accumulate the PP&E's costs; and reporting those costs.
- NASA Policy Directive (NPD) 4200.1B, "Equipment Management" (Revalidated January 23, 2006). This NPD establishes the financial control, accounting, and reporting requirements for Government-owned equipment, based on the value of the equipment and/or the sensitivity of the equipment. This NPD also mandated the use of the NASA Equipment Management System (NEMS), one of the legacy systems replaced by the IAM/PP&E module. NPD 4200.1B states that equipment includes all items of NASA personal property that are configured as mechanical, electrical, or electronic machines, tools, devices, and apparatuses that have a useful life of 2 years or more. Equipment valued at \$100,000 or greater is subject to the financial control, accounting, and reporting requirements of NASA Financial Management Requirement (FMR) Volume 6, Chapter 4, Property, Plant and Equipment, November 2006. Equipment valued from \$5,000 to \$99,999 will be controlled but not subject to all the requirements of FMR Volume 6, Chapter 4.
- NPR 7120.5C, "NASA Program and Project Management Processes and Requirements," March 22, 2005. NPR 7120.5C defines the management requirements for formulating, approving, implementing, and evaluating NASA programs and projects. These requirements include the responsibility of the Project Manager for providing defensible estimates of the project's life-cycle cost.

- NASA FMR Volume 2, "Financial Information Systems," June 2006, gives the Chief Financial Officer the responsibility to review and approve the design requirements for the development and enhancement of NASA financial systems, monitor and evaluate the implementation of these systems, and function as the business process owner and decision maker for the use and management of NASA financial systems.
- NASA FMR Volume 6, Chapter 4, "Property, Plant and Equipment," November 2006 sets forth general principles, standards, policies, and procedures to assure compliance with statutory and regulatory requirements regarding NASA's PP&E. These requirements ensure effective financial control over NASA-owned PP&E.

Computer-Processed Data. We did not rely on computer-processed data for this report.

Review of Internal Controls. We reviewed and evaluated the internal controls associated with oversight structure in managing the IAM/PP&E module project. This included an evaluation of polices, procedures and oversight activities of the IAM/PP&E module Project Office to ensure they were in accordance with established requirements. We did not find reportable internal control weaknesses.

Prior Coverage. During the last 5 years, the Government Accountability Office (GAO) and the NASA Office of Inspector General have issued 17 reports of particular relevance to the subject of this report. Unrestricted reports can be accessed over the Internet at http://www.gao.gov (GAO) and

http://www.hq.nasa.gov/office/oig/hq/audits/reports/FY07/index.html (NASA).

Government Accountability Office

"Financial Management - Long-standing Financial Systems Weaknesses Present a Formidable Challenge" (GAO-07-914, August 3, 2007)

"Business Modernization: NASA Must Consider Agencywide Needs to Reap the Full Benefits of Its Enterprise Management System Modernization Effort" (GAO-07-691, July 20, 2007)

"Property Management: Lack of Accountability and Weak Internal Controls Leave NASA Equipment Vulnerable to Loss, Theft, and Misuse" (GAO-07-432, June 25, 2007)

"Business Modernization: Some Progress Made toward Implementing GAO Recommendations Related to NASA's Integrated Financial Management Program" (GAO-05-799R, September 9, 2005)

"Performance Budgeting: Efforts to Restructure Budgets to Better Align Resources with Performance" (GAO-05-117SP, February 1, 2005)

"NASA: Lack of Disciplined Cost-Estimating Processes Hinders Effective Program Management" (GAO-04-642, May 28, 2004)

"Information Technology Management: Governmentwide Strategic Planning, Performance Measurement, and Investment Management Can Be Further Improved" (GAO-04-49, January 12, 2004)

"Business Modernization: Disciplined Processes Needed to Better Manage NASA's Integrated Financial Management Program" (GAO-04-118, November 21, 2003)

"Business Modernization: NASA's Challenges in Managing Its Integrated Financial Management Program" (GAO-04-255, November 21, 2003)

"Business Modernization: NASA's Integrated Financial Management Program Does Not Fully Address Agency's External Reporting Issues" (GAO-04-151, November 21, 2003)

"Information Technology: Architecture Needed to Guide NASA's Financial Management Modernization" (GAO-04-43, November 21, 2003)

"Business Modernization: Improvements Needed in Management of NASA's Integrated Financial Management Program" (GAO-03-507, April 30, 2003)

National Aeronautics and Space Administration

"Audit of NASA's Fiscal Year 2007 Financial Statements" (IG-08-001, November 15, 2007)

"System Integration Testing of the Systems, Applications, and Products Version Update Project Needed Improvement" (IG-07-031, September 28, 2007)

"Governance of the Systems, Applications, and Products Version Update Project Needed Improvement" (IG-07-003, November 21, 2006)

"NASA's FY 2006 Financial Statements" (IG-07-004, November 20, 2006)

"Final Memorandum on Audit of the Implementation of Integrated Financial Management Program (IFMP) Audit Recommendations" (IG-05-008, February 1, 2005)